

**BEFORE THE NATIONAL GREEN TRIBUNAL, WESTERN ZONE
BENCH, PUNE
APPLICATION NO. 122 OF 2015**

Samita Rajendra Patil & Anr.

... Applicants

Versus

Jindal Steel Works Ltd. & Ors.

... Respondents

COMPILATION OF DOCUMENTS ON BEHALF OF RESPONDENT NOS. 1 AND 2

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**IN THE HIGH COURT OF JUDICATURE AT BOMBAY
ORDINARY ORIGINAL CIVIL JURISDICTION**

PUBLIC INTEREST LITIGATION NO.87 OF 2006

Bombay Environmental Action Group and another.	... Petitioners.
V/s.	
The State Of Maharashtra and others.	... Respondents.

WITH
WRIT PETITION NO.2741 OF 2017

Rajhans Estates And 5 Others.	... Petitioner
V/S	
Union Of India And Ors.	... Respondents

WITH
WRIT PETITION NO.2208 OF 2004

Maharashtra Manav Seva Sangh	... Petitioner
V/S	
The Tahasildar and Ors.	... Respondents

Mr. Navroz Seervai, Sr. Counsel a/w Jai Chhabria & Ms. Shreya Parikh & Ms. Gulnar Mistry i/b. M/s M.V. Jayakar And Co. for the Petitioner in PIL/87/2006.

Mr. Saket Mone a/w Mr.Subit Chakrabarti a/w Mr. Vishesh Kalra and Ms. Neha Joshi i/b Vidhi Partners for the Petitioner in WP/2741/2017 & the Applicant in NMW/145/2018.

Mr. Rajshekhar V. Govilkar for the Respondent No.3 in PIL/87/2006,
Ms. Sharmila Deshmukh for the Respondent No.5 in WP/2741/2017

Mr. S.S. Pakle a/w Ms. Pallavi Thakar for the Respondent - BMC.

Mr. Musharaf Shaikh i/b. Ms. Kiran Bagalia for the Respondent No.7.

Ms. Geeta Shastri, Addl. G. P for the Respondent - State in PIL/87/2006

Mr. Rui Rodrigues a/w Mr. Upendra Lokegaonkar and Mr.N.R. Prajapati for the Respondent -UOI in PIL/87/2006.

Mr. Abhishek Patil for the Applicant in CHSW/196/2007.

Ms. Uma Palsule-Desai, AGP for the Respondent-State in NMW/372/

2012 & NMW/344/2012.

Mr. S.B. Gore, AGP for the Respondent - State in WP/2741/2017.

Ms. Pooja Tated & Ms. Raksha Thakkar i/by ALMT Legal for Third Party No. 5.

Mr. M.S. Bharadwaj a/w Mr. A.M.Sethna for the Respondent No.5 in WP/2208/2004.

Mr. Abhijeet Rane for the Respondent No. 15 & 16, 18 & 19.

Mr. Amol Desai a/w Mr. Avinash K. Jalisatgi for the Respondent No.11.

Mr. G.S. Hegde i/b. M.V. Kini And Co. for the Applicant in NMWL/171/2018.

Mr. S.D. Shetty a/w Mr. Rakesh Singh i/b. M.V. Kini and Co. in NMW/555/2017 for the Applicant.

Mr.Kunal Chheda with N.R.Bubna in NMW/145/2018 for the Applicant.

Ms. Lata Desai a/w Ms. Pallavi Divekar and Mr. Salil Dabke i/b. Divekar and Co. in NMW/31/2018 for the Applicant.

CORAM : A.S. OKA AND RIYAZ I. CHAGLA, JJ.

DATE ON WHICH SUBMISSIONS WERE LASTLY HEARD : **02.08.2018**

DATE ON WHICH JUDGMENT IS PRONOUNCED : **17.09.2018**

JUDGMENT : (PER A.S. OKA, J.)

MANGROVES

1 This Public Interest Litigation (PIL) concerns the issue of destruction of mangroves in the entire State of Maharashtra. The word "Mangrove" is considered to be a combination of the Portuguese word "Mangue" and the English word "grove". Mangroves are salt-tolerant plants of tropical and subtropical intertidal regions of the world. The specific regions where these plants occur are termed as 'mangrove ecosystem'. These are highly productive but extremely sensitive and fragile. It is said about the mangroves that they are living life on the edge, with one foot on land and one in the sea. They survive in a harsh environment, adapting well to the scorching heat, deep mud and saltwater that would otherwise kill other plants. Yet they are tenacious and very useful for the environment. The occasion for filing the main

PIL is that the importance of very tenacious mangroves for the benefit of the mankind is ignored and mangroves are being destructed in the State on a very large scale.

FACTUAL ASPECTS AND PRAYERS IN PIL 87 OF 2006

2 The first petitioner is a society registered under the Societies' Registration Act, 1860. It is the case of the first petitioner that it is committed to protection and preservation of environment. It is pointed out that the State of Maharashtra has a coastline of 720 kilometers which is indented by numerous rivers, estuaries, creeks, small bays, rocky shores and muddy beaches. It is pointed out in the petition that there are 18 major estuaries along with coastline of Maharashtra harboring some of the biologically richest patches of mangroves along the entire western coast of India. It is stated that there are 52 creeks in the State along the coast which are covered by mangroves. The petitioners have relied upon a map annexed at Exhibit-A which is titled as "Mangroves Status 1997" which is said to be a satellite image of coast of Greater Mumbai in the year 1997. Basically, the petition is filed for inviting attention of the Court to the large scale destruction or denudation of mangroves. The petition seeks a declaration that the areas covered by mangroves in the State of Maharashtra in addition to those covered by mangroves forest should be declared as mangroves protection area.

3 In paragraph (i)4 of the petition, mangroves have been described. Paragraph (i)4 reads thus :-

“(i) What are 'mangroves'?

4. **Mangroves are intertidal (growing between the high tide and low tide line) evergreen forests growing on the soft marshy lands of a creek, estuary or a bay in the tropical and sub tropical regions. The expression**

'mangrove' does not apply to a single species of plants, but to a complete ecosystem which is a conglomeration of several species of flora, fauna and biotic features in an area, and their interaction with each other. Mangroves are a peculiar habitat because they are found on the boundary between the land and the sea. They are found almost entirely in the tropical and sub tropical regions, that is, between 30 degrees north and 30 degrees south latitude, and are an extension of the tropical rain forests towards the sea. They are found largely in the estuarine regions where a river meets the sea, the intertidal regions of shallow bays and creeks. As extensions of the tropical rain-forests in to the sea, mangroves are functionally as important as the tropical rain-forests. Moreover, they are additionally important for the protection of the seashores from erosion, wave action, high-winds and cyclones. Mangroves being intertidal forests are equal to tropical forests, however their importance is not merely in their forest value but due to their strategic location between the land and the sea. Mangroves are the life line of any coastal area and perform invaluable protective functions for the environment. The importance of mangroves is set out below:”
(emphasis added)

4 The petition sets out the functions and importance of mangroves which can be briefly summarized as under :-

- A] The mangroves play important role in protecting sea shores from erosion, high winds and cyclone;
- B] Mangroves are strategically located between the land and sea and therefore, their importance is not merely in their forest value. The mangroves act as a buffer between the land and sea and play a very important role in fighting tidal erosion. The presence of mangroves does away with the need for expensive sea walls. The loss of mangroves endangers the stability of the land;

- C] The mangroves facilitate reclamation of land from the sea;
- D] Sometimes mangroves act as flood control by absorbing excess water from the sea;
- E] Similarly, mangroves protect the land from storms and hurricanes;
- F] Apart from the fact that mangroves act as natural sewage water filter systems, the same act as natural pollution coastal checks. They absorb natural waste;
- G] The presence of mangroves on the fringes of the city like Mumbai which has one of the lowest open space ratios in the world ensures that some open spaces are kept open;
- H] The mangroves are breeding grounds for a number of marine organism, such as shrimps, crabs and fish. The presence of mangroves keeps the fish relatively free from industrial and other pollution; and
- I] The mangroves are also centres of biodiversity and are the most productive ecosystems. In Maharashtra, they house panthers, otters, jackals, wild cats, reptiles and birds of numerous varieties. It is pointed out that Thane creek is a home to about 1.5 million birds of 206 different species.

5 It is pointed out that Maharashtra has about 18 species of mangroves out of total 55 found in India. It is pointed out that out of 5 coastal districts Mumbai, Thane (now Thane and Palghar), Raigad, Ratnagiri and Sindhudurg, the mangroves in Thane district have undergone maximum destruction. It is pointed out that though comparatively there is no destruction of mangroves in District Sindhudurg, the said district is less favourable to the growth of

mangroves because of its geological condition. It is pointed out that in Mumbai also there has been a large destruction of mangroves. It is pointed out that city of Mumbai has been reclaimed from the sea by joining seven islands and it is consistently under pressure from surrounding sea. It is pointed out as to how mangroves in Mumbai have vanished. It is pointed out that in dumping grounds at Gorai and Deonar, water supply to mangroves has been blocked which resulted in destruction of mangroves. It is pointed out that rapid erosions have been noticed in the said area.

6 The prayers in prayer clause (a) of PIL are relevant which read thus:

- “(a) That this Hon'ble Court be pleased to pass a writ of mandamus or a writ in the nature of mandamus, or an other appropriate writ, order or direction directing the Respondents :
- (i) to declare the areas covered by mangrove forests in the area of Greater Mumbai as per the 1997 satellite plan annexed hereto as Exhibit 'A' as a specifically designated “mangrove protection area” with such modifications as this Hon'ble Court may deem fit.
 - (ii) to forthwith forbear from permitting any destruction or denudation of mangroves in the aforesaid mangrove protection area, inter alia, by dumping, obstructing water supply, cutting of mangroves or by any other method.
 - (iii) to forthwith remove all existing obstructions blocking water supply to mangroves in the mangrove protection area.
 - (iv) to forthwith remove all encroachments in the mangrove protection area as per the plan annexed as Exhibit 'A';
 - (v) to restore mangroves in the mangrove protection area in accordance with the aforesaid 1997 plan by re-plantation thereof;
 - (vi) to take steps for the preservation of the aforesaid mangrove protection area throughout, inter alia, the establishment of eco-tourism parks on the lines

mentioned more particularly in Paragraph 4(ii) of this petition.

- (vii) to earmark a special mangrove restoration fund for the preservation of the mangrove protection area.
- (viii) to carry out a monthly satellite study to monitor any change of land use within the mangrove area.
- (ix) to account for the application of funds received by the 1st Respondent from the 2nd Respondent's National Committee on Mangroves & Coral Reefs for the preservation of mangroves in Maharashtra.”

7 PIL refers to various statutory provisions. It also refers to Ramsar Convention which is an Inter-Governmental Treaty on Wetlands which requires the State to promote conservation of wetlands habitats in the territories.

DESTRUCTION OF MANGROVES

8 In paragraph 24 of the petition, it is pointed out that there is a systematic pattern adopted in destruction of mangroves. It is pointed out that the mangroves are either set on fire or cut down and the areas occupied by mangroves are cleared for settlements. The other method is by blocking water supply to mangroves by dumping debris and constructing embankments. If water supply to mangroves is blocked, it ensures that the mangroves do not survive. It is pointed out in the petition that though large number complaints are being made regarding the destruction of mangroves, none of the authorities have taken any cognizance of the complaints.

INTERIM ORDER OF 6TH OCTOBER 2005

9 On 6th October 2005, this Court passed a detailed order. Paragraphs 7 to 13 of the said order are relevant which read thus :

- “7. **The Maharashtra State using Satellite Remote Sensing is directed to prepare Phase-II of the**

mapping for carrying out mangroves study using high resolution satellite data of 65 cms. Spatial resolution/one meter spatial resolution for detailed mapping of mangroves with a view to identify more precisely mangrove areas. After receiving the satellite data, transfer of mangrove details on city survey/village maps (cadastral map) would be done. According to the learned Advocate General, this exercise is likely to take about six months. It has become imperative to pass interim order to protect the mangroves during the interregnum. We direct that this order shall not apply to all those cases which are specifically governed by injunction or stay order passed by the Courts of law before this date.

8. The State Government is directed to designate a Senior Officer not below the rank of concerned District Magistrate and Collector and Deputy Commissioner of Police/Superintendent of Police to oversee the implementation of the following directions. They would entertain complaints from citizens in respect of mangrove destruction. The name, address and contact information of such officers shall be advertised prominently in one English newspaper and two Marathi newspapers, apart from the official websites of the Maharashtra Government and the Forest Department.
 - (i) **That there shall be a total freeze on the destruction and cutting of mangroves in the entire State of Maharashtra.** We take note of the fact that in T.N. Godavarman Thirumulkpad vs. Union of India and Ors. etc. [Writ Petition (C)No. 202 of 1995 and 171 of 1996], an affidavit was filed on behalf of the State of Maharashtra by the Chief Conservator of Forests (Administration), in which on the basis of a report of an Expert Committee, it was stated that in the Mumbai Urban Area alone, 1,534 hectares of land were, inter alia, classified as mangrove areas;
 - (ii) **All construction and rubble/garbage dumping on the mangrove areas shall be stopped forthwith;**
 - (iii) **Regardless of ownership of the land, all construction taking place within 50 metres on all sides of all mangroves shall be forthwith stopped;**
 - (iv) **No development permission whatsoever shall be**

issued by any authority in the State of Maharashtra in respect of any area under mangroves;

- (v) The Municipal Commissioner of Greater Mumbai shall forthwith issue the necessary directions to the Municipal Corporation of Greater Mumbai Building Proposals Department not to entertain any applications for development (as defined in the Maharashtra Regional and Town Planning Act, 1966) on or in respect of the mangrove lands, regardless of the nature of ownership;
- (vi) The State Government and the Maharashtra Coastal Zone Management Authority (MCZMA) are directed to file monthly report on the above action plan to this Court. The first report will be submitted within four weeks from today. The report shall specifically state, in addition to the progress/action taken,
 - (a) the number of complaints received, if any,
 - (b) the action taken thereon, if any,
 - (c) the number of offenders named, and
 - (d) the details of prosecutions/ action launched/ taken against such offenders.
- (vii) The State of Maharashtra is directed to file in Court and furnish to the petitioners copies of the maps referred to in paragraph 10 of the affidavit dated 16th August, 2005, filed by Mr. Gajanand Varade, Director, Environment Department, State of Maharashtra (Page 346 on the record), within four weeks from today;
- (viii) The areas shown as mangrove area in the satellite study report "Mapping of mangroves in the Maharashtra State using Satellite Remote Sensing" dated August, 2005, prepared by the Maharashtra Remote Sensing Application Centre (MRSAC) for the MCZMA which was submitted to this Court on 29th August, 2005, form part of Phase I of the mapping by MRSAC. The MRSAC will, in Phase-II, carry out mangroves study using high resolution for detailed mapping of mangroves with a view to identify more precisely mangrove areas in Mumbai and Navi Mumbai. After receiving the said satellite data, transfer of mangrove details on city survey/village maps (cadastral map) will be carried out within a period of 6 months from today;
- (ix) **After the aforesaid process in clause (viii) is completed, the areas so identified which are government owned shall be declared and notified as**

“protected forests” in accordance with law after carrying out ground survey etc. The areas so identified that are privately owned shall be declared and notified as “forests” in accordance with law, after carrying out ground survey etc. The said declaration/notification will be completed within a period of 8 weeks of the completion of Phase-II mapping;

- (x) The mangrove areas that are on government owned lands will be handed over to the Forest Department within a period of 12 weeks from the declaration of the same as “protected forests”;
- (xi) From the list of “mangrove areas” so identified, Government owned lands will automatically be declared/notified as “protected forests”. Likewise, privately owned lands from the list of mangrove areas so identified, the same will be declared/notified as “forests”;
- (xii) The Secretary, Revenue Department, shall from the said date of taking over possession of the Government owned land by the Forest Department, update all the revenue records to ensure that the said Government lands are shown as “protected forests” in the said revenue records within a period of 12 weeks from the same being declared as “protected forests”. In the case of lands that are private owned, the secretary, Revenue Department, shall update all the revenue records to ensure that the said private lands are shown as “forests” in the said revenue records within a period of 12 weeks of completion of the steps in clause (x) above;
- (xiii) In respect of Government lands, the Forest Department and other authorities of the State of Maharashtra shall take the following necessary steps of protection, conservation and regeneration of the areas that would be declared/notified as “protected forests: in terms of clause (x) above;
 - (a) Removal of all obstructions that are impeding the growth of mangroves as also the impediments which restrict the flow of sea water in the mangrove areas;
 - (b) Wherever mangrove growth is found to be sparse and denuded (i.e. with forest density less than 0.4 which means canopy less than

- 40%) within these identified areas, taking necessary steps for rejuvenation;
- (c) On identification of the areas as forest, the Municipal Corporation of Greater Mumbai would remove garbage and debris within these areas within a period of three months as per the instructions of the Forest Department. These areas shall be rejuvenated with mangroves;
- (d) The Forest Department is directed to take necessary action against the offenders in accordance with law for damaging or destroying mangroves.
9. The Officers so designated in paragraph 8 above shall submit a report on the above action plan every three months to this Court. The first of such reports shall be submitted within four weeks from the date of declaration/notification as “protected forest”. In addition to the progress/action taken, the reports shall specifically state the action taken as regards (a) number of complaints received, if any, (b) the action taken thereon, if any, (c) the number of offenders named, and (d) the details of the prosecutions/action launched/taken against such offenders.
10. The State Government shall provide the necessary staff and funds for implementing the aforesaid directions to all concerned departments of the State.
11. The Principal Secretaries of (i) Environment, (ii) Revenue and (iii) Forest Departments, Government of Maharashtra, shall be overall in-charge of ensuring total compliance of this order.
12. This order shall partly modify the order dated 9th June, 2004 of this Court passed in Writ Petition No. 2208 of 2004.
13. The Chief Secretary of the State of Maharashtra is directed to send a circular to all concerned Collectors/Deputy Commissioners of Police/Superintendents of Police and all other concerned officials to ensure meticulous compliance of this order.”

**THE STATUS OF COMPLIANCE WITH THE INTERIM
DIRECTIONS IN THE ORDER DATED 6TH OCTOBER 2005**

10 For reporting compliance with the said directions, the State Government has filed an affidavit of Shri Milind Panditrao, Divisional Forest Officer, Mumbai Mangrove Conservation Unit. The said affidavit records that by a circular dated 21st October 2005, the State Government issued various directions in terms of the orders dated 6th October 2005. Under the said circular, the Divisional Commissioner, Konkan Division was appointed as the officer responsible to oversee the implementation of the aforesaid directions issued by this Court. It is pointed out that from the year 2005, the Divisional Commissioner has submitted 147 monthly “Action Taken Reports” to this Court. It is pointed out that 695 complaints were received by the Divisional Commissioner for various violations out of which 575 have been disposed of and 120 are pending. It is pointed out that the Maharashtra Remote Sensing and Satellite Application Centre (for short “MRSAC”) carried out the mapping of mangroves areas of Mumbai and Navi Mumbai. Based on this exercise, 5469 Hectares of mangroves on Government land in Mumbai were notified as forests and the said notified forest areas have been handed over to the Forest Department. It is stated that similar exercise of mapping of mangroves in the remaining coastal areas of Maharashtra was carried out by MRSAC. It is stated that in 7 coastal districts (Mumbai, Mumbai Suburban, Thane, Palghar, Ratnagiri, Sindhudurg and Raigad), 15,087.57 Hectares of mangroves on Government lands have been notified as “Reserved Forests” under Section 4 of the Indian Forest Act, 1927 (for short “the said Act of 1927”). Out of this area, total area of 12,263.72 Hectares constituting approximately 81.28% of the total area declared as a Reserved Forest

has been transferred to the Forest Department. It is stated that in case of Thane and Mumbai Districts, the said percentage is 100% and in case of Mumbai Suburban and Ratnagiri Districts, it is more than 99%. It is pointed out that mangroves area of 1775 Hectares on private lands in Mumbai Suburban District has been declared as a “forest”. In the said affidavit, certain difficulties have been expressed about the implementation of the direction of this Court to notify mangroves on private land as forests. We are dealing with the said issue in detail in the subsequent part of the judgment. It is submitted that the mangroves, irrespective of their ownership, receive protection under the Environment Protection Act, 1986 (for short “the said Act of 1986”) and the Forest (Conservation) Act, 1980 (for short “the said Act of 1980”). Therefore, it was submitted that the failure to declare private lands as private forests within the meaning of the Maharashtra Private Forest (Acquisition) Act, 1975 (for short “the Private Forest Act”) has not led to any adverse consequences.

11 Apart from the aforesaid statements made regarding the compliance with the directions issued under the order dated 6th October 2005, in the said affidavit, the following relevant steps taken by the State Government have been highlighted :-

- 1) So far approximately 541 Hectares of degraded mangrove areas have been brought under plantation;
- 2) On 5th January 2012, a dedicated unit called the “Mangrove Cell” was established for the protection and conservation of mangroves in Maharashtra. The officer of the rank of the Chief Conservator of Forests is heading the Mangrove Cell. From April 2017, this post has been upgraded to the level of the Additional Principal Chief Conservator of Forests;
- 3) For protection of mangroves in Mumbai and adjacent urban areas, the State Government has created Mumbai Mangrove Conservation Unit (MMCU) on 17th May 2013 which is headed by a Divisional Forest Officer who is

- assisted by several employees of the Forest Department. Six patrolling vehicles and two patrolling boats have been provided to MMCU. It is stated that 91 personnel from Maharashtra Security Corporation have been deployed in 3 shifts round the clock in various vulnerable mangroves areas in Mumbai;
- 4) Over 3800 illegal structures constructed on mangroves land in different parts of Mumbai have been removed and offences have been registered;
 - 5) Action has been taken against the vehicles involved in dumping of debris in mangrove areas. It is stated that District Collectors have lodged FIRs in respect of mangrove areas on non-forest land under the provisions of the said Act of 1986;
 - 6) An area of 1690 Hectares having a rich cover of mangroves on the western bank of Thane Creek has been notified as Thane Creek Flamingo Sanctuary under Section 18 of the Wildlife Protection Act, 1972 with effect from 6th August 2015;
 - 7) On 20th September 2017, the State Government has initiated a new scheme of Mangrove Conservation and Livelihood Generation in all coastal districts of Maharashtra;
 - 8) It is claimed that in a report published by Forest Survey of India in the year 2015, it is stated that the mangrove cover in Maharashtra up to 2013 was having an area of 186 sq. km which jumped to 222 sq. km by 2015. District wise break-up of the growth of mangrove cover between 2013 and 2015 has been set out in the affidavit.

12 By the said affidavit, the State Government has sought time of six months for completing the transfer of remaining notified Reserved Forest land admeasuring about 2823.84 Hectares (of Government land) to the Forest Department.

13 There are other affidavits placed on record from time to time. There are large number of orders passed on Notices of Motion taken out granting permission for carrying out the work on mangroves

land. There is a detailed additional affidavit filed to the Notice of Motion (L) No.303 of 2015 on behalf of the petitioners by Shri Debi Goenka.

SUBMISSIONS

14 The learned senior counsel appearing for the petitioners has taken us through the averments made in the petition, the affidavits on record as well as other material on record. He has taken us through a chart containing the details of the extent of the implementation so far made with the directions contained in the order dated 6th October 2005. As regards the direction to transfer mangroves areas to the Forest Department, it is pointed out that the City and Industrial Development Corporation of Maharashtra Limited (for short “CIDCO”) and the Mumbai Metropolitan Region Development Authority (for short “MMRDA”) have not transferred mangroves land in their possession to the Forest Department. He also pointed out various aspects set out in the action taken reports. He pointed out that due to the failure in taking immediate action in respect of the destruction of mangroves, violators have not been identified and First Information Reports (for short “FIRs”) have been filed against unknown persons. He also pointed out from the action taken reports that there is a frequent and rampant destruction of mangroves and dumping of garbage as well as debris in the mangroves area. He has relied upon statements made in various affidavits on record.

15 He further submitted that the FIRs are not taken to its logical end as the procedure under Section 19 of the said Act of 1986 is not being followed in most of the cases. He pointed out that as per the direction issued in clause 8(vi), MCZMA has not submitted any report. He stated that copies of the maps referred in the affidavit dated 16th

August 2005 of Shri Gajanan Varade have not be supplied to the petitioners. He pointed out that there is no compliance with the direction contained in clause (xiii).

16 The learned senior counsel submitted that a direction should be issued to hand over all Reserved forests to the Forest Department within a time bound schedule. He submitted that remaining action of notifying mangroves areas as forests should be also completed in a time bound schedule. He submitted that there are certain mangrove areas which are vulnerable to encroachment. Such areas must be protected by constructing a fencing/ boundary wall at a distance of 50 meters of the mangroves on its landward side. He invited our attention to wetland maps of Maharashtra prepared by MRSAC which are very useful for detection of destruction of mangroves. He pointed out several violations of the directions issued by this Court on 6th October 2005. He submitted that penal provisions under the said Act of 1986 have been rarely invoked. He also addressed the Court on the need for restoration and re-forestation. He submitted that there is a need to show mangroves areas in all Development Plans and Regional Plans along with 50 buffer zones. He made various suggestions as regards the working of the mangroves cell. He invited our attention to CRZ notifications as well as order of the Central Government approving the Coastal Zone Management Plan of Maharashtra (for short "CZMP"). The learned counsel appearing for the petitioner has also addressed us on the contents of the affidavit of Shri Milind Panditrao.

17 He invited our attention to the Judgment and Order dated 29th July 2015 in Chamber Summons No.172 of 2007 and other connected Notices of Motion. His basic submission is that the said Judgment and order does not lay down any proposition of law and

considering the peculiar facts of the case, certain plots in the layout in respect of which environmental clearance was granted in the years 2003 to 2005 were exempted from the operation of 50 meters buffer zone requirement. He urged that while approving CZMP, a condition was imposed by the Central Government of keeping 50 meter buffer zone and therefore, the said condition was in existence from the year 1996. He submitted that it is not correct to say that the requirement of having 50 meter buffer zone was brought into picture for the first time by the interim order dated 6th October 2005. He also pointed out as to how the condition of maintaining the buffer zone was in existence even prior to the order dated 6th October 2005.

18 The learned senior counsel appearing for the petitioner also addressed us on implementation of the directions contained in clause (ix) regarding declaring privately owned lands having mangroves as forests in accordance with law. He also invited our attention to the issue of implementation of the directions contained in last part of clause (xi) as well as last part of clause (xii). Firstly, he invited our attention to the decision of the Apex Court in the case of *T.N. Godavarman Thirumulkpad vs Union Of India & Ors.*¹. He submitted that the Apex Court has given purposive interpretation to the said Act of 1980 by holding that any forest irrespective of its ownership or its classification is entitled to protection of the provisions of the said Act of 1980. He pointed out that the Apex Court while recording the said finding has held that the word “forest” must be understood according to its dictionary meaning and the term “forest land” occurring in Section 2 of the said Act of 1980 will not only include the word “forest land” in dictionary sense but also any area recorded as a forest in the

¹ (1997) 2 SCC 267

Government record. He urged that considering the dictionary meaning of “forest” it will cover lands with mangroves and therefore, effect will have to be given to the the directions issued by the Apex Court in the case of *T.N. Godavarman Thirumulkpad vs. Union Of India & Ors.* in case of privately owned lands having mangroves. He submitted that on such lands, non-forest activity is completely prohibited without seeking permission of the requisite authorities.

19 Thereafter, he invited our attention to the provisions of the Private forest Act and definition of “forest” in clause (c-i) of Section 2 of the Private Forest Act. He pointed out that the said definition is an inclusive definition. Inviting our attention to the definition of “private forest” in clause (f) of Section 2, he urged that even the said definition is inclusive which includes any forest which is not the property of the State Government. He would, therefore, submit that private lands having mangroves will be a private forest within the meaning of the Private Forest Act. He would, therefore, submit that by virtue of subsection (1) of section 3 of the Private Forest Act, all such lands will vest in the State of Maharashtra irrespective of any other provisions of law.

20 He also made submissions on the basis of the Wetlands (Conservation and Management) Rules, 2017 and definition of wetlands. He urged that in addition to the interim orders issued which are already in force, directions as contended by him may be issued apart from issuing direction regarding setting criminal law in motion against the offenders.

21 The learned Additional Government Pleader Ms. Geeta Shastri has taken us through the affidavit of Shri Milind Panditrao,

Divisional Forest Officer, Mumbai Mangrove Conservation Unit and submitted that almost all interim directions have been complied with in substance. As regards the direction sought by the learned senior counsel appearing for the petitioner as regards the mangroves on private forests, she submitted that recourse will have to be taken to Section 21 of the Private Forests Act which will involve acquisition of privately owned properties having mangroves. She pointed out that Sections 34 to 37 of the Forest Act which provide for Control and Management of Forest Lands not being property of the Government have been repealed for the State of Maharashtra on coming into force of the Private Forest Act. She submitted that except the said direction, the State Government has shown willingness to implement all the other directions. We have also heard the various learned counsel representing various respondents including MCZMA as well as the learned counsel appearing for the parties in the connected petitions. Though we are disposing of Writ Petition 2741 of 2017 by a separate order, we have heard the learned counsel appearing in the said petition on certain issues especially relating to the buffer zone. The learned counsel appearing for the Petitioners in Writ Petition 2741 of 2017 made submissions in support of the order dated 29th July 2015 in Chamber Summons No. 172 of 2007. He pointed out that the said order finally concludes the issue of 50 meter buffer zone. He pointed out that the said order has been confirmed by the Apex Court by order dated 20th January 2016. He pointed out the circular issued by the State Government on the basis of the order dated 29th July 2015.

CONSIDERATION OF SUBMISSIONS

22 We have given careful consideration to the submissions. We have perused the affidavits and compilation of documents on record.

THE INDIAN FOREST ACT , 1927

23 Firstly, the legal position will have to be dealt with. Section 3 of the said Act of 1927 reads thus :-

“3. **Power to reserve forests.** - The State Government may constitute any forest-land or waste-land which is the property of Government, or over which the Government has proprietary rights, or to the whole or any part of the forest-produce of which the Government is entitled, a reserved forest in the manner hereinafter provided.”

24 The word forest has not been defined under the said Act of 1927. In the case of *Laxman Ichharam Vs. Divisional Forest*², a Division Bench of the erstwhile Nagpur High Court held that the word forest has been used in its widest significance. The Division Bench observed in paragraph 13 :-

“13. The term ‘forest’ has not been defined anywhere in the Forest Act. **In the absence of such a definition the word ‘forest’ must be taken in its ordinary dictionary sense.** The *Shorter Oxford English Dictionary*, Vol. I, gives the following meaning to it:

- ‘1. **An extensive tract of land covered with trees and undergrowth, sometimes intermingled with pasture**
2. Law. A woodland district, usually belonging to the king, set apart for hunting wild beasts and game etc.,.....
3. A wild uncultivated waste.”

(emphasis added)

25. The definition of a tree in sub-section (7) of Section 2 is inclusive. Therefore, a land covered by mangroves will be a forest land within the meaning of Section 3 of the said Act of 1927. Section 3 confers a power on the State Government to declare a forest land which is the property of the Government as a Reserved forest. Section 4

² AIR 1953 Nag 51

contemplates a notification to be issued to constitute any land as a Reserved forest. Before issuing the notification, the procedure prescribed by chapter II of the said Act of 1927 is required to be followed. Section 23 provides that no right of any description shall be acquired in or over a Reserved forest except by succession or under a grant or contract in writing made by or on behalf of the Government or some person in whom such right was vested when the notification under section 20 was issued. Section 20 contemplates a publication of a notification declaring a forest to be a Reserved forest from the date fixed by the notification. Section 26 of the said Act 1927 imposes several prohibitions in case of a Reserved forest.

26 Sections 29 and 30 of the said Act of 1927 read thus:

“29. Protected forests. - (1) The State Government may, by notification in the Official Gazette, declare the provisions of this Chapter applicable to any forest-land or waste-land which,, is not included in a reserved forest but which is the property of Government, or over which the Government has proprietary rights, or to the whole or any part of the forest produce of which the Government is entitled.

(2) The forest-land and waste-lands comprised in any such notification shall be called a "protected forest".

(3) No such notification shall be made unless the nature and extent of the rights of Government and of private persons in or over the forest-land or waste-land comprised therein have been inquired into and recorded at a survey or settlement, or in such other manner as the State Government thinks sufficient. Every such record shall be presumed to be correct until the contrary is proved:

 Provided that, if, in the case of any forest-land or waste land, the State Government thinks that such inquiry and record are necessary, but that they will occupy such length of time as in the meantime to endanger the rights of Government, the State Government may, pending such inquiry

and record, declare such land to be a protected forest, but so as not to abridge or affect any existing rights of individuals or communities.

- 30. Power to issue notification reserving trees, etc.** - The State Government may, by notification in the Official Gazette,
- (a) declare any trees or class of trees in a protected forest to be reserved from a date fixed by, the notification;
 - (b) declare that any portion of such forest specified in the notification shall be closed for such term, not exceeding thirty years, as the State Government thinks fit, and that the rights of private persons, if any, over such portion shall be suspended during such terms, provided that the remainder of such forest be sufficient, and in a locality reasonably convenient, for the due exercise of the right suspended in the portion so closed; or
 - (c) prohibit, from a date fixed as aforesaid, the quarrying of stone, or the burning of lime or charcoal, or the collection or subjection to any manufacturing process, or removal of, any forest-produce in any such forest, and the breaking up or clearing for cultivation, for building, for herding cattle or for any other purpose, of any land in any such forest.”

27 The direction in clause 8(ix) of the order dated 8th October 2005 is to declare identified mangrove areas as “protected forest” within the meaning of section 29 of the said Act of 1927. The said direction has been accepted by the State Government. However, in a given case, the State Government can always declare a mangroves area as a reserved forest.

THE CONCEPT OF “FOREST” UNDER THE FOREST (CONSERVATION) ACT , 1980

28 The said Act of 1980 is also very material and in particular Section 2 thereof which reads thus :-

“2. Restriction on the dereservation of forests or use of forest land for non-forest purpose. -

Notwithstanding anything contained in any other law for the time being in force in a State, **no State Government or other authority shall make, except with the prior approval of the Central Government, any order directing, -**

- (i) that any reserved forest (within the meaning of the expression “reserved forest” in any law for the time being in force in that State) or any portion thereof, shall cease to be reserved;
- (ii) **that any forest land or any portion thereof may be used for any non-forest purpose;**
- (iii) that any forest land or any portion thereof may be assigned by way of lease or otherwise to any private person or to any authority, corporation, agency or any other organisation not owned, managed or controlled by Government;
- (iv) **that any forest land or any portion thereof may be cleared of trees which have grown naturally in that land or portion, for the purpose of using it for re-forestation.**

[Explanation. - For the purposes of this section “non-forest purpose” means the breaking up or clearing of any forest land or portion thereof for -

- (a) the cultivation of tea, coffee, spices, rubber, palms, oil-bearing plants, horticulture crops or medicinal plants;
- (b) any purpose other than re-afforestation,

but does not include any work relating or ancillary to conservation, development and management of forests and wild-life, namely, the establishment of check-posts, fire lines, wireless communications and construction of fencing, bridges and culverts, dams, waterholes, trench marks, boundary marks, pipelines or other like purposes.”

(emphasis added)

29 Section 2 thereof imposes a complete ban on the State Government or any other authority except with the prior approval of the

Central Government making any order for the use of any forest land or any portion thereof for non-forest purposes. Similarly, the State Government or any other authority cannot pass any order except with the approval of the Central Government permitting any forest land or any portion thereof to be cleared of all trees which have been grown naturally in that land or any portion for the purpose of using it for re-forestation. The concept of forest in the said Act of 1980 is of a widest amplitude.

CONCEPT OF FOREST: THE DECISION IN THE CASE OF T.N. GODAVARMAN

30 In the decision in the case of *T.N. Godavarman* (supra), paragraph 4 dealt with the concept of forest under the said Act of 1980. Paragraph 4 of the said decision reads thus :-

“4. The Forest Conservation Act, 1980 was enacted with a view to check further deforestation which ultimately results in ecological imbalance; and therefore, the provisions made therein for the conservation of forests and for matters connected therewith, must apply to all forests irrespective of the nature of ownership or classification thereof. The word “forest” must be understood according to its dictionary meaning. This description covers all statutorily recognised forests, whether designated as reserved, protected or otherwise for the purpose of Section 2(i) of the Forest Conservation Act. The term “forest land”, occurring in Section 2, will not only include “forest” as understood in the dictionary sense, but also any area recorded as forest in the Government record irrespective of the ownership. This is how it has to be understood for the purpose of Section 2 of the Act. The provisions enacted in the Forest Conservation Act, 1980 for the conservation of forests and the matters connected therewith must apply clearly to all forests so understood irrespective of the ownership or classification thereof. This aspect has been made abundantly clear in the decisions of this

Court in *Ambica Quarry Works v. State of Gujarat* [(1987) 1 SCC 213], *Rural Litigation and Entitlement Kendra v. State of U.P.* [1989 Supp (1) SCC 504] and recently in the order dated 29-11-1996 (*Supreme Court Monitoring Committee v. Mussoorie Dehradun Development Authority* [WP (C) No 749 of 1995 decided on 29-11-1996]). The earlier decision of this Court in *State of Bihar v. Banshi Ram Modi* [(1985)3 SCC 643] has, therefore, to be understood in the light of these subsequent decisions. We consider it necessary to reiterate this settled position emerging from the decisions of this Court to dispel the doubt, if any, in the perception of any State Government or authority. This has become necessary also because of the stand taken on behalf of the State of Rajasthan, even at this late stage, relating to permissions granted for mining in such area which is clearly contrary to the decisions of this Court. It is reasonable to assume that any State Government which has failed to appreciate the correct position in law so far, will forthwith correct its stance and take the necessary remedial measures without any further delay.”
(emphasis added)

31 Various directions were issued under the said judgment and order. Paragraph 5 of the said decision reads thus :-

“5. We further direct as under:-

I. General

1. **In view of the meaning of the word “forest” in the Act, it is obvious that prior approval of the Central Government is required for any non-forest activity within the area of any “forest”. In accordance with Section 2 of the Act, all on-going activity within any forest in any State throughout the country, without the prior approval of the Central Government, must cease forthwith.** It is, therefore, clear that the running of saw mills of any kind including veneer or plywood mills, and mining of any mineral are non-forest purposes and are, therefore, not permissible without prior approval of the Central Government. Accordingly, any such activity is prima facie violation of the provisions of the Forest Conservation Act, 1980. Every State Government must

promptly ensure total cessation of all such activities forthwith.

2. In addition to the above, in the tropical wet evergreen forests of Tirap and Changlang in the State of Arunachal Pradesh, there would be a complete ban on felling of any kind of trees therein because of their particular significance to maintain ecological balance needed to preserve bio-diversity. All saw mills, veneer mills and plywood mills in Tirap and Changlang in Arunachal Pradesh and within a distance of 100 kms from its border, in Assam, should also be closed immediately. The State Governments of Arunachal Pradesh and Assam must ensure compliance of this direction.
3. The felling of trees in all forests is to remain suspended except in accordance with the working plans of the State Governments, as approved by the Central Government. In the absence of any working plan in any particular State, such as Arunachal Pradesh, where the permit system exists, the felling under the permits can be done only by the Forest Department of the State Government or the State Forest Corporation.
4. There shall be a complete ban on the movement of cut trees and timber from any of the seven North-Eastern States to any other State of the country either by rail, road or waterways. The Indian Railways and the State Governments are directed to take all measures necessary to ensure strict compliance of this direction. This ban will not apply to the movement of certified timber required for defence or other Government purposes. This ban will also not affect felling in any private plantation comprising of trees planted in any area which is not a forest.
5. **Each State Government should constitute within one month an Expert Committee to:**
 - (i) **Identify areas which are “forests”, irrespective of whether they are so notified, recognised or classified under any law, and irrespective of the ownership of the land of such forest;**
 - (ii) identify areas which were earlier forests but stand degraded, denuded or cleared; and

- (iii) identify areas covered by plantation trees belonging to the Government and those belonging to private persons.
6. Each State Government should within two months, file a report regarding:
 - (i) the number of saw mills, veneer and plywood mills actually operating within the State, with particulars of their real ownership;
 - (ii) the licensed and actual capacity of these mills for stock and sawing;
 - (iii) their proximity to the nearest forest;
 - (iv) their source of timber.
 7. Each State Government should constitute within one month, an Expert Committee to assess:
 - (i) the sustainable capacity of the forests of the State qua saw mills and timber-based industry;
 - (ii) the number of existing saw mills which can safely be sustained in the State;
 - (iii) the optimum distance from the forest, qua that State, at which the saw mill should be located.
 8. The Expert Committee so constituted should be requested to give its report within one month of being constituted.
 9. Each State Government would constitute a Committee comprising of the Principal Chief Conservator of Forests and another Senior Officer to oversee the compliance of this order and file status reports.”
(emphasis added)

32 If a reference is made to Cambridge dictionary, the meaning of forest therein is “a large area of land covered with trees and plants usually larger than the wood or trees and plants themselves”. Considering the wide meaning given to “forest” by the Apex Court, a land covered by mangroves irrespective of its ownership is a forest within the meaning of the said Act of 1980. Hence, the embargo imposed by Section 2 of the said Act of 1980 and the directions issued

by the Apex Court will apply with all the force to mangroves areas. It will apply to mangrove areas irrespective of the fact that the lands are privately owned. That is very clear from paragraph 5(i) above. Therefore, it is obvious that prior approval of the Central Government is required for doing any non-forest activity within the area of mangroves. In accordance with Section 2 of the Act, all ongoing non- forest activity within any mangroves area without the prior approval of the Central Government, must cease forthwith.

THE ENVIRONMENT (PROTECTION) ACT , 1986

33 Another important statute with which we are concerned is the said Act of 1986. Clause (a) of sub-section (2) of the said Act of 1986 defines “environment” which reads thus :-

“(a) “environment” includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property;”

Hence, the definition of environment is very wide which includes not only water, air and land but also plants and micro-organism. Thus, it will include mangroves as well.

34 Section 3(1) of the said Act of 1986 reads thus:

“3. POWER OF CENTRAL GOVERNMENT TO TAKE MEASURES TO PROTECT AND IMPROVE ENVIRONMENT

(1) Subject to the provisions of this Act, the Central Government, shall have the power to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing controlling and abating environmental pollution.”

(emphasis added)

CRZ NOTIFICATION OF 1991

35 A notification dated 19th February 1991 was issued by the Government of India which is known as CRZ notification of 1991 in exercise of powers under Section 3(1) and Section 3(2)(v) of the said Act of 1986. The notification lays down what constitutes a “Coastal Regulation Zone” (for short “CRZ”). The material part of the said CRZ notification declaring CRZ reads thus :-

“Now, therefore, in exercise of the powers conferred by Clause (d) of sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986, and all other powers vesting in its behalf, the Central Government hereby declares the coastal stretches of seas, bays, estuaries, creeks, rivers and backwaters which are influenced by tidal action (in the landward side) upto 500 metres from the High Tide Line (HTL) and the land between the Low Tide Line (LTL) and the HTL as Coastal Regulation Zone; and imposes with effect from the date of this Notification, the following restrictions on the setting up and expansion of industries, operations or processes etc. in the said Coastal Regulation zone (CRZ). For purposes of this Notification, the High Tide Line (HTL) will be defined as the line upto which the highest high tide reaches at spring tides.”

36 Clause 3 provides that all other activities except those which are prohibited will be regulated as provided therein. Annexure-I to the CRZ notification deals with Coastal Area Classification and Development Regulations. CRZ-I is defined thus :-

“Category I (CRZ-I) :

- (i) Areas that are ecologically sensitive and important, such as national parks marine parks, sanctuaries, reserve forests, wildlife habitats, **mangroves**, corals coral reefs, areas close to breeding and spawning grounds of fish and other marine life, areas of outstanding natural beauty historical heritage areas, areas rich in genetic diversity, areas likely to be inundated due to rise in sea level consequent upon global warming and such other areas as may be declared by the Central Government or the

concerned authorities at the State/ Union Territory level from time to time.

- (ii) Area between the Low Tide Line and the High Tide Line.”

(emphasis added)

37 Thus, mangroves fall in CRZ-I category. Annexure-I further lays down that no new structure shall be permitted within 500 meters from the High Tide Line (HTL) and no construction activities except as listed in sub-clause (xii) of clause 2 of the CRZ notification are permitted in CRZ-I area. Sub-clause (xii) of clause 2 reads thus :-

“(xii) facilities for carrying treated effluents and waste water discharges into the sea, facilities for carrying sea water for cooling purposes, oil, gas and similar pipelines and facilities essential for activities permitted under this Notification; and”

38 The CRZ notification of 1991 was further amended by a notification dated 18th August 1994. The relevant modification is in clause (a) which reads thus :

“(a) in paragraph 1, for the portion beginning with the words “For purposes of this notification, the High Tide Line” and ending with the words “width of the creek, river or back water whichever is less”, the following shall be submitted, namely :-

“For the purposes of this notification, the High Tide Line means the line on the land upto which the highest water line reaches during the spring tide and shall be demarcated uniformly in all parts of the country by the demarcating authority so authorised by the Central Government in consultation with the Surveyor General of India.

NOTE :-

The distance from the High Tide Line shall apply to both sides in the case of rivers, creeks and back waters and may be modified on a case by case basis for reasons to be recorded while preparing the Coastal Zone Management Plans. However, this distance shall not be less than 50 metres or the width of the creek, river or back-water whichever is less. The distance upto which development along rivers, creeks and back-waters is to be regulated shall be governed by the distance upto which the tidal effect of sea is experienced in rivers, creeks or back-waters, as the case may be, and should be clearly identified in the Coastal Zone Management Plans.”

39 Sub-clause (3)(i) of clause 3 of the CRZ notification of 1991 mandated that all coastal States shall prepare a Coastal Zone Management Plan (for short “CZMP”) identifying and classifying CRZ areas within their respective territories in accordance with Annexures - I and II to the CRZ notification. Accordingly, CZMP for Maharashtra was submitted to the Government of India on 22nd November 1995. By a letter/ order dated 27th September 1996, the Ministry of Environment and Forest of the Government of India communicated to the Chief Secretary of the Government of Maharashtra grant of approval to the CZMP subject to conditions incorporated therein. Condition No.(xiii) reads thus :-

“(xiii) All mangroves with an area of 1000 square metres or more would be classified as CRZ-I with a buffer zone of at least 50 metres.”

The Mangroves were already included in CRZ-I in the CRZ notification of 19th February 1991. By the aforesaid order dated 27th September 1996, in case of mangroves with an area of 1000 square metres or more, a buffer zone of at least 50 metres along the mangroves was ordered to be included in CRZ-I in addition to mangroves.

40 An order was issued on 19th January 2000 by the Government of India providing that 50 meter buffer zone around mangroves of area of 1000 square meters and above, will not be required on the landward side, provided a road abutting such mangroves was constructed prior to February, 1991. Thus, under the 1991 notification, mangroves were included in CRZ-I. In the CRZ notification of 1991, there was no provision for a buffer zone. The said provision came for the first time by virtue of the order dated 27th September 1996 which was amended by the order dated 9th January 2000.

CRZ NOTIFICATION OF 2011

41 The CRZ notification of 6th January 2011 was issued under section 3(1) of the said Act of 1986 which superseded the earlier CRZ notification of 1991. Relevant part of paragraph 7 reads thus:

“7. Classification of the CRZ – For the purpose of conserving and protecting the coastal areas and marine waters, the CRZ area shall be classified as follows, namely:-

(i) CRZ-I,-

- A. The areas that are ecologically sensitive and the geomorphological features which play a role in the maintaining the integrity of the coast,-
- (a) **Mangroves, in case mangrove area is more than 1000 sq mts, a buffer of 50 meters along the mangroves shall be provided;**
 - (b) Corals and coral reefs and associated biodiversity;
 - (c) Sand Dunes;
 - (d) Mudflats which are biologically active;
 - (e) National parks, marine parks, sanctuaries.....”
- (emphasis added)

Clause (xi) of paragraph 3 provides that all construction activities in CRZ-I are prohibited activities except those specified in paragraph 8. Paragraph 8 lays down the norms for regulation of the activities permissible in CRZ that:

“I. CRZ-I,-

- (i) no new construction shall be permitted in CRZ-I except,-
 - (a) projects relating to Department of Atomic Energy;
 - (b) pipelines, conveying systems including transmission lines;
 - (c) facilities that are essential for activities permissible under CRZ-I;
 - (d) installation of weather radar for monitoring of cyclones movement and prediction by Indian Meteorological Department;
 - (e) construction of trans harbour sea link and without affecting the tidal flow of water, between LTL and HTL.
 - (f) development of green field airport already approved at only Navi Mumbai;
- (ii) Areas between LTL and HTL which are not ecologically sensitive, necessary safety measures will be incorporated while permitting the following, namely:-
 - (a) exploration and extraction of natural gas;
 - (b) construction of dispensaries, schools, public rain-shelter, community toilets, bridges, roads, jetties, water supply, drainage, sewerage which are required for traditional inhabitants living within the biosphere reserves after obtaining approval from concerned CZMA.
 - (c) necessary safety measure shall be incorporated while permitting such developmental activities in the area falling in the hazard zone;
 - (d) salt harvesting by solar evaporation of seawater;
 - (e) desalination plants;
 - (f) storage of non-hazardous cargo such as edible oil, fertilizers and food grain within notified ports;
 - (g) construction of trans harbour sea links, roads on stilts or pillars without affecting the tidal flow of water.”

In the Guidelines for preparation for CZMP incorporated in the said notification of 2011, it is stated thus:

- “3. Buffer zone along mangrove areas of more than 1000 sq mts shall be stipulated with a different colour distinguishing from the mangrove area.
4. The buffer zone shall also be classified as CRZ-I area.”

42 In 1991 CRZ notification, it was provided that all mangrove areas will fall in CRZ-I. By virtue of the order dated 27th September 1996, in case of mangrove areas of 1000 square meters or more, 50 meter buffer zone abutting it was also included in CRZ-I. By order dated 9th January 2000, it was provided that 50 meter buffer zone will not be required to be maintained, provided a road abutting the mangroves was constructed prior to February 1991 (prior to the date on which CRZ notification of 1991 was issued). Under the 2011 notification, all mangroves area fall in CRZ-I irrespective of its area and in case the said area is 1000 square meters or more, even a buffer zone of 50 meters along the said area shall be a part of CRZ-I. Thus, the buffer zone of 50 meters abutting mangroves having an area of 1000 square meters or more was also included in CRZ-I from 27th September 1996.

43 The CRZ notifications are in the nature of orders or directions issued under the said Act of 1986. Hence, if there is any violation of the provisions of the CRZ notifications regarding mangroves area or its buffer zone or if there is any failure to comply with the same , it will attract the penal provisions under Section 15 of the said Act of 1986 which is attracted in case of the failure to comply with the provisions of orders or directions issued under the said Act of 1986. The conditions imposed in the the letter dated 27th September 1996 will have to be construed as an order or direction under the said Act of 1986 as CZMP is required to be approved by the Central government in

view of the clause 3(i) in the CRZ notification of 1991. Hence, if there is any violation of the condition in the letter dated 27th September 1996 about the 50 meter buffer zone, it will attract penal provision of Section 15 of the said Act of 1986.”

**EFFECT OF THE DIRECTIVE PRINCIPLES OF STATE
POLICY AND THE FUNDAMENTAL DUTIES OF CITIZENS**

44 Article 48-A in Chapter IV under the title Directive Principles of State Policy of the Constitution of India reads thus :-

“48-A. Protection and improvement of environment and safeguarding of forests and wild life.—**The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country.**”

(emphasis added)

45 Article 48-A lays down that it is the duty of the State to make an endeavour to protect and improve environment and to safeguard forests. As stated earlier, environment includes plants. Mangroves are essential part of the environment. The land covered by mangroves is be covered by the concept of forest. Under Article 51(A) (g) of the Constitution, it is the fundamental duty of every citizen of India to protect and improve the natural environment including forests, rivers and wildlife and to have compassion for living creatures. In view of the constitutional mandate under Article 51(A)(g), it is the fundamental duty of every citizen to protect and improve natural environment including forest which will include mangroves. If this is the obligation of every citizen, the public bodies which are constituted by the citizens are bound by the fundamental duties under Article 51(A). Thus, it is the duty of the State and citizens to ensure that the mangroves are preserved and protected.

PUBLIC TRUST DOCTRINE

46 In the case of *Nature Lovers Movement vs State of Kerala*^{2a}, in paragraph 2, the Apex Court observed thus:

- “2. The Indian society has, for many centuries, been aware and conscious of the necessity of protecting environment and ecology. Sages and saints of India lived in forests. Their preachings contained in vedas, upanishads, smritis, etc. are ample evidence of the society's respect for plants, trees, earth, sky, air, water and every form of life. The main motto of social life is to live in harmony with nature. **It was regarded as a sacred duty of everyone to protect them. In those days, people worshipped trees, rivers and sea which were treated as belonging to all living creatures. The children were educated by elders of the society about the necessity of keeping the environment clean and protecting earth, rivers, sea, forests, trees, flora, fauna and every species of life.**”

(emphasis added)

47 In the case of *Association for Environment Protection vs. State of Kerala*^{2b}, the Apex Court observed thus:

- “2. The ancient Roman Empire developed a legal theory known as the “doctrine of the public trust”. It was founded on the premise that certain common properties such as air, sea, water and forests are of immense importance to the people in general and they must be held by the Government as a trustee for the free and unimpeded use by the general public and it would be wholly unjustified to make them a subject of private ownership. **The doctrine enjoins upon the Government to protect the resources for the enjoyment of the general public rather than to permit their use for private ownership or commercial exploitation to satisfy the greed of a few.**”

(emphasis added)

^{2a} (2009)5 SCC 373

^{2b} (2013)7 SCC 226

48 In the case of *M.C. Mehta Vs. Kamal Nath and Ors.*³, in paragraph 34 and 35, the Apex Court held thus :

“34. **Our legal system – based on English common law – includes the public trust doctrine as part of its jurisprudence. The State is the trustee of all natural resources which are by nature meant for public use and enjoyment. Public at large is the beneficiary of the sea-shore, running waters, airs, forests and ecologically fragile lands.** The State as a trustee is under a legal duty to protect the natural resources. These resources meant for public use cannot be converted into private ownership.

35. We are fully aware that the issues presented in this case illustrate the classic struggle between those members of the public who would preserve our rivers, forests, parks and open lands in their pristine purity and those charged with administrative responsibilities who, under the pressures of the changing needs of an increasingly complex society, find it necessary to encroach to some extent upon open lands heretofore considered inviolate to change. The resolution of this conflict in any given case is for the legislature and not the courts. If there is a law made by Parliament or the State Legislatures the courts can serve as an instrument of determining legislative intent in the exercise of its powers of judicial review under the Constitution. But in the absence of any legislation, the executive acting under the doctrine of public trust cannot abdicate the natural resources and convert them into private ownership, or for commercial use. **The aesthetic use and the pristine glory of the natural resources, the environment and the ecosystems of our country cannot be permitted to be eroded for private, commercial or any other use unless the courts find it necessary, in good faith, for the public good and in public interest to encroach upon the said resources.”**

(emphasis added)

³ (1997) 1 SCC 388

49 In the case of *Fomento Resorts & Hotels Limited and Anr. vs. Minguel Martins and Ors.*⁴, in paragraphs 53 to 55 and 65, the Apex Court held thus :

“53. The public trust doctrine enjoins upon the Government to protect the resources for the enjoyment of the general public rather than to permit their use for private ownership or commercial purposes. This doctrine puts an implicit embargo on the right of the State to transfer public properties to private party if such transfer affects public interest, mandates affirmative State action for effective management of natural resources and empowers the citizens to question ineffective management thereof.

54. The heart of the public trust doctrine is that it imposes limits and obligations upon government agencies and their administrators on behalf of all the people and especially future generations. For example, renewable and non-renewable resources, associated uses, ecological values or objects in which the public has a special interest (i.e. public lands, waters, etc.) are held subject to the duty of the State not to impair such resources, uses or values, even if private interests are involved. **The same obligations apply to managers of forests, monuments, parks, the public domain and other public assets.** Professor Joseph L. Sax in his classic article, “The Public Trust Doctrine in Natural Resources Law : Effective Judicial Intervention” (1970), indicates that the public trust doctrine, of all concepts known to law, constitutes the best practical and philosophical premise and legal tool for protecting public rights and for protecting and managing resources, ecological values or objects held in trust.

55. The public trust doctrine is a tool for exerting long-established public rights over short-term public rights and private gain. Today every person exercising his or her right to use the air, water, or land and associated natural ecosystems has the obligation to secure for the

⁴ (2009) 3 SCC 571

rest of us the right to live or otherwise use that same resource or property for the long-term and enjoyment by future generations. To say it another way, a landowner or lessee and a water right holder has an obligation to use such resources in a manner as not to impair or diminish the people's rights and the people's long-term interest in that property or resource, including down slope lands, waters and resources.

65. **We reiterate that natural resources including forests, water bodies, rivers, seashores, etc. are held by the State as a trustee on behalf of the people and especially the future generations. These constitute common properties and people are entitled to uninterrupted use thereof.** The State cannot transfer public trust properties to a private party, if such a transfer interferes with the right of the public and the court can invoke the public trust doctrine and take affirmative action for protecting the right of people to have access to light, air and water and also for protecting rivers, sea, tanks, trees, forests and associated natural ecosystems.”

(emphasis added)

50 Public at large has a right to enjoy and have a benefit of our forests including mangroves forest. The pristine glory of such forests must be protected by the State. The mangroves protect our environment. Therefore, apart from the provisions of various statutes, the doctrine of public trust which is very much applicable in India makes it obligatory duty of the State to protect and preserve mangroves.

PRECAUTIONARY PRINCIPLE

51 In the case of *M.C.Mehta (Badhkal and Surajkund Lakes matter) vs Union of India*⁵, the Apex Court held thus:

“10. In *M.C. Mehta v. Union of India* [(1987) 4 SCC 463] this Court held as under:

⁵ (1997) 3 SCC 715

“The financial capacity of the tanneries should be considered as irrelevant while requiring them to establish primary treatment plants. Just like an industry which cannot pay minimum wages to its workers cannot be allowed to exist, a tannery which cannot set up a primary treatment plant cannot be permitted to continue to be in existence for the adverse effects on the public. Life, public health and ecology have priority over unemployment and loss of revenue problem.”

The “Precautionary Principle” has been accepted as a part of the law of the land. Articles 21, 47, 48-A and 51-A(g) of the Constitution of India give a clear mandate to the State to protect and improve the environment and to safeguard the forests and wildlife of the country. It is the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures. **The “Precautionary Principle” makes it mandatory for the State Government to anticipate, prevent and attack the causes of environment degradation.** We have no hesitation in holding that in order to protect the two lakes from environmental degradation it is necessary to limit the construction activity in the close vicinity of the lakes.”

(emphasis added)

52 It is not disputed by the State and it is also borne out from the material including the action taken reports on record submitted on behalf of the State Government that there have been instances of destruction of mangroves in the State. The photographs produced on record clearly show that there is a large scale destruction. The precautionary principle will apply to the destruction of mangroves and therefore, the State is under an obligation to anticipate, attack and prevent the reclamation of mangrove areas. It is duty bound to prevent degradation of mangroves.

ROLE OF RAMSAR CONVENTION

53 The 8th meeting of the contracting parties (which includes

India) to the Convention on Wetlands at Ramsar in Iran in the year 1971, was held in Spain in November 2002. In the said meeting, a resolution was passed as regards the mangroves which reads thus:

“Resolution VIII.32: Conservation, integrated management, and sustainable use of mangrove ecosystems and their resources

1. **RECOGNIZING** the major importance of the wide range of ecological goods and services provided by mangrove ecosystems, including their vital role in acting as spawning and nursery areas for many species of economic importance, and the economic, social and environmental importance of mangroves for, *inter alia*, fishing, biodiversity, coastal protection, recreational activities, education, and coastal and shelf water quality;
2. **ALSO RECOGNIZING** that the survival of a large number of local communities and indigenous peoples depends upon the productivity and health of mangrove ecosystems;
3. **RECOGNIZING FURTHER** that mangrove ecosystems are important for regulation of natural processes and maintaining biological diversity in the coastal zones of the countries in which they occur, and that many species, notably, *inter alia*, fish, molluscs, crustaceans, migratory and resident waterbirds, and aquatic mammals, as well as threatened species, are ecologically dependent upon mangroves and their surrounding areas;
4. **AWARE** that healthy mangrove ecosystems, in conjunction with their associated coral reefs, seagrass beds, and intertidal flats, can play an important role in mitigating climate change and sea-level rise, including through carbon sequestration and the buffering of sea-level rise and storms, particularly in view of the current extent of coral bleaching and Intergovernmental Panel on Climate Change (IPCC) predictions of future increase in coral bleaching, as is recognized in document COP8 DOC. 11 and Resolution VIII.3;
5. **CONCERNED** that, despite this widely-recognized importance of mangrove ecosystems, the area of mangrove ecosystems continues to decrease in many countries as the result of destruction and degradation through human activities that use mangroves and

- their surrounding areas, or that disrupt the flow of freshwater or tidal flows to mangrove ecosystems, without appropriate planning, management and control mechanisms;
6. **AWARE** of the increasing availability of knowledge about practices related to the sustainable use of mangrove ecosystems by the ancestral communities of users and that experiences and technical knowledge about the conservation and sustainable use of these ecosystems should receive wide dissemination at the national and global levels;
 7. **TAKING NOTE** of the need to strengthen at the global level the mechanisms for exchanging good practices and technical knowledge about mangrove ecosystems and to benefit from those exchanges, while at the same time promoting and strengthening these activities among local communities, with the cooperation, where appropriate, of local people and national or international organizations with knowledge or interest in the sustainable use of the biological diversity of mangrove ecosystems;
 8. **AWARE** that Contracting Parties to this Convention have concluded through Action 6.2.3 of its Strategic Plan 1997-2002 that mangrove ecosystems are under-represented in the List of Wetlands of International Importance, and that guidance on the identification and designation of mangrove ecosystems has been adopted by this meeting of the Conference of the Parties (Resolution VIII.11);
 9. **RECOGNIZING** that mangrove ecosystems are dependent on ecological processes and influenced by socio-economic processes that occur in river basins and the wider coastal zones in which they occur, and that their capacity to continue to provide their values and functions depends upon sustainable land-use management at the wider scale, as is recognized by Resolution VII.18 concerning river basin management and the guidance adopted by this meeting concerning site-based management planning (Resolution VIII.14), water allocation and management (Resolution VIII.1), and integrated coastal zone management (Resolution VIII.4);
 10. **RECALLING** Resolution VII.21, which specifically refers to mangrove ecosystems as an integral part of intertidal

wetlands which have been lost and degraded due to unsustainable activities; and

11. ALSO RECALLING the Annex to Resolution VIII.11 which refers to the principal factors causing loss and damage to mangrove ecosystems worldwide as a result of unsustainable exploitation practices, such as habitat destruction, hydrological changes, pollution, and unsustainable aquaculture;

THE CONFERENCE OF THE CONTRACTING PARTIES

12. **REQUESTS Contracting Parties with mangrove ecosystems in their territories to review, and as appropriate to modify their national policies and strategies that could have harmful effects on these ecosystems, and to implement measures to protect and restore their values and functions for human populations, recognizing their rights, uses and traditional customs and the maintenance of biodiversity, and to cooperate at the international level to agree regional and global strategies for their protection;**
13. ALSO REQUESTS the Contracting Parties with mangroves ecosystems in their territories to promote their conservation, integrated management and sustainable use within the context of the national policies and regulatory frameworks, and in accordance with environmental and strategic assessments of the activities that could affect, directly or indirectly, the structure and function of the mangrove ecosystems;
14. **EXHORTS relevant Contracting Parties to update information on mangrove ecosystem cover and their conservation status, as well as the forms and levels of their use, and to provide this information to the Ramsar Bureau and the Convention's Scientific and Technical Review Panel (STRP) so as to assist their work as called for in Resolution VIII.8 concerning status and trends in wetlands;**
15. ALSO EXHORTS those Contracting Parties with mangrove ecosystems within their territories to exchange information relating to their conservation, integrated management, and sustainable use, especially where this involves the full participation of local communities and indigenous peoples;
16. REQUESTS the Ramsar Bureau and the STRP, as resources permit, and the Contracting Parties to

- contribute to the initiatives concerning the transfer of environmentally sound technologies for the sustainable management of mangrove ecosystems, and to make this available to the users;
17. **ALSO REQUESTS** Contracting Parties with mangrove ecosystems within their territories, including those of their dependent territories, according to their capacities and internal regulations, to designate mangrove ecosystems that fulfill the criteria for their inclusion in the List of Wetlands of International Importance, in order to create a coherent national and international network of designated Ramsar sites as called for in the Strategic Framework and Vision for the List of Wetlands of International Importance (Resolution VII.11), and in doing so to emphasize particularly those Ramsar sites which are important for local communities and indigenous peoples in terms of their subsistence and cultural values;
 18. **ALSO REQUESTS** all relevant Contracting Parties to **recognize the importance of mangrove ecosystems for migratory and non-migratory birds, and to designate such areas as Ramsar sites that qualify under Criteria 4, 5, and 6 of the Strategic Framework adopted by Resolution VII.11**, in order to contribute to the establishment of coherent flyway-scale networks of Ramsar sites, in line, as appropriate, with the Joint Work Plan of the Ramsar Convention, Convention on Migratory Species, and African-Eurasian Migratory Waterbird Agreement (AEWA) as endorsed by Resolution VIII.5 and other conventions or related agreements;
 19. **ENCOURAGES** all relevant Contracting Parties to take into account in their management planning for Ramsar sites with mangrove ecosystems, applying the *New Guidelines for management planning for Ramsar sites and other wetlands* and other guidance adopted by this meeting (Resolutions VIII.1, VIII.4, and VIII.14), the ecological and socio-economic factors that occur in river basins and coastal zones to which they are related, and to ensure that their wider land-use planning and management does not adversely affect their mangrove ecosystems, such as through the introduction of pollutants, modification of water flows, sediment inputs, and exotic species;

20. ALSO ENCOURAGES all relevant Contracting Parties to recognize fully the important role mangrove ecosystems can play in mitigating climate change and sea-level rise, especially in low-lying areas and Small Island Developing States, and to plan their management, including required adaptation measures, so as to ensure that the mangrove ecosystems may respond to impacts caused by climate change and sea-level rise;
21. URGES all relevant Contracting Parties to identify the factors degrading their mangrove ecosystems and to seek to restore such ecosystems, using the guidance on this matter adopted by this meeting (Resolution VIII.16), so that they can deliver their range of values and functions; and
22. REQUESTS the Ramsar Bureau to make all possible efforts to secure financial resources and advance technical cooperation for promoting the conservation, integrated management, and sustainable use of mangrove ecosystems and their resources through appropriate existing partnerships and agreements with international and regional organizations.”
(emphasis added)

54 The Government of India and the State Government will be under a duty to implement the aforesaid Covenants. Therefore, it is all the more necessary that both the State and Central Government to make all possible efforts to preserve and protect mangroves.

ARTICLE 21 VIOLATION

55 Mangroves ecosystems play a vital role in human life. In the subsequent part of this judgment, we have quoted a decision of the Apex Court which notes that the mangroves forests are of great ecological importance and are also ecologically sensitive. Considering the vital role played by the mangroves which can be seen from what is set out above, if a citizen is to lead a meaningful life as contemplated by Article 21 of the Constitution of India, the mangroves will have to be preserved and protected . Considering the drastic effects of destruction

of mangroves on the environment, the destruction of mangroves and the failure of the State to take steps for its restoration will amount to violation of fundamental rights guaranteed by Article 21 of the Constitution.

**CONTINUATION OF THE INTERIM DIRECTIONS
AS THE FINAL DIRECTIONS**

56 Now we turn to the interim directions contained in the order dated 6th October 2005. We have already quoted interim directions contained in the order dated 6th October 2005. One of the said direction is quoted by the Apex Court in its decision in the case of *Krishnadevi Malchand Kamathia and ors. vs. Bombay Environmental Action Group*⁵. Paragraph 6 quotes direction No.(xii) regarding notifying mangroves areas on Government owned lands as protected forests. It refers to the notification dated 18th February 2009 issued by the Divisional Commissioner notifying the lands of the appellant before the Apex Court as such. In paragraphs 30 to 32, the Apex Court held thus :-

“30. The CRZ Regulations define for regulating developmental activities, coastal stretches within 500 m of the landward side of the high tide line into four categories. Category I (CRZ-I) is defined as under:

“(i) **Areas that are ecologically sensitive and important, such as, national parks/marine parks, sanctuaries, reserved forests, wildlife habitats, mangroves, corals/coral reefs, areas close to breeding and spawning grounds of fish and other marine life, areas of outstanding natural beauty/historical/heritage areas, areas rich in genetic diversity, areas likely to be inundated due to rise in sea level consequent upon global warming and other such areas as may be declared by the Central Government or the authorities concerned at the**

⁵ 2011(3) SCC 363

State/Union Territory level from time to time.”

31. The regulation of *development or construction* activities in CRZ-I areas is to be in accordance with the following norms:
 “CRZ-I *Between LTL and HTL in areas which are not ecologically sensitive and important*, the following may be permitted: (a) exploration and extraction of natural gas; (b) activities as specified under proviso of sub-paras (i) and (ii) of Para 2; (c) construction of dispensaries, schools, public rain shelters, community toilets, bridges, roads, jetties, water supply, drainage, sewerage which are required for traditional inhabitants of the Sunderbans Biosphere Reserve Area, West Bengal, on a case-to-case basis, by the West Bengal State Coastal Zone Management Authority; (d) *salt harvesting by solar evaporation of seawater*; (e) desalination plants; (f) storage of non-hazardous cargo such as edible oil, fertilisers and foodgrain within notified ports; (g) construction of trans-harbour sea links.”
32. From the above, **it is evident that mangroves fall squarely within the ambit of CRZ-I. The Regulations allow for salt harvesting by solar evaporation of seawater in CRZ-I areas only where such area is not ecologically sensitive and important. In the instant case it has been established that mangrove forests are of great ecological importance and are also ecologically sensitive.** Thus, salt harvesting by solar evaporation of seawater cannot be permitted in an area that is home to mangrove forests.”
 (emphasis added)

57 The Apex Court observed that the mangroves forests are of great ecological importance and are also ecologically sensitive. This observation is made after observing that mangroves falls squarely within the ambit of CRZ-I. Thus, even if the area abutting the mangroves which were in existence when 1991 notification came into force was already developed, the mangroves area will fall in CRZ-I and not in CRZ-II. If there are mangroves in existence between the shoreline and the developed area, the mangroves will fall in CRZ-I under both

the CRZ notifications. The Apex Court, therefore, did not permit salt harvesting activity on the mangroves areas. The Apex Court proceeded to issue several directions including the direction to restore *status-quo ante* against the appellant. It can be seen from the said decision that the Apex Court virtually approved the direction given by this Court in clause 8(xii) regarding mangroves areas on the Government owned lands to be declared as protected forests.

58 We must note here that none of the respondents have ventured to deny this factual statements made in the petition about the important role played by the mangroves eco-systems. On the contrary, the affidavit of the State of Shri Milind Panditrao, Divisional Forest Officer shows that except for the directions regarding the mangroves on private lands, the State Government claims to have made a sincere effort to implement the directions issued by this Court under the order dated 6th October 2005. Whether the State has implemented all the directions issued or not is an altogether a different issue. What is important is that the State has shown willingness to abide by almost all directions including the direction regarding keeping buffer zone of 50 meters . Considering the applicability of the public trust doctrine and the statutory and constitutional duty of the State, the said direction for stopping all construction taking place within 50 meters on all sides of all mangroves will have to be maintained as this direction will protect the mangroves. If construction activity is permitted in the said buffer zone, it will inevitably cause damage to the mangroves. No construction/development permission can be granted in the buffer zone of 50 meters of mangroves having an area less than 1000 square meters, unless the concerned development authorities are fully satisfied that even if development is carried out, no damage whatsoever will be

caused to the mangroves. As pointed out earlier, in case of mangrove area of 1000 square meters or more, 50 meter buffer zone will be a part of CRZ-I and such a buffer zone will be subject to all the restrictions provided in CRZ Regulations.

59 Therefore, there is no difficulty in continuing the directions issued in the order dated 6th October 2005 as final directions with certain modifications. As far as the directions contained in relation to mangroves on private properties are concerned, we propose to deal with the same separately.

MANGROVES ON PRIVATE LANDS

60 Now, we turn to the issue of mangrove areas forming a part of the private lands. For that purpose, it will be necessary to make a reference to the provisions of the Private Forest Act. We have already held that a mangroves forest on a private land will be a forest within the meaning of the said Act of 1980 and therefore, necessary consequences will follow. The question is whether such areas can be transferred to the Forest Department and for that reason, it is necessary to make a reference to the provisions of the Private Forest Act.

61 Clause (f) of Section 2 defines “Private Forest” which reads thus :

“(f) “private forest” means any forest which is not the property of Government and includes, -

- (I) any land declared before the appointed day to be a forest under section 34A of the Forest Act;
- (ii) any forest in respect of which any notification issued under sub-section (1) of section 35 of the Forest Act, is in force immediately before the appointed day;
- (iii) any land in respect of which a notice has been issued under sub-section (3) of section 35 of the Forest Act,

- but excluding an area not exceeding two hectares in extent as the Collector may specify in this behalf;
- (iv) land in respect of which a notification has been issued under section 38 of the Forest Act;
 - (v) in a case where the State Government and any other person are jointly interested in the forest, the interest of such person in such forest;
 - (vi) sites of dwelling houses constructed in such forest which are considered to be necessary for the convenient enjoyment or use of the forest and lands appurtenant thereto;”

62 Section 3 of the “Private Forest Act” is material which reads thus :-

- “3.(1) Notwithstanding anything contained in any law for the time being in force or in any settlement, grant, agreement, usage, custom or any decree or order of any Court, Tribunal or authority or any other document, with effect on and from the appointed day, all private forests in the State shall stand acquired and vest, free from all encumbrances, in, and shall be deemed to be, with all rights in or over the same or appertaining thereto, the property of the State Government, and all rights, title and interest of the owner or any person other than Government subsisting in any such forest on the said day shall be deemed to have been extinguished.
- (2) Nothing contained in sub-section (1) shall apply to so much extent of land comprised in a private forest as is held by an occupant or tenant and is lawfully under cultivation on the appointed day and is not in excess of the ceiling area provided by section 5 of the Maharashtra Agricultural Lands (Ceiling on Holdings) Act, 1961, for the time being in force or any building or structure standing thereon or appurtenant thereto.
- (3) All private forests vested in the State Government under sub-section (1) shall be deemed to be reserved forests within the meaning of the Forest Act.”

63 Sub-section (1) of Section 3 applies to a “private forest” defined under clause (f) of Section 2. Thus, vesting under sub-section (1) will apply only in case of a private forest within the meaning of clause (f) of Section 2 of the Private Forest Act. Therefore, only those lands which are covered by clause (f) of section 2 will vest in the State Government in accordance with section 3 of the Private Forest Act. Such vesting will be automatic in view of sub-section (1) of Section 3. Hence, such private mangroves lands which are covered by the definition under section 2(f) will vest in the State Government on the appointed day which is 30th August 1975.

64 The second part of the direction given in clause 8(ix) of the order dated 6th October 2005 is to declare the mangrove areas which are privately owned as forests. Clause (xi) further provides that from the list of mangrove areas so identified, the Government lands shall be declared/notified as protected forests and likewise, privately owned lands from the list of mangroves areas so identified shall be declared/notified as forests. In view of the definition of forest in clause (c-i) of Section 2, a land covered by mangroves will be a “forest”. But, no consequences as provided in section 3 will follow under the Private Forest Act unless such a land is a “private forest” under clause (f) of Section 2.

65 Continuation of the interim direction to declare privately owned mangrove area as forest and to transfer the same to Forest Department poses some difficulty. Under the said Act of 1927, there are two categories of forests which could be declared by the State Government. One is the protected forest under Section 29 to which we have already made a reference. The other is reserved forest. The power to declare reserved forest is under Section 3 of the said Act of 1927. A

privately owned land cannot be declared as a protected forest or reserved forest over which the State Government has no proprietary rights. Moreover, sections 34A to 37 of the said Act of 1927 stand repealed for the State of Maharashtra by virtue of section 24 of the Private Forest Act with effect from 30th March 1975. Going back to the Private Forest Act, as observed earlier, every mangroves area which is privately owned will not fall in the definition of private forest in clause (f) of section 2. Another Section which is relevant in the Private Forest Act is Section 21. It confers a power on the State Government to declare a land which is not covered by clause (f) above as a private forest. Section 21 of the Private Forest Act reads thus :-

“21. Declaration of certain lands as private forests -

- (1) Wherever it appears to the State Government that any tract of land not being the property of Government, contains trees and shrubs, pasture lands and any other land whatsoever, and that it should be declared in public interest and for furtherance of the objects of this Act. to be a private forest, the State Government shall publish a notification in the Official Gazette -
- (a) declaring that it is proposed to declare such tract of land to be a private forest; and (b) specifying, as nearly as possible, the situation and limits of such tract.
- (2) On the publication of such notification, the Collector or any other officer authorised in this behalf by the State Government shall issue a notice to the owner of such tract of land and to all other persons having an interest in such tract of land calling on them to show cause, within a reasonable period to be specified in such notice, why such declaration should not be made.
- (3) After hearing the objections if any, of the owner and other persons and considering any evidence that they may produce in support of the same, the Collector, or as the case may be, the authorised officer shall submit his report to the State Government, along with the objections, proceeding and his opinion whether the tract of land should or should not be declared to be a private forest.
- (4) After taking into consideration the objections,

proceeding and report and the opinion of the Collector, or as the case may be of the authorised officer, the State Government shall decide, whether such tract of land or any part thereof should or should not be declared to be a private forest, and such decision shall be final.

- (5) If the State Government decides to declare such tract of land or any part thereof to be a private forest, it shall publish such decision by a notification in the Official Gazette.
- (6) Upon publication of the notification under sub-section (5), the tract of land in question or any part thereof shall be deemed to be private forest and thereupon, all the provisions of this Act shall apply thereto, subject to the modification that the appointed day in relation thereto shall be deemed to be the date of the issue and publication of the notification in the Official Gazette under sub-section (5) in relation thereto.
- (7) If the State Government decides not to declare such tract of land or any part thereof to be a private forest, it shall communicate its decision to all persons interested in such tract of land or any part thereof.
- (8) On the publication of a notification under sub-section (1) in respect of any tract of land, it shall not be lawful for the owner of such tract of land or any other person to do therein, except with the previous permission in writing of the Divisional Forest Officer, any of the following things, for a period of one year from the date of such publication, or till the date of the publication of the notification under sub-section (5), or as the case may be, till the date of communicating the decision under sub-section (7), whichever period expires earlier, namely :---
 - (a) the breaking up or cleaning of the land for cultivation;
 - (b) the pasturing of cattle;
 - (c) the felling or cleaning of the vegetation ;
 - (d) the girdling tapping or burning of any tree of the stripping off the bark or leaves from any tree;
 - (e) the lopping and pollarding of tree;
 - (f) the cutting, sawing, conversion and removal of trees and timber; or
 - (g) the quarrying of stone or the burning of lime or charcoal or the collection or removal of any forest

produce or its subjection to any manufacturing process.

- (9) If any person contravenes the provision of sub-section (8), he shall, on conviction, be punished with imprisonment for a term which may extend to six months or with fine or with both.”

66 Under Section 21, a private land not covered by clause (f) of Section 2 can be declared as a private forest. Thus, if a privately owned mangrove land is to be declared as private forest, the procedure under Section 21 will have to be undertaken. It cannot be said that every private land containing trees and shrimps or pasture lands should be declared as a private forest by exercising power under Section 21. It is ultimately left to the State Government to take recourse to Section 21. Therefore, a writ of mandamus cannot be issued directing the State Government to exercise the power under Section 21 of the Private Forest Act of declaring every privately owned mangrove area as a private forest. However, as held earlier, whether such area is declared as a private forest under Section 21 or not, it is a forest as held by the Apex Court in the case of *T.N. Godavarman (supra)* and therefore, the same cannot be used by the owner thereof for non-forest purposes. There is one more aspect of the matter. In case of a private forest which vests in the State Government under sub-section (1) of Section 3 of the Private Forest Act, certain amounts become payable to the owners under Section 7 of the Private Forest Act as compensation. Therefore, in case of a land in respect of which the power under Section 21 of the Private Forest Act is exercised, compensation will be payable by the State Government. Therefore, we are of the view that a blanket direction to declare private mangrove areas as a private forest under the Private Forest Act cannot be issued. However, the Government will have

to be directed to consider the cases where Section 21 deserves to be invoked and initiate action to invoke Section 21 in accordance with law.

MONITORING COMMITTEE TO BE CONSTITUTED

67 In paragraph 8 of the order dated 6th October 2005, a direction was issued by the State Government to designate a senior officer not below the rank of the District Magistrate and the Collector and Deputy Commissioner of Police to oversee the implementation of the directions issued. As per the circular dated 21st October 2005 issued by the State Government, the Divisional Commissioner, Konkan Division was entrusted with the responsibility of the implementation of the directions of this Court.

68 In PIL No.218 of 2013, for the Navi Mumbai area in Thane District, a Committee headed by the Divisional Commissioner, Konkan Division has been constituted which has several members. The said Committee is entrusted with the task of coordinating the activity of protecting mangroves in the said area. The State Government by a letter dated 1st August 2018 (marked as “L 10 for identification”) addressed to the learned Additional Government Pleader has agreed to constitute only one Committee headed by the Divisional Commissioner, Konkan Division for all the 7 coastal districts of Maharashtra. We accept the statements made in the said letter. It will be appropriate if such Committee consists of the District Collectors as suggested by the State Government, Nodal Police Officers for each District not below the rank of Deputy Superintendent of Police as may be nominated by the State Government, the Nodal Officers of appropriate higher rank appointed by all the Planning Authorities within the meaning of the Maharashtra Regional and Town Planning Act, 1966 (for short “MRTP Act”) which are having coastal areas within its jurisdiction, Higher

officers of the Forest Department, Officers of Mangroves Conservation Units/ Mangroves Cell, Member Secretary of MCZMA, Regional officer/s of the Maharashtra Pollution Control Board, representatives of NGOs working in the field, the representatives of organizations of local fisher folk communities, experts in the field of conservation etc. The State Government may consider of including the Petitioners in this PIL and PIL no.218 of 2013 in the Committee. As stated in the letter of the State Government, the Committee shall be responsible for coordinating the activity of protection and conservation of mangrove areas in all the coastal districts. Naturally, the same Committee should be given responsibility of monitoring the implementation of the directions issued by this Court for protection and conservation of mangroves and restoration of destructed mangroves. The function of the Committee will be to ensure that various agencies/ authorities/ officers who are vested with the statutory powers act promptly and effectively. The State Government shall establish a secretariat of the said Committee with a central control room to receive complaints and immediate action thereon. All the infrastructure and necessary funds should be provided to the Committee as per the requisitions issued by the Committee from time to time. The Divisional Commissioner will have to be authorised to constitute sub-committees at District/Taluka level. The Committee will have to submit quarterly action taken and compliance reports to this Court. The first report shall be submitted on 1st December 2018. The Committee shall be entitled to seek further directions by filing an application through the Government Pleader. The Committee shall regularly hold meetings. It will be open to hold meetings by use of video conferencing facility. The minutes of the meeting shall be published on the web site of the Commissioner or of the Committee.

SETTING UP GRIEVANCE REDRESS MECHANISM

69 The State Government will have to create a Grievance Redress Mechanism for enabling the members of the public to lodge complaints about the activity of destruction /removal /cutting of the mangroves or causing damage to a mangroves area. An opportunity must be made available to file complaints about any acts or omissions which may ultimately result in destruction or causing damage to the mangroves area. The State Government shall make arrangements for receiving complaints on dedicated website, on toll free numbers and in physical form to the officers or offices nominated by the State Government in all coastal districts and especially in the areas where there are mangroves. A facility shall be made available for uploading the photographs by e-mail and by whats app or similar media by use of cell phone. The State Government must also create machinery to ensure that the said complaints are immediately transferred to the Committee headed by the Divisional Commissioner. The Committees will ensure that immediate action is taken of stopping the illegal destruction or acts amounting to causing damage to the mangrove areas, if necessary with the police help. Necessary register shall be maintained of the complaints received and action taken thereon. The State Government must lay down methodology by which the complainant is kept posted about the action taken on his or her complaint. On the request made by the complainant, the identity of the complainant shall be masked and the names of the complainant shall not be disclosed to violators of law.

DEVELOPMENT PLAN UNDER MRTP ACT

70 Now it will be necessary to refer to the provisions of the MRTP Act. The said Act contemplates preparation of Regional and Development Plans. The Regional Boards established under the said Act are entrusted with the responsibility of preparation of Regional Plans

and making periodical revision of such plans. Section 14 provides for contents of a Regional Plan which reads thus:

“14. Subject to the provisions of this Act and any rules made thereunder for regulating the form of a Regional plan and the manner in which it may be published, any such Regional plan shall indicate the manner in which the Regional Board propose that land in the Region should be used, whether by carrying out thereon development or otherwise, the stages by which any such development is to be carried out, the net-work of communications and transport, the proposals for conservation and development of natural resources, and such other matters as are likely to have an important influence on the development of the Region; and any such plan in particular, may provide for all or any of the following matters, or for such matters thereof as the State Government may direct, that is to say—

(a) allocation of land for different uses, general distribution and general locations of land, and the extent to which the land may be used as residential, industrial, agricultural, or as forest, or for mineral exploitation ;

(b) reservation of areas for open spaces, gardens, recreation, zoological gardens, nature reserves, animal sanctuaries, dairies and health resorts;

(c) transport and communications, such as roads, highways, railways, waterways, canals and airports, including their development ;

(d) water supply, drainage, sewerage, sewage disposal and other public utilities, amenities and services including electricity and gas ;

(e) reservation of sites for new towns, industrial estates and any other large scale development or project which is required to be undertaken for proper development of the Region or new town ;

(f) preservation, conservation and development of areas of natural scenery, forest, wild life, natural resources, and land-scaping;

(g) preservation of objects, features, structures or places of historical, natural, architectural or scientific interest and educational value ;

(h) areas required for military and defence purposes ;

(i) prevention of erosion, provision for afforestation, or

reforestation, improvement and redevelopment of water front areas, rivers and lakes ;

(j) proposals for irrigation, water supply and hydro-electric works, flood control and prevention of river pollution ;

(k) providing for the relocation of population or industry from over- populated and industrially congested areas, and indicating the density or population or the concentration of industry to be allowed in any areas.

.....
”

(emphasis added)

71 Every Planning Authority under the MRTTP Act is under a mandate to make a Development Plan and to make a revision at periodical intervals. The contents of the Development Plan are provided in section 22 which reads thus:

“22. Contents of Development plan.— A Development plan shall generally indicate the manner in which the use of land in the area of a Planning Authority shall be regulated, and also indicate the manner in which the development of land therein shall be carried out. In particular, it shall provide so far as may be necessary for all or any of the following matters, that is to say,—

- (a) proposals for allocating the use of land for purposes, such as residential, industrial, commercial, agricultural, recreational;
- (b) proposals for designation of land for public purpose, such as schools, colleges and other educational institutions, medical and public health institutions, markets, social welfare and cultural institutions, theaters and places for public entertainment, or public assembly, museums, art galleries, religious buildings and government and other public buildings as may from time to time be approved by the State Government;
- (c) **proposals for designation of areas for open spaces, playgrounds, stadia, zoological gardens, green belts, nature reserves, sanctuaries and dairies;**

- (d) transport and communications, such as roads, high-ways, park-ways, railways, water-ways, canals and air ports, including their extension and development;
- (e) water supply, drainage, sewerage, sewage disposal, other public utilities, amenities and services including electricity and gas;
- (f) reservation of land for community facilities and services;
- (g) proposals for designation of sites for service industries, industrial estates and any other development on an extensive scale;
- (h) preservation, conservation and development of areas of natural scenery and landscape;
- (I) preservation of features, structures or places of historical, natural, architectural and scientific interest and educational value [and of heritage buildings and heritage precincts];
- (j) proposals for flood control and prevention of river pollution;
- (k) proposals of the Central Government, a State Government, Planning Authority or public utility undertaking or any other authority established by law for designation of land as subject to acquisition for public purpose or as specified in a Development plan, having regard to the provisions of Section 14 or for development or for securing use of the land in the manner provided by or under this Act;
- (l) the filling up or reclamation of low lying, swampy or unhealthy areas or levelling up of land;
- (m) provisions for permission to be granted for controlling and regulating the use and development of land within the jurisdiction of a local authority [including imposition of fees, charges and premium, at such rate as may be fixed by the State Government or the planning Authority, from time to time, for grant of an additional Floor Space Index or for the special permissions or for the use of discretionary powers under the relevant Development Control Regulations, and also for imposition of] conditions and restrictions in regard to the open space to be maintained about buildings, the percentage of

building area for a plot, the location, number, size, height, number of storeys and character of buildings and density of population allowed in a specified area, the use and purposes to which buildings or specified areas of land may or may not be appropriated, the sub-division of plots, the discontinuance of objectionable users of land in any area in reasonable periods, parking space and loading and unloading space for any building and the sizes of projections and advertisement signs and boardings and other matters as may be considered necessary for carrying out the objects of this Act.”

(emphasis added)

72 Thus, in a Development Plan, mangroves areas and buffer zones will have to be specifically shown in view of clause (c) of section 22. The Regulations framed as per clause (m) must provide for ban on construction on mangroves area and its buffer zones as laid down earlier. Mangroves areas have been already identified by using MRSAC. In any event, in view of Section 21, preparation of land use map is a condition precedent for preparation of a Development Plan. Section 14 deals with contents of a Regional Plan. Clause (b) of Section 14 is similar to clause (c) of Section 22 which provides for reservation for gardens, nature reserves etc. Therefore, The in a Regional Plan, mangroves areas and buffer zones will have to be specifically shown. The State Government will have to issue a direction under section 154 of the MRTP Act to all concerned Planning Authorities and Regional Boards, as the case may be, to implement the aforesaid directions while making or amending or revising Development Plans/Regional Plans.

RESTORATION OF MANGROVE AREAS

73 One more important issue is to restore mangroves areas which are illegally reclaimed. The said areas have to be restored to its

original condition. That is the legal obligation of the State. In what manner restoration should be done should be decided by the Committee headed by the Divisional Commissioner after consulting experts in the field. It is necessary that the Committee identifies the vulnerable mangroves areas in the State and direct its constant surveillance either by the Police or Forest Guards or Security Guards of the Maharashtra Security Corporation. The Committee shall ensure that barricades are erected for entry of vehicles in such vulnerable area for preventing illegal dumping. The Committee shall also consider of installing CCTVs along the vulnerable stretches to keep a vigil. The Committee shall also cause to undertake satellite mapping of mangroves area at periodical intervals of not more than six months by using resolution as suggested in paragraph no.28 of the note submitted by the learned senior counsel appearing for the petitioner. Any changes seen shall be considered by the Committee and remedial measures shall be immediately taken. The State Government shall sanction necessary funds for that purpose.

**EFFECT OF THE ORDER DATED 29th JULY 2015
IN CHAMBER SUMMONS NO.172 OF 2007**

74 Now we must refer to the order dated 29th July 2015. The prayer made before this Court was that certain plots be excluded from the applicability of the direction contained in clause 8(iii) in the order dated 6th October 2005 regarding buffer zone of 50 meters. The said order dated 29th July 2015 is confirmed by the Apex Court. The order of the Apex Court dated 20th January 2016 shows that it is a summary dismissal. Therefore, the issue whether the said order of this Court is a binding precedent remains open. We find that on the plots subject matter of the said order, permissions were granted prior to the year 1996 for making public housing. Environmental clearances were granted prior to the order dated 6th October 2005. Before passing the

said order, the attention of the Court was not invited to the condition (xiii) imposed in the letter/order dated 27th September 1996 of the Central Government by which CZMP of the State of Maharashtra was sanctioned. The condition is that in case of mangroves with an area of 1000 square meters and more, a buffer zone of 50 meters will form a part of CRZ-I. Moreover, the CRZ notification of 2011 specifically provides that in case of mangroves with an area of 1000 square meters, a buffer zone of 50 meters will form a part of CRZ-I. Interim direction in clause 8(iii) is applicable to all mangroves area irrespective of its area. One of the reasons set out by us for confirming the said interim direction is that if construction activity is permitted within 50 meters of mangroves area, it will cause damage to the mangroves it being an ecologically fragile area. The area of 50 meters around mangroves area of less than 1000 square meters will not be a part of CRZ-I though such mangrove area will be a part thereof under the both 1991 and 2011 notifications. Only in case of mangroves lands having an area of 1000 square meters or more , it's 50 meter buffer zone will also be a part of CRZ-I.

75 The said order dated 29th July 2015 deals with the projects approved prior to the year 1996. The order ignores the provision regarding 50 meter buffer zone which was introduced on 27th September 1996. The said order dated 29th July 2015 was passed considering the peculiar facts in respect of the plots subject matter of the said order. By the said order, the issue of protecting mangroves was not finally decided. Hence, the said order cannot be held to be a binding precedent finally deciding the issue of buffer zone and CRZ classification. There is a circular/ order dated 5th March 2018 issued by the Department of Environment of the State Government on the basis of the order dated 29th July 2015. The learned Counsel for the Petitioners

in the connected writ petition has placed on record the said circular. However, now what will prevail is this Judgment and not the said circular which is based on the legal opinion of the Law Department.

PROCEDURE REGARDING SETTING CRIMINAL LAW IN MOTION

76 Whenever the offences punishable under section 15 of the said Act of 1986 are committed, criminal law has to be set in motion in accordance with section 19 of the said Act of 1986. In many cases, it is found that the police are straight-away registering First Information Reports by ignoring the provisions of section 19 of the said Act of 1986 which reads thus :-

“19. COGNIZANCE OF OFFENCES

No court shall take cognizance of any offence under this Act except on a complaint made by--

- (a) the Central Government or any authority or officer authorised in this behalf by that Government, or
- (b) any person who has given notice of not less than sixty days, in the manner prescribed, of the alleged offence and of his intention to make a complaint, to the Central Government or the authority or officer authorised as aforesaid.”

77 In the Judgment and Order dated 22nd December 2016 in PIL No.218 of 2013 in the case of *Navi Mumbai Environment Preservation Society And Anr. Vs. Ministry Of Environment, Through the Secretary, Department of Environment and Ors.*, this Court considered the procedural aspects regarding section 19 of the said act of 1986. Paragraphs 5 to 13 of the said Judgment and Order dated 22nd December 2016 in PIL No.218 of 2013 read thus :-

“5 As far as the officers authorised under clause (a) are concerned, a notification bearing No.394(E) has been issued by the Government of India under which the

District Collectors have been appointed as authority under clause (a) of the Section 19 for their respective Districts. Chairpersons, Member-Secretaries and Regional Officers of the State Pollution Control Board who have been delegated powers under Section 24 of the Air (Prevention and Control of Pollution) Act, 1974 have been also nominated as authorities under clause (a) of Section 19. The Chairman and Member-Secretary of the State Board have jurisdiction all over the State. The jurisdiction of the Regional Officers is confined to the notified area.

- 6 It is brought to our notice that in certain cases, First Information Reports have been registered for the offences punishable under Section 15 of the said Act of 1986 by the Police. The question is whether the Criminal Court can take cognizance of the offence on the basis of charge sheet filed on the basis of First Information Report registered by the Police.
- 7 Complaint is defined under the Code of Criminal Procedure, 1973 (for short “the said Code”) under clause (d) of Section 2 which reads thus :-
 - (d) "complaint" means any allegation made orally or in writing to a Magistrate, with a view to his taking action under this Code, that some person, whether known or unknown, has committed an offence, but does not include a police report.”
- 8 In the present case, only District Collectors and officers of the Maharashtra Pollution Control Board as set out above have been authorised under clause (a) of Section 19. It will be advisable if the information regarding commission of an offence punishable under Section 15 is immediately communicated to the District Collector or to the Regional Officers of the Maharashtra Pollution Control Board who are authorised officers under clause (a) of Section 19 who can set criminal law in motion. The question is whether registration of FIR at the instance of a person who is not authorised under clause (a) of Section 19 and the investigation carried out on the basis of the FIR becomes illegal.

9 In this behalf, it will be necessary to make a reference to a decision of the Apex Court in the case of *State (NCT of Delhi) Vs. Sanjay*⁶. In the said case, the Apex Court was dealing with the issue of taking cognizance of offences punishable under the Mines and Minerals (Development and Regulation Act) 1957 (for short “the said Act of 1957”). Section 22 of the said Act of 1957 provides that no Court shall take cognizance of any offence punishable under the said Act or Rules made thereunder except upon a complaint in writing made by a person authorised in this behalf by the Central Government or the State Government. One of the challenges before the Apex Court was to the decisions of Delhi High Court and Gujarat High Court dealing with the issue of legality of the First Information Reports registered by the Police. Paragraphs 9 to 12 of the said decision read thus :-

“9. The Delhi High Court after referring various provisions on the MMDR Act vis-à-vis the Code of Criminal Procedure disposed of the application directing the respondent to amend the FIR, which was registered, by converting the offence mentioned therein under Section_379/411/120B/34 of IPC to Section 21 of the MMDR Act. The High Court in para 18 of the impugned order held as under:-

“18. In view of the aforesaid and taking into consideration the provisions contained under Section 21 (6) of the said Act I hold that:

(i) The offence under the said Act being cognizable offence, the Police could have registered an FIR in this case;

(ii) However, so far as taking cognizance of offence under the said Act is concerned, it can be taken by the Magistrate only on the basis of a complaint filed by an authorized officer, which may be filed along with the police report;

(iii) Since the offence of mining of sand without permission is punishable under Section 21 of the said Act, the question of said offence being an offence under Section 379 IPC does not arise because the said Act makes illegal mining as an offence only when there is no permit/licence for such extraction

⁶ (2014) 9 SCC 772

and a complaint in this regard is filed by an authorized officer.

10. On the other hand the Gujarat High Court formulated the following question for consideration:-
 - (1) Whether Section 22 of the Act would debar even lodging an FIR before the police with respect to the offences punishable under the said Act and Rules made thereunder?
 - (2) In Case such FIR's are not debarred and the police are permitted to investigate, can the concerned Magistrate take cognizance of the offences on a police report?
 - (3) What would be the effect on the offences punishable under the Penal Code in view of the provisions contained in the Act?

11. The Gujarat High Court came to the following conclusion:-
 - (I) **The offence under the said Act being cognizable offence, the Police could have registered an FIR in this case;**
 - (ii) **However, so far as taking cognizance of offence under the said Act is concerned, it can be taken by the Magistrate only on the basis of a complaint filed by an authorized officer, which may be filed along with the Police report;**
 - (iii) Since the offence of mining of sand without permission is punishable under Section 21 of the said Act, the question of said offence being an offence under Section 379 IPC does not arise because the said Act makes illegal mining as an offence only when there is no permit/licence for such extraction and a complaint in this regard is filed by an authorized officer.

12. The Gujarat High Court, therefore, held that:-
 1. **Section 22 of the Act does not prohibit registering an FIR by the police on information being given with respect to offences punishable under the said Act or the Rules made thereunder.**
 2. **It is however, not open for the Magistrate to**

take cognizance of the offence punishable under the Act or the Rules made there under on a mere charge-sheet filed by the police. It would, however, be open for the officer authorized by the state or the Central Government in this behalf to file a complaint in writing before the Magistrate relying upon the investigating carried out by the police and the complaint may also include the papers of the police investigation.

3. With respect to offences punishable under the Penal Code, no such bar as indicated in para (2) would apply.”

(emphasis added)

- 10 We must note here that the offence under Sub-Section (1) of Section 15 attracts imprisonment for a term which may extend to 5 years. Therefore, as per Part II of the First Schedule to the said Code, the offence will be cognizable and therefore, Police can register the same under Sub-Section (1) of Section 154 of the said Code. Perusal of the decision of the Apex Court in the aforesaid case shows that the Apex Court has not disturbed the view taken by the Delhi High Court and Gujarat High Court which we have quoted above. Therefore, if FIR is registered by the Police for the offences punishable under Section of Section 15 of the said Act of 1986, the registration of offence and investigation carried out by the Police is not *per se* vitiated. A complaint can be made/filed by authorised officer under clause (a) of Section 19 before the concerned Court. While filing complaint, the authorised officer can always rely upon the material collected by the Police during the investigation. The Complaint can include the material collected by the Police during the investigation carried out on the basis of the FIR.
- 11 Another issue is about of those cases where on the basis of the First Information Reports registered for the offences punishable under Sub-Section (1) of Section 15 of the said Act of 1986 and charge sheet filed by the Police, Criminal Courts have taken cognizance. The question is whether trial in such cases is vitiated. This issue is dealt with by the Apex Court in the case of *H.N.*

*Rishbud and Inder Singh Vs. State of Delhi*⁷. Paragraphs 9 and 10 of the said decision read thus :-

“9. The question then requires to be considered whether and to what extent the trial which follows such investigation is vitiated. Now, trial follows cognizance and cognizance is preceded by investigation. This is undoubtedly the basic scheme of the Code in respect of cognizable cases. **But it does not necessarily follow that an invalid investigation nullifies the cognizance or trial based thereon. Here we are not concerned with the effect of the breach of a mandatory provision regulating the competence or procedure of the Court as regards cognizance or trial. It is only with reference to such a breach that the question as to whether it constitutes an illegality vitiating the proceedings or a mere irregularity arises. A defect or illegality in investigation, however serious, has no direct bearing on the competence or the procedure relating to cognizance or trial.** No doubt a police report which results from an investigation is provided in Section 190 of the Code of Criminal Procedure as the material on which cognizance is taken. But it cannot be maintained that a valid and legal police report is the foundation of the jurisdiction of the Court to take cognizance. Section 190 of the Code of Criminal Procedure is one out of a group of sections under the heading "Conditions requisite for initiation of proceedings. The language of this section is in marked contrast with that of the other sections of the group under the same heading, i.e. Sections 193 and 195 to 199. These latter sections regulate the competence of the Court and bar its jurisdiction in certain cases excepting in compliance therewith. But Section 190 does not. While no doubt, in one sense, clauses (a), (b) and (c) of Section 190(1) are conditions requisite for taking of cognizance, it is not possible to say that cognizance on an invalid police report is prohibited and is therefore a nullity. Such an invalid report may still fall either under clause (a)

⁷ AIR 1955 SC 196

or (b) of Section 190(1), (whether it is the one or the other we need not pause to consider) and in any case cognizance so taken is only in the nature of error in a proceeding antecedent to the trial. To such a situation Section 537 of the Code of Criminal Procedure which is in the following terms is attracted:

"Subject to the provisions hereinbefore contained, no finding, sentence or order passed by a Court of competent jurisdiction shall be reversed or altered on appeal or revision on account of any error, omission or irregularity in the complaint, summons, warrant, charge, proclamation, order, judgment or other proceedings before or during trial or in any enquiry or other proceedings under this Code, unless such error, omission or irregularity, has in fact occasioned a failure of justice".

If, therefore, cognizance is in fact taken, on a police report vitiated by the breach of a mandatory provision relating to investigation, there can be no doubt that the result of the trial which follows it cannot be set aside unless the illegality in the investigation can be shown to have brought about a miscarriage of justice. That an illegality committed in the course of investigation does not affect the competence and the jurisdiction of the Court for trial is well settled as appears from the cases in *Prabhu V. Emperor and Lumbhardar Zutshi V. King*. These no doubt relate to the illegality of arrest in the course of investigation while we are concerned in the present cases with the illegality with reference to the machinery for the collection of the evidence. This distinction may have a bearing on the question of prejudice or miscarriage of justice, but both the cases clearly show that invalidity of the investigation has no relation to the competence of the Court. We are, therefore, clearly, also, of the opinion that where the cognizance of the case has in fact been taken and the case has proceeded to termination, the invalidity of the precedent investigation does not vitiate the result, unless miscarriage of justice has been

caused thereby.

10. It does not follow, however, that the invalidity of the investigation is to be completely ignored by the Court during trial. When the breach of such a mandatory provision is brought to the knowledge of the Court at a sufficiently early stage, the Court, while not declining cognizance, will have to take the necessary steps to get the illegality cured and the defect rectified, by ordering such reinvestigation as the circumstances of an individual case may call for. Such a course is not altogether outside the contemplation of the scheme of the Code as appears from Section 202 under which a Magistrate taking cognizance on a complaint can order investigation by the police. Nor can it be said that the adoption of such a course is outside the scope of the inherent powers of the Special Judge, who for purposes of procedure at the trial is virtually in the position of a Magistrate trying a warrant case. When the attention of the Court is called to such an illegality at a very early stage it would not be fair to the accused not to obviate the prejudice that may have been caused thereby, by appropriate orders, at that stage but to leave him to the ultimate remedy of waiting till the conclusion of the trial and of discharging the somewhat difficult burden under Section 537 of the Code of Criminal Procedure of making out that such an error has in fact occasioned a failure of justice. It is relevant in this context to observe that even if the trial had proceeded to conclusion and the accused had to make out that there was in fact a failure of justice as the result of such an error, explanation to Section 537 of the Code of Criminal Procedure indicates that the fact of the objection having been raised at an early stage of the proceeding is a pertinent factor. To ignore the breach in such a situation when brought to the notice of the Court would be virtually to make a dead letter of the peremptory provision which has been enacted on grounds of public policy for the benefit of such an accused. It is true that the peremptory provision itself allows an officer of a lower rank to make the

investigation if permitted by the Magistrate. But this is not any indication by the Legislature that an investigation by an officer of a lower rank without such permission cannot be said to cause prejudice. When a Magistrate is approached for granting such permission he is expected to satisfy himself that there are good and sufficient reasons for authorising an officer of a lower rank to conduct the investigation. The granting of such permission is not to be treated by a Magistrate as a mere matter of routine but it is an exercise of his judicial discretion having regard to the policy underlying it. In our opinion, therefore, when such a breach is brought to the notice of the Court at an early stage of the trial the Court have to consider the nature and extent of the violation and pass appropriate orders for such reinvestigation as may be called for, wholly or partly, and by such officer as it considers appropriate with reference to the requirements of Section 5-A of the Act. It is in the light of the above considerations that the validity or otherwise of the objection as to the violation of Section 5(4) of the Act has to be decided and the course to be adopted in these proceedings, determined.”

- 12 Thus, in cases where charge sheets have been filed and the Courts have taken cognizance on the basis of Charge sheets, the proceedings of criminal case or trial will not *per se* stand vitiated. The same will stand vitiated only if there is a miscarriage of justice.

78 Thereafter, this Court proceeded to hold that registration of offences by the police under sub-section (1) of section 15 of the said Act of 1986 investigation carried out thereon is not *per se* illegal. While filing complaints, officers authorised under clause (a) of section 19 can always rely upon the material collected during the investigation and the material forming charge sheet prepared by the police. We concur with the view taken above. We must note here that the Committee headed

by the Divisional Commissioner will have to ensure that recourse is promptly taken to section 19 for setting the criminal law in motion by the officers empowered under clause (a) of Section 19.

79 There is a need to hold regular awareness programs in schools and colleges and various educational institutions for making the students aware about the drastic effects of destruction of mangroves. The State shall take steps in that behalf for making the students aware about the dangers which may be caused to the ecology and environment in case the mangroves forests are destructed or damaged. To reiterate, the failure of the State and its agencies/ instrumentalities to maintain and conserve the mangrove areas will amount to violation of rights of the citizens under Article 21 of the Constitution of India apart from other consequences. Though we are not issuing a writ, we hope and trust that the State Government will take such initiatives.

80 The State Government has not placed any material on record to show that compliance with clause 8(vii) of order dated 6th October 2005 has been made. We propose to direct the State Government to do so within two months by providing copies to the petitioners.

81 The mangroves lands held by the public authorities like CIDCO, MMRDA are also governed by sub-clauses (ix) to (xi) of clause 8 of the aforesaid order. Therefore, they must transfer the lands in their possession to the Forest Department.

82 Considering the prayers in the Writ Petition No. 2208 of 2004, no separate order is required to be passed therein. We are passing a separate order in Writ Petition No. 2741 of 2017.

SUMMARY OF IMPORTANT FINDINGS

83 The summary of some of the important conclusions read thus:

- (i) A land regardless of its ownership on which there are mangroves, is a forest within the meaning of the said Act of 1980 and therefore, the provisions of Section 2 of the said Act of 1980 and the law laid down by the Apex Court in the case of *T.N. Godavarman* will squarely apply to such land;
- (ii) A mangroves area on a Government land is liable to be declared as a protected forest or a reserved forest, as the case may be, within the meaning of the said Act of 1927;
- (iii) All mangroves lands irrespective of its area will fall in CRZ-I as per both the CRZ notifications of 1991 and 2011;
- (iv) In 1991 CRZ notification, it is provided that all mangrove areas will fall in CRZ-I. By virtue of the order dated 27th September 1996, in case of mangrove areas of 1000 square meters or more, 50 meter buffer zone abutting it was also included in CRZ-I. By order dated 9th January 2000, it was provided that 50 meter buffer zone will not be required, provided a road abutting the mangroves was constructed prior to February 1991. Under the 2011 notification, all mangroves lands fall in CRZ-I and in case the area of such land is 1000 square meters or more, even a buffer zone of 50 meters along the said area shall be a part of

CRZ-I. But, the buffer zone of 50 meters which is required to be kept free of constructions in respect of the mangroves area of less than 1000 square meters will not be a part of CRZ-I.;

- (v) if there is any violation of the CRZ notifications regarding mangroves area, it will attract penal provision under Section 15 of the said Act of 1986 which is attracted in case of the failure to comply with the provisions of orders or directions issued under the said Act of 1986. The conditions imposed in the the letter dated 27th September 1996 as amended will have to be construed as an order or direction under the said Act of 1986 as CZMP is required to be approved by the Central government in view of the clause 3(i) in the CRZ notification of 1991 which is an order or direction under the said Act of 1986. Hence, if there is any violation of the condition in the letter dated 27th September 1996 in respect of the 50 meter buffer zone, it will attract penal provision of Section 15 of the said Act of 1986.
- (vi) The destruction of mangroves offends the fundamental rights of the citizens under Article 21 of the Constitution of India.
- (vii) In view of the provisions of Articles 21, 47, 48A and 51A(g) of the Constitution of India, it is a mandatory duty of the State and its agencies and instrumentalities to protect and preserve mangroves;
- (viii) In view of applicability of public trust doctrine, the State is duty bound to protect and preserve mangroves. The mangroves cannot be permitted to be destructed by the

State for private, commercial or any other use unless the Court finds it necessary for the public good or public interest;

- (ix) The Precautionary Principle makes it mandatory for the State and its agencies and instrumentality to anticipate and attack causes and consequences of degradation of mangroves.

84 As far as Writ Petition No.2741 of 2017 is concerned, we are deciding the same by a separate order. Writ Petition No.2208 of 2014 will stand disposed of in terms of this Judgment.

85 For the reasons recorded above, we dispose of the PIL by passing the following order :-

ORDER

- (A) The following directions issued in the interim order dated 6th October 2005 shall continue to operate as final directions in following terms;
- (I) That there shall be a total freeze on the destruction and cutting of mangroves in the entire State of Maharashtra;
- (II) Dumping of rubble/garbage/solid waste on the mangrove areas shall be stopped forthwith;
- (III) Regardless of ownership of the land having mangroves and the area of the land, all constructions taking place within 50 metres on all sides of all mangroves areas shall be forthwith stopped. The area of 50 meters shall be kept free of construction except construction of a compound wall/fencing for its protection.;

- (IV) No development permission whatsoever shall be issued by any authority in the State of Maharashtra in respect of any area under mangroves. All authorities including the Planning Authorities shall note that all mangroves lands irrespective of its area will fall in CRZ-I as per both the CRZ notifications of 1991 and 2011. In case of all mangrove areas of 1000 sq. meter or more, a buffer zone of 50 meters along the mangroves will also be a part of CRZ-I area. Though buffer zone of 50 meters in case of mangroves area of less than 1000 meters will not be a part of CRZ-I, it will be subject to above restrictions specified in clause III above;
- (V) The State of Maharashtra is directed to file in this Court and furnish to the petitioner copies of the maps referred to in paragraph 10 of the affidavit dated 16th August, 2005, filed by Mr.Gajanand Varade, Director, Environment Department, State of Maharashtra (Page 346 on the record), within four weeks from today. The soft or hard copies of the maps be supplied to the Petitioner within the same period;
- (B) The following direction issued in terms of clause 8(viii) of the order dated 6th October 1005 has been substantially complied with :
- “The areas shown as mangrove area in the satellite study report “Mapping of mangroves in the Maharashtra State using Satellite Remote Sensing” dated August, 2005, prepared by the Maharashtra

Remote Sensing Application Centre (MRSAC) for the MCZMA which was submitted to this Court on 29th August, 2005, form part of Phase I of the mapping by MRSAC. The MRSAC will, in Phase-II, carry out mangroves study using high resolution for detailed mapping of mangroves with a view to identify more precisely mangrove areas in Mumbai and Navi Mumbai. After receiving the said satellite data, transfer of mangrove details on city survey/village maps (cadastral map) will be carried out within a period of 6 months from today”;

- (C) The directions in sub-clauses(ix) to (xiii) of clause 8 of the order dated 6th October 2005 shall continue to operate as final directions in respect of mangrove areas only on the government lands and the lands held by Planning Authorities like CIDCO, MMRDA etc. In respect of the lands admeasuring 2823.8493 Hectares as stated in the affidavit dated 14th February 2018 of Shri Milind Panditrao, the direction regarding transfer of the lands to the Forest Department and consequential directions regarding making revenue entries shall be complied with within a period of three months from the date on which this Judgment and Order is uploaded. The State Government shall identify the mangroves lands which were vested in it by virtue of section 3(1) of the Private Forest Act and shall take appropriate steps in respect of such lands for transferring such lands to Forest Department within a period of 18 months from today. It will be also open for the State Government to take recourse to section 21 of the Private Forest Act in appropriate cases;

- (D) We direct the State Government to constitute a Committee headed by the Divisional Commissioner, as agreed by the State Government. The Committee and sub-committees shall be formed in accordance with the observations made in paragraph 68 above. The committee shall be responsible for the preservation and conservation of mangroves, for restoration of reclaimed mangroves areas set out in paragraph 73 above and for implementation of the directions in this Judgment. The Committee shall be constituted within a period of one month from today. The sub-committees as observed in paragraph 68 shall be constituted within two months from today. The Committee shall hold regular meetings and the minutes of the meeting shall be made available on public domain as observed in paragraph 68 above. As directed under the order dated 6th October 2005, the Principal Secretaries of (1) Environment, (2) Revenue and (3) Forest Department of the Government of Maharashtra shall be overall in-charge for ensuring total compliance with the directions issued under this Judgment and Order. They will monitor the working of the Committee headed by the Divisional Commissioner;
- (E) The State Government shall create a Grievance Redress Mechanism for enabling the members of the public to lodge complaints about the activity of destruction /removal of the mangroves. An opportunity must be made available to file complaints about any acts or omission which may ultimately result in destruction or causing damage to the mangroves area. The State

Government shall make arrangements for receiving complaints on dedicated website, on toll free numbers and in physical form to the officers or offices nominated by the State Government in all districts and especially in the areas where there are mangroves. A facility shall be made available for uploading the photographs of the affected area by e-mail and by whats app or similar media by use of cell phone. The State Government must also create a machinery to ensure that the said complaints are immediately transferred to the Committee headed by the Divisional Commissioner. The Committees will ensure that immediate action is taken of stopping the illegal destruction or acts amounting to causing damage to the mangrove areas, if necessary with the police help. Necessary register shall be maintained of the complaints received and action taken thereon. The State Government must lay down the procedure by which complainant is kept posted about the action taken on his or her complaint. On the request made by the complainant, the identity of the complainant shall be masked and the names of the complainant shall not be disclosed to the violators;

- (F) The Grievance Redress Mechanism shall be set up within a period of three months from today. Adequate publicity shall be given to the availability of the Grievance Redress Mechanism in leading newspapers as well as local newspapers. Information about availability of the Grievance Redress Mechanism shall be prominently displayed in the offices of District Collectors, Sub-

Divisional Officers, Tahasildar in the Coastal Districts as well as in the offices of the Maharashtra Pollution Control Board and the Maharashtra Maritime Board in the coastal districts. The information shall be displayed prominently in the offices of the Municipal Corporations/Municipal Councils provided any coastal area forms part of the limits of such Municipal Corporation or such Municipal Council. Publicity shall be given at regular intervals of at least six months to the details of the grievance redress mechanism in leading newspapers having good circulation in the coastal areas;

- (G) We direct that it is the obligation of the State to replant destructed mangroves and to restore mangroves areas which are illegally reclaimed. The said areas shall be restored to its original condition. In what manner restoration shall be done must be decided by the Committee headed by the Divisional Commissioner after consulting experts in the field. The Committee shall identify the vulnerable mangroves areas in the State and direct its constant surveillance by the Police/Forest Guards/Security Guards of the Maharashtra Security Corporation. The Committee shall ensure that barricades are erected for preventing the entry of vehicles in such vulnerable area. The Committee shall also consider of installing CCTVs along the vulnerable stretches to keep a vigil. The Committee shall also cause to undertake satellite mapping of mangroves area in the state at periodical intervals of not more than six months by using resolution as suggested in paragraph no.28 of the note

submitted by the learned senior counsel appearing for the petitioner. Any changes seen shall be considered by the Committee and remedial measures shall be taken. The State Government shall sanction necessary amount for that purpose;

- (H) The State Government shall ensure that criminal law is set in motion against all those who commit offences punishable under section 15 of the said Act of 1986 as observed in the Judgment. The Committee shall monitor implementation of this direction;
- (I) The State Government shall issue a direction under section 154 of the MRTP Act to all concerned Planning Authorities and Regional Boards under the MRTP Act to show mangroves areas and 50 meter buffer zone around it while making or revising Development Plans/Regional Plans. Such a direction shall be issued within a period of three months from today;
- (J) Quarterly Compliance reports shall be filed by the Committee reporting compliance with the aforesaid directions. The first of such reports shall be filed on or before 1st December 2018;
- (K) Rule issued in PIL No.87 of 2006 is disposed of on above terms;
- (L) For reporting compliance, PIL shall be listed on 1st December 2018. It will be appropriate if PIL is placed for

monitoring the compliance before this Bench or a Bench of which one of us is a party. The Prothonotary and Senior Master shall seek appropriate directions in this behalf from Hon'ble the Chief Justice;

- (M) Writ Petition No. 2208 of 2004 stands disposed of. No separate directions are required to be issued in this Petition. Writ Petition No. 2741 of 2004 stands disposed of by a separate order passed today;

(RIYAZ I. CHAGLA, J)

(A.S. OKA, J)

**IN THE HIGH COURT OF JUDICATURE AT BOMBAY
CIVIL APPELLATE JURISDICTION**

PUBLIC INTEREST LITIGATION NO. 102 OF 2014

Surendra V. Dhawale .. Petitioner
V/s.
State of Maharashtra and ors. .. Respondents.

Mr. Aditya Pratap for the Petitioner.
Mr. Vikas Mali, AGP for the Respondent – State.
Ms Sharmila U. Deshmukh for the Respondent - MCZMA.
Mr. Parag Vyas for the Respondent - Union of India.
Dr. Milind Sathe, Sr. Advocate a/w. Ms Pooja Gera for Respondent
No.14.

**CORAM: DR. MANJULA CHELLUR, C.J.
AND M.S.SONAK, J.**

DATE : 13 NOVEMBER 2017.

PC.

- 1] Heard learned counsel for the parties.
- 2] The main challenges raised by instituting this public interest litigation are two fold:

(a) That the proposed expansion of JSEL Ispat Steel Project is covered under CRZ Notification 2011 and therefore, the expansion cannot be permitted unless, there are necessary compliances under Notification of 2011;

(b) That the project is being undertaken on lands which

belong to the State and by encroaching upon such lands. Therefore, the project cannot be permitted to proceed.

3] So far as the first issue is concerned, the Maharashtra Coastal Zone Management Authority has filed detailed affidavit. In the affidavit, it is pointed out that at present, what is in operation is Coastal Zone Management Plan prepared under CRZ Notification 1991. It is pointed out that this CZMP is prepared on the map of 1:25000 scale. On the basis of such CZMP, it is stated that at least a portion of the proposed expansion may be affected by the CRZ Notification. However, it is also stated that the draft CZMP as per CRZ Notification 2011 has also been prepared and is pending final approval. It is stated that this draft CZMP is on a scale of 1:4000. The CZMA is naturally non committal of the status of the project in the draft CZMP.

4] Mr. Milind Sathe, learned senior advocate for respondent No.14, i.e., JSW Ispat Steel Limited, however, submits that as per the draft Notification, the project cannot be construed as affected by CRZ Notification 2011. Mr. Sathe also refers to an affidavit filed on behalf of Union of India, which according to him, fortifies this position.

5] As of today, the objections have been called for in respect of draft CZMP prepared under CRZ Notification 2011. Therefore, it will not be appropriate for us to make any observation on the rival contentions. The parties are always at liberty to file their

objections and there is no need to presume that such objections will not be considered by the concerned authorities in accordance with law.

6] In facts of present case, we grant the petitioner specific liberty to file his objections before the concerned authorities within a period of one month from today. If such objections are indeed filed, the concerned authorities are directed to look into such objections together with all other objections as may have been received. For this reason, it is not necessary to keep this public interest litigation pending.

7] The second issue relates to allegation of encroachment on Government's land.

8] The Sub-Divisional Officer of the State Government, i.e., respondent No. 9 has filed an affidavit in pursuance of our directions. The averments in paragraph 3 to paragraph 10 of the affidavit-in-reply read as follows:

*“3. I say that in order to ascertain whether there is any encroachment on government land, this Respondent had directed vide its letter dated 21.11.2016, addressed to the Superintendent of Land Records, Raigad, to conduct the Survey and demarcate the boundaries of the land owned and which are in possession of Respondent Nos.14. Accordingly, the Deputy Superintendent of Land Records, Pen, has conducted the Survey on 12.4.2017, and submitted his report dated 29.4.2017. Hereto annexed and marked as **Exhibit-1** is copy of report dated 29.4.2017. In the said report of Deputy Superintendent of Land Record, Pen, it is stated that, land*

bearing Survey Nos.117/1,117/2, 118/1, 118/2, which are situated in village Dolivli, Tal. Pen, Dist. Raigad are Government lands i.e. of Public Works Department and that 4 illegal structures alongwith compound wall are being constructed on above mentioned lands. I say that Sub Divisional Officer vide its letter dated 7.11.2017 directed the Circle Officer, Vashi to further enquire about the ownership of the structures. Accordingly, the Circle Officer, Vashi has carried out further enquiry and submitted his report dated 7.11.2017. Hereto annexed and marked as **Exhibit -2** is copy of the report dated 7.11.2017. The report forwarded by the Circle Officer, Vashi, it was revealed that out of 4 structures, 3 structures belong to Shri Murlidhar Rambhau Karlekar, while 1 structure belongs to Shri Anil Hiranman Thakur. This Respondent, therefore, vide letter dated 30.10.2017 has informed the Public Works Department, about illegal structure standing on their lands and that appropriate steps to be initiated by them to demolish these 4 structures standing on their lands. Hereto annexed and marked as **Exhibit -3** is copy of the letter dated 30.10.2017 addressed by this Respondent to the office of Public Works Department.

4. I say that the Conveyor Belt connecting JSE Steel Ltd. Captive Jetty and JSE steel plant passes over Survey Nos. 118/1, 118/2, 119, 121/2, 122/2, 186/A, 186/B, 186/C and 190/1 and ownership of these lands is as follows:-

Sr. No	S.No.	Ownership of Land	Area Permitted
1	118/1	Public Works Department	
2	118/2	Public Works Department	2400 Sq.mtr.
3	119	Public Works Department	1824 Sq.mtr.
4	121	Public Works Department	
5	122	Public Works Department	4080 Sq.mtr.
6	186/B	Maharashtra Maritime Board	1453 Sq.mtr.

7	186/C	Maharashtra Board	Maritime	709 Sq.mtr.
8	190/1B	Government of Maharashtra		0.11.0 H.R.
9	186/A	Government of Maharashtra		2.54.0 H.R.

5. I say that the Public Works Department has leased out the Survey Nos.118/1, 118/2, 119, 121, etc. situated at village Dolvi, Tal. Pen, Dist. Raigad to JSW, as per the order of Chief Engineer, Regional Division, Mumbai, dated 26.8.2015 for the period of 5 years. This lease is for constructing Conveyor Belt connecting JSW Steel Ltd. captive Jetty and JSW Steel Plant. Hereto annexed and marked as **Exhibit-4** is copy of the order dated 26.8.2015 issued by Chief Engineer, Regional Division, Mumbai to Respondent No.14.

6. I say that as far as Survey Nos. 186/B and 186/C are concerned, these lands are owned by Maharashtra Maritime Board. I say that, Maharashtra Maritime Board has permitted Respondent No.14, to install cross country conveyor belt from existing captive jetty at Dharamtar Creek to JSW Steel Plant which is situated in village Dolvi, Tal. Pan, Dist. Raigad. I say that this cross country conveyor belt is used by Respondent No.14 for transportation of raw material from jetty to the plant of Respondent No.14. I say that the pillars which are embedded on Survey Nos.186/B, 186/C are on the land of Maharashtra Maritime Board, who has permitted Respondent No.14 to install this cross country conveyor belt. Hereto annexed and marked as **Exhibit - 5** is copy of the letter dated 9.5.2015, wherein permission is granted by Maharashtra Maritime Board to Respondent No.14.

7. I say that as far as land bearing Survey No. 190/1B is concerned, land admeasuring 0.11.0 H.R. is granted to Respondent No. 14 by Collector, Raigad which is situated at village Dolvi, Tal. Pen, Dist. Raigad. Hereto annexed and marked as **Exhibit-6** is copy of the order dated 31.1.1995, granted by Collector Raigad to Respondent No.14.

8. I say that an area admeasuring 2-54-0 H.R. out of land bearing Survey No. 186, having total area 6-69-0 H.R. situated at village Wave, Tal-Pen, Dist – Raigad had been leased to Nippon Denro Ltd. vide order dated 20.07.1995, for construction of Jetty for a period of thirty years, on certain terms and conditions. I say that the name of said Nippon Denro Ltd. was changed as Ispat Industries Ltd. in the year 2009. I further say that JSW Steel Ltd., the Respondent No.14, has acquired the said Ispat Industries Ltd. in the year 2011. Annexed hereto and marked as **Exhibit-7** is the copy of said lease order dated 20/07/1995. I say that the balance land of survey No.186/A is marshy land.

9. I say that after the receipt of application of the Petitioner dated 29/04/2011, the Panchanama dated 5/08/2011 was carried out stating about filling of the earth on Government land and construction of the Temple on Government land. I say that in order to verify said facts, Residential Naib Tahsildar, Pen, Circle Inspector, Washi and Surveyor of the office of Deputy Superintendent of Land Records, Pen, Tal-Pen, Dist-Raigad, carried out inquiry as per the directions of the Sub Divisional Office, Pen. I say that this report is submitted by Circle Officer, Vashi clarifying that Kasumata Temple is built on the land bearing Survey No.48/1 having area 1-01-40 H.R. in village Jui-Bapuji, Tal. Alibaug, which is owned by the JSW Steel Ltd. The said temple is managed by Kasumata Temple Trust having Registration No. A - 1285, Raigad. I further say that, it is stated in the said Panchanama that the temple is situated in the vicinity of Jui-Bapuji village, east side of Dharmatar Creek and near JSW Company wall compound and the approach road towards the temple has been made by the villagers to facilitate devotees. Hereto annexed and marked as **Exhibit – 8** is the copy of said Panchanama dated 8.11.2017.

10. I say that in the present Petition, the Petitioner has stated that before 5.8.2011 in village Dolvi, Tal. Pen, Dist. Raigad Survey Nos.117/1,117/2,118/1, 118/2, officers of Respondent No.14 have done filling by dumping earth and

mangroves have been damaged by filling on earth. Accordingly, a panchanama of these Survey numbers of the land is made by Sub Divisional Officer, Pen, Residential Naib Tahsildar, Pen and Circle Officer, Vashi on 5.8.2011, when it was revealed that, there was destruction of mangroves. Therefore, a complaint is filed under the provision of Section 15 of the Environment Protection Act, 1986 and Section 4 of Maharashtra Felling of Trees (Regulation) Act, 1964. The said Criminal Case was tried by JMFC Pen and said case has been disposed on 19.8.2014. The accused officers are acquitted by the Court”.

9] All the aforesaid averments have been denied by respondent No.14. They submit that there is no encroachment on Government lands and whatever is undertaken on Government lands is backed by necessary permissions from the concerned authorities.

10] At this stage, it will not be appropriate for us to go into these issues particularly since the affidavit filed by respondent No.9 indicates that the concerned authorities propose to examine the matter and if necessary, initiate action in accordance with law.

11] In addition to what is stated in the affidavit-in-reply of respondent No.9, in case, the petitioner seeks to point out any other instances, where according to him, there is encroachment on Government lands, the petitioner is at liberty to point out such instances to the concerned authorities. If, the petitioner lodges an additional complaint in this regard within a period of one month from today, the concerned authorities to look into such complaint

together with action as proposed and referred to in the affidavit-in-reply of respondent No.9.

12] In a public interest litigation, ordinarily it is not for this Court to examine issues of alleged encroachment in the first instance. No doubt, if the authorities who are enjoined to initiate action, fail to initiate action or, if there is a case of dereliction of duties, then, it is for this Court, to activate the concerned authorities into initiation of action in accordance with law and prescribed procedures. Since, respondent No.9 has stated in the affidavit that the concerned authorities propose to examine the matter and initiate action, there is no necessity to keep the present public interest litigation pending.

13] We make it clear that we have not examined the allegation of encroachment and therefore, we have not expressed any opinion on the merits of such issue. Accordingly, it will be open to the concerned authorities including respondent No.9 to take action in accordance with law and established procedures. We also add as a matter of abundant caution that any such action shall be consistent with principles of natural justice and fair play.

14] With aforesaid observations and directions, the present public interest litigation is disposed of.

(M.S.SONAK, J.)

(CHIEF JUSTICE)

IN THE HIGH COURT OF JUDICATURE AT BOMBAY
CIVIL APPELLATE JURISDICTION
WRIT PETITION NO. 1643 OF 2019

JSW Steel LimitedPetitioner

Versus

Union of India & ors. ...Respondents

Dr. Milind Sathe, Senior Advocate, a/w Mr. Saket Mane &
Mr. Sujit Chakrabarti, I/b Vidhi Partners, for the
Petitioner.

Mr. N. R. Bubna, for Respondent no.1.

Ms. Sharmila Deshmukh, for Respondent no.2.

Mr. Y. S. Khochare, for the State/Respondent.

CORAM: B. R. GAVAI &
N. J. JAMADAR, JJ

DATED: 11th February, 2019

PC:-

1. The Petitioner has approached this Court challenging the decision of Respondent no.2 in its meeting dated 28th December, 2018, thereby deferring the proposal of the Petitioner for construction of bridge on plot bearing gat no.93 at village Kharkaravi and gat no.94 in village Khamachela, Taluka Pen, Dist. Raigad. Vide the said decision, Respondent no.2 deferred the matter in view of the judgment and order of this Court dated 17th September, 2018 in PIL No.87 of 2006.

2. It should be noted that the Division Bench in the said order itself has directed thus:

“In view of applicability of public trust doctrine, the State is duty bound to protect and preserve

mangroves. The mangroves cannot be permitted to be destructed by the State for private, commercial or any other use unless the Court finds it necessary for the public good or public interest.”

3. It can be, thus, seen that the Division Bench itself has carved out a clause wherein a permission can be granted if it is necessary for the public good or the public interest.

4. This Court has examined certain matters and has granted permission. It has also granted permission in some matters, wherein, the Court found that the larger public interest demands so. However, in all such matters the permission has been granted only after the expert bodies like Ministry for Environment and Forest, Government of India, the Ministry of Environment and Forest, State of Maharashtra and Respondent no.2, herein, have granted the permissions. We find that it is for these bodies, who possess necessary expertise, to first find out as to whether the permission is necessary in the larger public interest or not. After application of mind, by such authorities with regard to grant or refusal of permission, the Court can consider, whether the larger public interest demands grant of such permission or not.

5. It appears that Respondent no.2, herein, desires to adopt reverse procedure.

6. In that view of the matter, Respondent no.2 to take decision on the proposal of the Petitioner within a period of four weeks from today.

7. Stand over to 18th March, 2019.

[N. J. JAMADAR, J.]

[B. R. GAVAI, J.]

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R.
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IN THE HIGH COURT OF JUDICATURE AT BOMBAY
CIVIL APPELLATE JURISDICTION

WRIT PETITION (ST.)NO.4894 OF 2020

JSW Dharamtar Port Pvt. Ltd.,
& Another .. Petitioners.
v/s.
Union of India & Others .. Respondents.

Dr. Milind Sathe, Sr. Advocate with Mr. Saket Mone, Mr. Bhushan Deshmukh, Mr. Subit Chakrabarti, Mr. Vishesh Kalra, Mr. Abhishekh Salian and Mr. Vishal Dushing i/b. Vidhi Partners, for the Petitioners.

Mr. Anil C. Singh, ASG with Mr. Rui Rodrigues and Mr. D. P. Singh, for Respondent No.1.

Ms. Sharmila Deshmukh, for Respondent No.2.

Mr. P P Kakade, GP with Ms. Nisha Mehra, AGP for Respondent No.4.

**CORAM: K.K.TATED &
ABHAY AHUJA, JJ.**

DATE : 9th JULY, 2020.

(THROUGH VIDEO CONFERENCING)

PC:-

Heard the learned Counsel for the parties. Rule. By consent of the learned Counsel for the parties, Petition is taken up for final disposal.

2 The Petitioners' have filed this Petition under Article 226 of the Constitution of India, seeking directions of this Court to the Respondent-Authorities to permit the Petitioners to execute the project being augmentation of the existing conveyor streams by construction of

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additional conveyor belts/ streams between the integrated steel plant of the Petitioner No.1 and the Dharamtar Jetty Facility in village Dolvi, District Raigad (the “project”).

3 It is submitted by the learned Sr. Counsel Dr. Sathe, appearing for the Petitioners that, the Petitioner No.1 is seeking to implement the project for the earlier approved and under execution *“Expansion of Existing Dharamtar Jetty Facility”* in village Dolvi, District Raigad.

4 The learned Sr.Counsel submits that, permission of this Court has been necessitated in view of the public trust doctrine invoked by this Court pursuant to the judgment dated 17th September, 2018 passed in Public Interest Litigation No.87 of 2006. . He has drawn our attention to the relevant paragraph No.83 (viii) which is quoted as under:-

“ In view of applicability of public trust doctrine, the State is duty bound to protect and preserve mangroves. The mangroves cannot be permitted to be destructed by the State for private, commercial or any other use unless the Court finds it necessary for the public good or public interest.”

5 It is also submitted on behalf of the Petitioners that condition (ii) of the recommendation granted by the Maharashtra Coastal Regulation Zone Management Authority viz.- Respondent No.2 on 16th February, 2019 as modified by the Respondent No.2 in its 142nd meeting held on 31st December, 2019 whereby the Respondent No.2 has directed the Petitioners’ to obtain leave of this Court prior to execution of the project as the site for the same is affected by the 50 mtrs. buffer zone of mangroves.

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6 The learned Sr. Counsel has also pains-takingly taken us through the following permissions and clearances obtained for the project by the Petitioners, which submissions can be summarized as under:-

Sr. No.	Date	Events	Exh. No. Page No.
I.	Permissions/ clearance obtained by the Petitioner:		
1	6 th Jan, 2011	Ministry of Environment and Forest (“MOEF”) published in the Gazette Coastal Regulation Zone Notification (“CRZ Notification”). As per the paras 3(i), 3(iv), (a) and para 4(i)(f) of the CRZ Notification, 2011 construction and operation of harbours, jetties, wharves, quays, slipways, ship construction yards, breakwaters, groynes and erosion control measures are permissible activities in the CRZ.	A/3.-60
2	24 th Feb. 2015	The Respondent No.2 recommended the proposed expansion of the existing jetty facility from the CRZ point of view.	B/61-64
3	26 th Nov. 2015	The Petitioner No.1 pursuant to recommendations from the Expert Appraisal Committee (“EAC”) in its meetings held on 23 rd - 24 th April, 2015 and 24 th - 26 th June 2015, was granted Environment and CRZ clearance for expansion of the existing jetty facility, under the provisions of the EIA Notification 2006 and CRZ Notification 2011.	C/65-71
4	26 th March, 2016	Pursuant to an application dated 9 th December, 2015, the Respondent No.1 issued amended Environment and CRZ clearance to the Petitioner No.1 for the expansion of the existing jetty.	D/72-73

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5	16 th February, 2019.	The proposal for the said project was presented before the Respondent No.2 seeking amendment in the Environment and CRZ clearance granted for expansion of the existing jetty. The Respondent No.2 recommended the proposal from the CRZ point of view subject to certain terms and conditions, where condition no.ii of the communication stipulated that no activity should be carried out in mangrove areas or its 50 meters buffer zone.	E74-75
6	12 th June, 2019	One of the conditions stipulated by the Respondent No.2 in their recommendation granted in their 128 th meeting was for the Respondent No.4 to assert the presence of mangroves in the proposed site of the said project. A site visit was carried out on 30 th April 2019 pursuant to which a report was filed by the Deputy Conservator of Forest, Mangrove Cell of the Respondent No.4's office. The report, inter alia stated that sparse mangrove trees were located 25 mtrs. away from the site which is protected by a boundary wall and also stating that the proposed site is located within the 50 meter buffer area of the mangrove forest.	E-1/76-81
7	20 th - 22 nd August, 2019	The proposal was thereafter considered by the EAC in their 43 rd meeting when certain further details were sought and the proposal was accordingly deferred.	F-82-84

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8	25 th November, 2019	The EAC in its 46 th Meeting, took into consideration the proposal along with the additional information which had been submitted by the Petitioner No.1 to the Respondent No.1 on 27 th July, 2019 and after consideration, the EAC recommended the proposed amendment to the Environment and CRZ clearance.	G-85-87
9	31 st December, 2019	In its 142 nd meeting held on the Respondent No.2, decided to modify condition no. ii in the recommendation dated 16 th February 2019 to the extent that no construction should be carried in mangrove areas but as regards the buffer zone, the proposed activity was recommended for permission to be carried out, subject to leave being obtained by the Petitioner No.1 from this Hon'ble Court.	H/88-91
10	10 th January, 2020	The proposal for amendment in the Environment and CRZ clearance granted to the Petitioner No.1 for expansion of the existing jetty was allowed and approved by way of amended Environment and CRZ clearance dated 10 th January, 2020 for the said project, by the Respondent No.1.	

7 The learned Sr. Counsel appearing for the Petitioners has with respect to the clearance/ permission dated 12th June, 2019 granted by Respondent No.4 submitted that the project will not involve mangrove tree cutting in the construction but is located within 50 mtrs., buffer area/ zone of the mangrove forest.

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8 He further submits that, the project would augment waterway transportation corridor of the Dharmtar Creek thereby reducing the load of the transportation on road transport infrastructure. He also submit that the project would also be of great socio-economic importance as it will create employment opportunities for local residents. He therefore submits that, with the permission granted by this Court, the Petitioners will be able to execute this project.

9 On the other hand, the learned Addl. Solicitor General Shri Anil Singh, has submitted with respect to the clearance by the Ministry of Environment, Forest and Climate Change dated 10th January, 2020 referred to above, that the Environment Clearance granted is, subject to the conditions mentioned in paragraph Nos.3 to 6 of the said clearance, which the Petitioners should be directed to comply with. He further submits to this Court that undertaking to this effect be given by the Petitioners. Subject to the above, he has no objection if the Court grants permission for the execution of the project.

10 The learned AGP, Shri Kakade appearing for the Respondent No.4 also submits that the Petitioners be directed to strictly comply with the conditions in the permissions/ clearances and submits that, the permission of this Court be subject to an undertaking by the Petitioners to strictly comply with the permissions/ clearances granted by the State Authorities.

11 Taking into consideration the aforesaid submissions and that the necessary permissions/ clearances have been granted to the Petitioners and taking into consideration the fact that this Court has

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already granted permission in respect of other similar projects of larger public importance, we are inclined to allow this Petition.

12 We, accordingly, pass the following order:-

(i) The Petition is allowed in terms of prayer clause (a), which reads thus:-

“ This Hon’ble Court be pleased to issue a Writ of Mandamus or any other appropriate writ or order or direction in the nature of mandamus under Article 226 of the Constitution of India, thereby directing the Respondent authorities to permit the Petitioners to execute the said project being augmentation of the existing conveyor streams by construction of additional conveyor streams between the the integrated steel plant of the Petitioner No.1 and the jetty facility of the Petitioners No.2 and grant leave as contemplated in condition no. ii of the recommendation granted by the Respondent No.2 on 16th February, 2019, as modified by the Respondent No.2, in its 142nd meeting held on 31st December, 2019, in terms of paragraph 83 (viii) of the Judgment and Order dated 17th September, 2018 in PIL No. 87 of 2006, in view of the public importance of the project.”

(ii) The aforesaid order is subject to the condition that the responsible officer of the Petitioners’ files an undertaking before this Court within a period of one week from the date of uploading of this order that, the Petitioners shall strictly comply with the conditions as imposed in the permissions/clearances granted by the various authorities such as- Ministry of Environment, Forest and Climate Change, Maharashtra Coastal Zone Management Authority, Chief Conservator of Forest (Mangrove Cell), Forest Department and other authorities – that have granted permission/ clearance.

(iii) No order as to costs;

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- (iv) This order will be digitally signed by the Private Secretary of this Court. Sheristedar of this Court is permitted to forward the Petitioner copy of this order by e-mail. All concerned to act on digitally signed copy of this order.

(ABHAY AHUJA,J.)

(K.K.TATED,J.)

**BEFORE THE NATIONAL GREEN TRIBUNAL
(WESTERN ZONE) BENCH, PUNE**

M.A.No.206/2016

In

APPEAL NO.30 OF 2016

CORAM:

HON'BLE MR. JUSTICE U.D.SALVI
(Judicial Member)

HON'BLE MR. RANJAN CHATTERJEE
(Expert Member)

1. SAMITA RAJENDRA PATIL

Age:- Adult, Occ: Social Activist,
Res: Sulba Sadan, Prabhu Ali,
Pen-402 107.

2. Kashinath Bhanudas Kothekar

Age:- Adult, Occ: Agriculturist,

3. Suman Lakhama Kothekar

Age:- Adult, Occ: Agriculturist,

4. Pundalik Naga Kothekar

Age:- Adult, Occ: Agriculturist,

5. Santosh Rama Kothekar

Age:- Adult, Occ: Agriculturist,

6. Mahadev Narayan Kothekar

Age:- Adult, Occ: Agriculturist,

7. Shashikant Somnath Patil

Age:- Adult, Occ: Agriculturist,

8. Sunil Harichandra Rodekar

Age:- Adult, Occ: Agriculturist,

9. Laxman Maya Patil (Rodekar)

Age:- Adult, Occ: Agriculturist,

10. Dilip Anant Kohekar

Age:- Adult, Occ: Agriculturist,

11. Moreshwar Lakhama Patil

Age:- Adult, Occ: Agriculturist,

12. Gopinath Tukaram Kothekar

Age:- Adult, Occ: Agriculturist,

13. Baliram Krushna Kothekar

Age:- Adult, Occ: Agriculturist,

14. Sunil Moreshwar Kothekar

Age:- Adult, Occ: Agriculturist,

15. Dnyaneshwar Rama Kothekar

Age:- Adult, Occ: Agriculturist,

16. Shivaji Damaji Kothekar

Age:- Adult, Occ: Agriculturist,

17. Lahu Moreshwar Kothekar

Age:- Adult, Occ: Agriculturist,

18. Pramod Krushna Keni

Age:- Adult, Occ: Agriculturist,

19. Pravin Bhaskar Mhatre

Age:- Adult, Occ: Agriculturist,

20. Vishwanath Balaram Keni

Age:- Adult, Occ: Agriculturist,

21. Vitthal Soma Keni

Age:- Adult, Occ: Agriculturist,

22. Narayan Gajanan Kothekar

Age:- Adult, Occ: Agriculturist,

23. Chandrabhaga Kashinath Kothekar

Age:- Adult, Occ: Agriculturist,

24. Rambhau Gajanan Kothekar

Age:- Adult, Occ: Agriculturist,

25. Naresh Harichandra Kothekar

Age:- Adult, Occ: Agriculturist,

26. Yashoda Harichandra Kothekar

Age:- Adult, Occ: Agriculturist,

27. Mahadev Bhanudas Kothekar

Age:- Adult, Occ: Agriculturist,

28. Shubhash Bhanudas Kothekar

Age:- Adult, Occ: Agriculturist,

29. Bhimsen Vithoba Mhatre

Age:- Adult, Occ: Agriculturist,

30. Sadashiv Ganapat Kothekar

Age:- Adult, Occ: Agriculturist,

31. Sachin Dharmaji Kothekar

Age:- Adult, Occ: Agriculturist,

32. Kamalakar Tukaram Patil

Age:- Adult, Occ: Agriculturist,

Nos. 2 to 33 all R/at: Village Kharmachela

Post-Gadab, Tal Pen, Dist. Raigad

Pin Code-402 107.

**Applicants/
Appellants****VERSUS****1. JINDAL STEEL WORKS LTD**Through Chairman Shri Sajjan Jindal,
Jindal Mansion, 5A, Dr. G. Deshmukh
Marg, Mumbai-400026.**2. JINDAL STEEL WORKS LTD**Through Managing Director,
Jindal Mansion, 5A, Dr. G. Deshmukh
Marg, Mumbai-400026.**3. SECRETARY,**

Ministry of Environment and Forest,

Paryavaran Bhavan, CGO Complex,
New Delhi-110 003.

4. SECRETARY,

Ministry of Environment, Forest and
Climate Change (I.A.Div)
Indira Paryavaran Bhavan,
Ali Ganj,
New Delhi-110 003.

.....**RESPONDENTS**

Counsel for Applicant (s):

Mr. Shriram S. Kulkarni Adv a/w Mr. Aniruddha S. Kulkarni Adv

Counsel for Respondent (s):

Mr. Saket Mone, Mr. Subit Chakraborty i/b Vidhi Partners, for
Respondent Nos. 1 and 2.

Mr. Milind M. Mahajan for Respondent Nos.3,4.

DATE: MAY 23rd, 2017.

ORDER

Heard. Perused Record.

1. This Application has been moved by the Applicants/Appellants for persuading this Tribunal to hold that the order dated 25th August, 2015 assailed in the Main Application granting Environment Clearance (EC) passed by Respondent No.3 Ministry of

Environment and Forest (MoEF) in favour of Respondent Nos. 1 and 2 –Jindal Steel Works Ltd (JSWL) for expansion of integrated steel plant from 5.0 MTPA to 10.00 MTPA, and the power plant from 300MW to 600MW (Gas Based) at Geethapuram, village Dolvi, Taluka Pen, District Raigad has not been communicated to the Applicants (herein) as contemplated by Section 16 of the National Green Tribunal Act, 2010, and as such, the Appeal has been filed within limitation and, alternatively, to condone the delay in filing the said Appeal.

2. The Applicant/Appellant No.1 claims to be a social activist spearheading the cause of the other Applicants / Appellants, who claim to be agriculturists holding and cultivating the agricultural lands at village Kharmachela, Post Gadab, Taluka Panvel, District Raigad.

3. According to Respondent Nos 1 and 2 JSWL clandestinely obtained permission to purchase the agricultural lands at village Kharmachela and other villages at Taluka Pen, district Raigad to establish and expand the said integrated steel and power plant behind their back from the Development Commissioner on 22.2.2013, and having come across a copy of the

sale-deed and Notice copy of the order passed by the Development Commissioner (DC) recently, the Applicants / Appellants filed Writ Petition No.12620 of 2015 before the Hon'ble High Court of Bombay, challenging the said order granting permission under Section 63(1) (A) of the Bombay Tenancy and Agricultural Lands Act, 1948. The Applicants/Appellants state that Respondent Nos. 1 and 2 have caused environmental pollution on account of their manufacturing activities; and destroyed Kharbandisti, allowing sea-water to enter into the agricultural fields, thereby rendering the said lands unfertile. The Applicants/Appellants, therefore, filed Application No.122 of 2015 before the Tribunal for the relief of restitution of environment damaged and for award of compensation to them for the loss incurred due to such environmental damage. The Applicants / Appellants further state that Misc. Application No.211 of 2015 has been moved by them in Application No.122 of 2015 for seeking interim relief in the nature of Temporary Injunction; and Respondent Nos. 1 and 2 have filed Misc. Application No.220 of 2015 in Application No.122 of 2015 for dismissal of the Main Application on the grounds of limitation and also for stay of hearing, pending the hearing and final decision

of PIL No.102 of 2013 pending before the Hon'ble High Court of Bombay.

It is the case of the Applicants/Appellants that the said proceedings, more particularly, Misc. Application 220 of 2015 filed by Respondent Nos. 1 and 2 and their replies to the main Application revealed that certain environmental permissions / clearances were possessed by Respondent Nos. 1 and 2; and therefore, the Applicants/Appellants issued Notice dated 18.11.2015 to the Respondent Nos.1 and 2 to supply copies of the permissions/clearances referred to hereinabove, and despite the said Notice being received, Respondent Nos. 1 and 2 did not supply copies of the permissions/clearances to the Applicants/Appellants; and therefore, having not received any Notice from Government of India or from any Authority to show cause as to why EC should not be granted in respect their lands, they submitted an Application on 18.1.2016 to Respondent No.3-MoEF to provide certified copies of EC granted in favour of Respondent Nos. 1 and 2 and despite such Application, there has been no response from the office of MoEF.

4. The Applicants/Appellants further submits that they are farmers, who are not acquainted with modern

techniques of information technology and do not understand English; and therefore, they could only manage to download EC in question with assistance of the knowledgeable person from the Website of Respondent-Company on 28 or 29th April, 2016; and thereafter it took time to get contents of the said EC understood in the context with the order of the Director of Industries dated 22nd February, 2013, annexed to the Appeal-Memo Ex. 'H'. (Pg.58); and only thereafter they could file the present Appeal.

5. The present Application was moved on behalf of the Applicants/Appellants when in response to the Notice before admission, Respondent Nos. 1 and 2 as well as MoEF appeared before the Tribunal and pointed out that as per the order dated 11th July, 2016, the parties were under obligation to explain the delay caused in preferring the Appeal throwing challenge to EC dated 25th August, 2015 before us in time.

6. The Respondent No.3-MoEF responded to the case of the Applicants/Appellants with affidavit in replies dated 13.1.2017, 9.2.2017, and 26.4.2017 (19.4.2017). The Respondent Nos. 1 and 2 craved leave to refer to Record and Proceedings in the Main Application No.122 of 2015 in order to point out the facts regarding

‘communication’ of the impugned EC to the Applicants/Appellants much before the filing of the present Appeal, and consequent un-condonable delay caused in preferring the said Appeal. One of the Applicants- Applicant No.14 - Sunil Moreshwar Kothekar filed affidavit in reply dated 4th November, 2016, 18th May, 2017 as well as additional affidavit dated 22nd May, 2017.

7. The order dated 25th August, 2015 assailed in the present Appeal is appealable under Section 16(h) of the National Green Tribunal Act, 2010 and Section 16 – proviso thereto covers the issue of limitation in the following words:

“16. Tribunal to have appellate jurisdiction.—any person aggrieved by:

(a) xxx xxx xxx xxx

(b) xxx xxx xxx xxx

(c) Xxx xxx xxx xxx

(d) Xxx xxx xxx xxx

(e) Xxx xxx xxx xxx

(f) Xxx xxx xxx xxx

(g) Xxx xxx xxx xxx

(h) ***an order made, on or after the commencement of the National Green Tribunal Act,2010, granting environmental clearance in the area in which any industries, operations or recesses or class of industries, operations and processes shall not be carried out or shall be carried out subject to certain safeguards under the Environment (Protection) Act,1986 (20 of 1986).***

(i) xxx xxx xxx xxx

(j) xxx xxx xxx xxx

may, within a period of thirty days from the date on which the order or decision or direction or

determination is communicated to him, prefer an appeal to the Tribunal:

Provided that the Tribunal may, if it is satisfied that the appellant was prevented by sufficient cause from filing the appeal within the said period, allow it to be filed under this section within a further period not exceeding sixty days.

8. Law thus requires any person aggrieved by an order referred to under clause (a) to (j) of Section 16 of the NGT Act, 2010 to prefer an appeal against such order within a period of thirty (30) days from the date on which the order is communicated to him. The 'communication' of the order thus triggers the period of limitation prescribed under the law.

9. The parties before us have locked their horns in a struggle to substantiate their respective cases regarding 'communication' of the impugned EC to the Applicant/Appellants, who claim to be aggrieved by the order and tried to explore the rationale expounded in the Judgment delivered by the Principal Bench of NGT, New Delhi in Save Mon's case (Judgment dated 14th March, 2013 delivered in **M.A.No.104 of 2012 in Appeal No.39 of 2012: Save Mon Region Federation and Anr Vs Union of India & Ors**) to gather strength in their struggle.

10. Learned Counsel appearing on behalf of the Applicant/Appellants submitted that, the impugned EC was never communicated to the Applicant/Appellants

in the manner required to be communicated by law, particularly, in terms of exposition of law found in Save Mon's case (Supra) and the Applicant/Appellants – agriculturists not acquainted with the modern techniques of information technology could only access the impugned EC, when the same was downloaded with assistance of a knowledgeable person from the website of Respondent-Company on 28-29th April, 2016 and thereafter it took time to get contents of the said EC understood in the context with the order of the Director of Industries dated 22nd February, 2013.

11. Learned Counsel appearing on behalf of the Applicant/Appellants added that, time was thus consumed firstly in realizing that the impugned EC affected their lands and only thereafter they could, being aggrieved by the said order, file the Appeal on 19th May, 2016 well within thirty (30) days from the date on which they could access the impugned EC on 28-29th April, 2016, and therefore, the Appeal is well within period of limitation.

12. Learned Counsel appearing on behalf of Respondent No.3-MoEF submits that the impugned EC dated 25.8.2015 was uploaded on the same date on which it was issued. He invited our attention to the averments made at para-5 of the affidavit dated 9th

February, 2017 and para-3,4 and 5 of the affidavit dated 26th April, 2017 (19th April, 2017). He conceded that he had no other material in support of his contention that the impugned EC was placed in the public domain i.e. uploaded on its website on the date on its issue.

13. Learned Counsel appearing on behalf of the Applicant/Appellants point out from the copies of screenshots dated 8.2.2017, at Annexure R/2 to the affidavit dated 19th February, 2017 filed by the MoEF that on that day only Terms of Reference (ToR) in relation to the impugned EC was available on 8.2.2017. He further submits that, the screenshots at Annexure 1/1 to the affidavit dated 26th April, 2017 revealed that ToR and EC files in respect of the impugned EC were available on the website of MoEF on 28.3.2017. He further placed before us copy of online EC query form in respect of the ECs made by the Applicant/Appellants as on 15.2. 2017 annexed to its rejoinder dated 18th May, 2017 and submitted that, nowhere response to query made in respect of ECs granted in the year 2016 in the State of Maharashtra for all categories showed impugned EC in the list of ECs generated as a result of such query. He submits that, the impugned EC was not available on the website of

MoEF even as on 15.2.2017 and therefore, in terms of rationale expounded in the Judgment of Save Mon's case (supra) there was no 'communication' of the impugned EC to the public at large much less the Applicant/Appellants.

14. Learned Counsel appearing on behalf of the Applicant/Appellants further submits that the principle laid down in the Judgment of Save Mon's case in clear terms mandated that limitation would start running and shall be computed as referred to in para-19 of the said Judgment, and in the present case, neither MoEF nor Project Proponents (PP)- Respondent Nos. 1 and 2 had discharged their obligations to place the EC in question in the public domain as stated in para-19 of the said Judgment, and therefore, there was no 'communication' of the impugned EC to the Applicant/Appellants.

15. Learned Counsel appearing on behalf of Respondent Nos. 1 and 2 explained with reference to the screenshots produced by MoEF and responses to the website queries made in respect of EC status by the Applicant/Appellants that the Applicant/Appellants had produced responses to the queries made with reference to the proposals received on or after 4th July, 2014, which queries ought to have been made with

reference to the proposals received up to 3rd July, 2014; and if such query was made with reference to the proposals received up to 3rd July, 2014, they could have easily got knowledge of the fact that EC in question was on the website of MoEF. It is correct that EC status queries made by the Applicant/Appellants were made with reference to the proposals received on or after 4th July, 2014, whereas in case of EC in question the proposal was dated 6.12.2012 belonging to the category of proposals' received up to 3rd July, 2014.

16. Learned Counsel appearing on behalf of Respondent Nos. 1 and 2 produced before us screenshots of dialogue box used for accessing the requisite information from the website of MoEF. For the category 'A' projects the dialogue box showed two (2) approaches (i) for proposal received on or after 4th July, 2014 and another for the proposals received up to 3rd July, 2014. Evidently, the EC status query form produced by the Applicant/Appellants showed that query was made in respect of the proposals received on or after 4th July, 2014. Obviously, response to it could not have generated the information regarding the impugned EC for which the proposal was moved prior to 4th July, 2014 i.e. on 6.12.2012. Learned Counsel appearing on behalf of Respondent Nos. 1 and 2 further

pointed out that one Mr. Dwarkanath Namdeo Patil, resident of village Shahabaj Taluka Alibaug, District Raigad has preferred Appeal No.59 of 2015 against the order granting EC in the present Appeal on 23.9.2015, and he had made a statement in the present Appeal that he had obtained a copy of EC in question for filing Appeal No.59 of 2015 from Gram-Panchayat Shahabaj, Taluka Alibaug, District Raigad vide order dated 10th March, 2016.

17. Keeping aside this fact, learned Counsel appearing on behalf of Respondent Nos. 1 and 2 submitted that, 'communication' of the impugned EC was made to the Applicant/Appellants in *Personam*. He invited our attention to the record and proceedings in Original Application No.122/2015 and pointed out therefrom that both the Additional Collector, Raigad and Respondent No.1 in their affidavits in replies dated 26.11.2015 and 21.1.2016 respectively referred not only to the EC in question, but also filed copies of the same along with the said replies at Ex.7 and Ex.B to the affidavits in replies respectively. Thus, he submits that, the Applicant/Appellants who are Applicants in O.A.No.122/2015, who had moved M.A. No.211 of 2015 therein, were duly communicated with copies of the impugned EC on 22.1.2016, the day of filing the replies

before the Tribunal and, therefore, the Appeal filed on 9.5.2016 is squarely barred by limitation prescribed under Section 16 of the NGT Act, 2010.

18. Countering these submissions, learned Counsel appearing on behalf of the Applicant/Appellants submitted that, placing of such copies on record in the proceedings initiated by the Applicant/Appellants does not amount to putting it in the public domain, as contended in para-19 of the Judgment in Save Mon's case, and therefore, 'communication' as required under the law is not complete, and limitation would therefore not trigger from the date as contended by Respondent Nos. 1 and 2. He further submits that, the impugned EC ought to have been placed in the public domain with all particulars of the lands in respect of which the impugned EC was granted, as this could only have made the concerned party 'aggrieved' so as to actuate him to take steps for filing the said Appeal.

19. In this context, learned Counsel appearing on behalf of the Applicant/Appellants invited our attention to para-14 and 16 in the Judgment of Save Mon's case to point out that sufficient knowledge of the basic facts constituting grounds of the order should be imparted factually and fully to the person to whom 'communication' is made to constitute 'communication'.

20. It is correct that in Save Mon's case the Principal Bench of NGT, comprising of five (5) Members concluded the case with the following directions:

“10. The date on which the order of Environmental Clearance is communicated to the public at large, shall be the date from which the period of limitation shall reckon as communicating the order, in other words, shall mean putting the order in the public domain in its complete form and as per the mode required under the provision of the NGT Act of the Regulation 2006. The limitation shall start running and shall be computed as referred to in Para 19 of the judgment. Where different acts by different stakeholders are complied with at different dates, the earliest date on which complete ‘communication’ is carried out, shall be the date for reckoning of limitation”.

21. This direction is in relation to the ‘communication’ of order of EC to the public at large, and the date from which period of limitation is to be reckoned in that regard under Section 16 of the NGT Act, 2010. Para-19 in the Judgment of Save Mon's case reads as under:

19. The limitation as prescribed under Section 16 of the NGT Act, shall commence from the date the order is communicated. As already noticed, ‘communication’ of the order has to be by putting it in the public domain for the benefit of the public at large. The day the MoEF shall put the complete order of Environmental Clearance on its website and when the same can be downloaded without any hindrance or impediments and also put the order on its public notice board, the limitation be reckoned from that

date. The limitation may also trigger from the date when the Project Proponent uploads the Environmental Clearance order with its environmental conditions and safeguards upon its website as well as publishes the same in the newspapers as prescribed under Regulation 10 of the Environmental Clearance Regulations, 2006. It is made clear that such obligation of uploading the order on the website by the Project Proponent shall be complete only when it can simultaneously be downloaded without delay and impediments. The limitation could also commence when the Environmental Clearance order is displayed by the local bodies, Panchayats and Municipal Bodies along with the concerned departments of the State Government displaying the same in the manner afore indicated. Out of the three points, from which the limitation could commence and be computed, the earliest in point of time shall be the relevant date and it will have to be determined with reference to the facts of each case. The applicant must be able to download or know from the public notice the factum of the order as well as its content in regard to environmental conditions and safeguards imposed in the order of Environmental Clearance. Mere knowledge or deemed knowledge of order cannot form the basis for reckoning the period of limitation”.

22. Para-19 begins with a clear statement that limitation as prescribed under Section 16 of the NGT Act, 2010, shall commence from the date of order is communicated and then proceeds to deal with ‘communication’ to public at large by placing in in the public domain.

23. Though it is the case of Respondent Nos. 1 and 2 that they had placed the impugned EC on its website

on 31st August, 2015 and was downloadable on that day, and has also sent copies to the local authorities namely, District Collector, Tehsildar, Sub-Divisional Magistrate, Zilla Parishad, Taluka Panchayat Samittee, Group Gram Panchayat, local MLA, Panchayat Samittee, Nagar Palika vide letter dated 29.8.2015 vide Exh.1/3,1/4 and 1/5, the Respondent No.1-Project Proponent did not publish EC giving details thereof in the newspapers as prescribed under Regulation 10 of the Environmental Clearance Regulations, 2006. There is no such material evincing the fact of placing the impugned EC on its website and making it downloadable on such day placed before us by the MoEF.

24. However, in the instant case, there is material to suggest that copies of the EC in question were placed on record in the proceedings M.A.No.211 of 2015 in O.A No.122 of 2015 initiated by the Applicants/Appellants on 22.01.2016. The Paragraphs-16 and 17 of the Judgment in **Save Mone's** case being relevant in this context are reproduced herein below:

“16. Upon analysis of the above, it is clear that “communication” is made by one and received by another. It requires sufficient knowledge of the basic facts constituting the ‘communication’. The action of communicating is precisely sharing of knowledge by one with another of the thing

communicated. 'communication', particularly to the public, has to be by methods of mass 'communication', like satellite, website, newspapers etc. 'Communicated' is a strong word. It requires that sufficient knowledge of basic facts constituting the grounds of the order should be imparted fully and effectively to the person.

17. The expression 'is communicated to him', thus, would invite strict construction. It is expected that the order which a person intends to challenge is communicated to him, if not in personam then in rem by placing it in the public domain. "communication" would, thus, contemplate complete knowledge of the ingredients and grounds required under law for enabling that person to challenge the order. 'Intimation' must not be understood to be 'communication'. "communication" is an expression of definite connotation and meaning and it requires the authority passing the order to put the same in the public domain by using proper means of 'communication'. Such 'communication' will be complete when the order is received by him in one form or the other to enable him to appropriately challenge the correctness of the order passed".

25. Primarily, therefore, the order needs to be communicated to a person who intends to challenge the same. It is only when the 'communication' is not done or cannot be in *Personam*, it needs to be done in *Rem* by placing it in the public domain. In the instant case, copies of EC in question were made available to the Applicants/Appellants by placing the same on record in the proceedings initiated by them and copies were furnished to the Applicants/Appellants. It is not

necessary in such a case to place EC in question in the public domain as contemplated in para-19 of the Judgment in Save Mon's case to trigger limitation under Section 16 of the NGT Act, 2010. Besides to communicate the said EC in question to the Applicants/Appellants as aforesaid, the replies filed by Respondent Nos. 10 and 11 as well as Respondent Nos. 1 and 2 in M.A.No.211 of 2015 sufficiently indicate that EC in question was in respect of the lands of the Applicants/Appellants, particularly, when a copy for permission to purchase the agricultural lands dated 22nd February, 2013 is found annexed to the reply filed on behalf of Respondent Nos. 10 and 11.

26. Learned Counsel appearing on behalf of Respondent Nos. 1 and 2 further pointed out that the expansion of project in question being category 'A' project, had to undergo exercise of public hearing, wherein the local residents were made aware of spread of the project with reference to their agricultural lands and EC in question being a result of such process its copy effectually and fully imparted sufficient knowledge of basic facts constituting grounds of the order. In view of such averments, we are persuaded to hold that the 'communication' of EC in question to the Applicants/Appellants was complete when the copies of

EC were placed on record in M.A.No.211/2015 in O.A. No.122 of 2015 initiated by them. In our opinion, the period of limitation in the present case, therefore, started running from the date of such 'communication', and therefore, the present Appeal having been filed belatedly on 19.5.2016 (i.e. after ninety (90) days of communication of the order) is barred by limitation.

M.A.No.206/2016 is therefore rejected.

Appeal No.30/2016 therefore cannot be entertained and stands rejected accordingly with no order as to costs.

....., **JM**
(Justice U.D.Salvi)

....., **EM**
(Ranjan Chatterjee)

PUNE
DATE: MAY 23rd, 2017.

hkk

MAHARASHTRA COASTAL ZONE MANAGEMENT AUTHORITY

Tel. No. : 2285 2696
 e-mail : mahamcзма@gmail.com
 Website : <http://mczma.maharashtra.gov.in>

No. CRZ -- 2014 / CR - 41 /TC-4
 Office of the -
 Maharashtra Coastal Zone Management Authority,
 Environment Department, Room No. 217(Annex),
 Mantralaya, Mumbai- 400 032.
 Date: 24th February, 2015

To,
 The Director (IA-III),
 Coastal Zone Regulation,
 Government of India,
 Ministry of Environment, Forests & Climate Change,
 Indira Paryavaran Bhavan,
 Jor Bagh Road
 New Delhi - 110 003 (INDIA)

Subject: Proposed Expansion of the Dharamtar Jetty facilities at village Dharamtar, Dist: Raigad by M/s. JSW Dharamtar Port Pvt Ltd

Sir,

The proposal regarding "Proposed Expansion of the Dharamtar Jetty facilities at village Dharamtar. Dist: Raigad by M/s. JSW Dharamtar Port Pvt Ltd" was considered in the 92nd & 96th Meeting of the Maharashtra Coastal Zone Management Authority (MCZMA) held on 19th July 2014 & 17th January, 2015 respectively.

2. Project proponent (PP) presented the proposal before the Authority. The Authority noted the followings:

- a) M/s. JSW Dharamtar Port Pvt Ltd has proposed expansion of the Dharamtar Jetty facilities from existing 331.5 m to 1750 m. long in order to improve the efficiency, productivity and quality of the jetty services for the increasing demands of raw material.
- b) Thus, the total cargo to be handled would increase from present 9.69 MTPA to 33.95 MTPA.
- c) The existing berthing facility at Dharamtar is for handling of barges; originally designed for barge sizes of 2500 DWT, presently handles barges up to 3700 DWT are handled at the berths. There are 4 berths (Berth no 1 to 4) totalling to about 331.5 m in one alignment.
- d) Cargo to be handled include IBRM, CBRM, Fluxes, clinker, cement, HR coil, sheets, CR coils, other steel products, slag and containers amounting to about 33.95 MTPA.
- e) Allied essential facilities includes additional barge unloaders, material handlers, jetty conveyors, yard conveyors, stacker cum reclaimers, cross country conveyors, covered godown, mechanized stackyard, silos and other facilities such as green belt, fire fighting, storm water drainage, workshops, administrative offices, rail siding, port communication and navigational aid
- f) Capital dredging is about 6 million cum and maintenance dredging is about 2 million cum. Reclamation is about 100 Ha



- g) The existing captive JSW Dharamtar jetty is located on the right bank of Amba River. The proposed facilities are located at Latitude: 18°42' 19" North & Longitude: 73° 1' 42" East. The jetty is located at about 18.0 nautical miles from Jawaharlal Nehru Port and 18.0 nautical miles from Mumbai Port. The jetty is accessible by road and is 68 km from Mumbai.
3. PP further presented that NIO, Goa has carried out CRZ demarcation study along with preparation of CRZ map in 1:4000 scale. As per NIO report, project falls in CRZ I & III area. Said report of NIO mentions that:
- As per the land use map, the proposed and surrounding area comprise of agriculture/barren lands, patches of mangroves, small creeks, built up area and terrestrial vegetation.
 - Along the Ambariver, 100m set back line from the HTL is considered as per the CRZ notification 2011. Along the other small creeks, 100m or width of the creek is considered for the set back line.
 - In the northern side of JSW Dharamtar Jetty, around 20m wide mangroves are noticed all along the river. Beyond the mangroves towards the land ward side, most of the area is agricultural lands/fallow lands.
4. The Authority noted the proposal was earlier deliberated in 92nd meeting of the MCZMA held on 19th July, 2014, wherein the Authority sought certain information from PP. Accordingly, M/s. JSW Dharamtar Port Pvt Ltd vide letter dated 22.9.2014 submitted its reply to MCZMA
5. Authority noted that PP has submitted EIA/ EMP wherein the studies regarding marine ecology, distribution of benthic organism, air & water & Noise environment is done. Hydrological studies of Dharamtar creek has also been submitted. As per said report, impact on flow hydrodynamics and the river morphology would be limited to the blocking effect of the piles on the river water course.
6. The Authority noted that Public hearing was conducted on 22.5.2014 by MPCB and minutes of the public hearing approved & duly signed by the Chairman has been submitted to MoEF, New Delhi by MPCB vide letter no. BO/JD(WPC)/PH/B-2312 dated 16.6.2014 along with all required documents and audio/video shooting of the public hearing.
7. The Authority noted as per para 3.(i) (a), 3.(iv)(a), 4(i) (f) development of jetty & foreshore facilities is permissible activities.
8. The Authority noted that as per para 7(e) of EIA Notification, 2006, project falls in category 'A'. The Authority further noted that as per provisions of CRZ Notification, 2011 amended on 28th Nov, 2014, those activities listed under category 'A' in the EIA Notification, 2006 and permissible under the said notification requires clearance from MoEF, New Delhi.
9. The Authority after detailed discussion and deliberation decided to recommend the project from CRZ point of view to MoEF subject to strict compliance of following conditions:

Specific conditions:



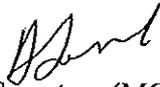
- i. The proposed construction should be carried out strictly as per the provisions of CRZ Notification, 2011 (as amended from time to time) and guidelines/ clarifications given by MoEF from time to time.
- ii. Environment Management Plan should be implemented effectively during construction and operation phase of the project.
- iii. Prior High Court permission should be obtained, if the project activities involve clearing /destruction of mangroves due to the project and if the project activities fall in 50 mangroves buffer zone area.
- iv. It should be ensured that there is no hindrance to natural flow of tidal water of the creek.
- v. Sewage and effluent generated should be treated in treatment plant conforming to prescribed standards under E(P) rules, 1986. STP should be located other than CRZ I area and ETP should be located outside CRZ area.
- vi. PP should ensure that livelihood activities of the fishermen communities should not be hampered due to project activities.
- vii. Untreated sewage and effluent should not be discharged into the coastal water body. Project proponent should take all effective steps for protection of environment.
- viii. All other necessary permissions from different competent authorities shall be taken before commencement of the proposed activities.
- ix. Compliance of the above conditions should be ensured by the concerned Project Incharge by name.

General Conditions:

- i. In the event of any change in the project profile, a fresh reference shall be made to the MCZMA.
- ii. The sand dune, if any, on the site should not be disturbed in any way.
- iii. The MCZMA reserves the right to revoke this recommendation, if any, of the conditions stipulated are not complied with to the satisfaction of the MCZMA.
- iv. The MCZMA or any other competent authority may stipulate any additional conditions subsequently, if deemed necessary, for environmental protection, which shall be complied with.
- v. A copy of the recommendation letter shall be marked to the concerned local body/ local NGO, if any, from whom any suggestion/ representation has been received while processing the proposal.
- vi. The environmental safeguard measures should be implemented in letter and spirit.
- vii. Six monthly monitoring reports should be submitted to the MCZMA in soft and print format.
- viii. This recommendation will be valid for 5 years from the date of issue of recommendation for commencement of construction & operation. No construction should be initiated till final permission from MoEF is obtained to the project.
- ix. The recommendation from CRZ point of view is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this recommendation does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.



10. The Agenda item and minutes along with the proposal are enclosed herewith for necessary action in the matter. The copy of this letter is also available on the website of MCZMA i.e. <http://mczma.maharashtra.gov.in>.


Member Secretary (MCZMA)

Copy for information to:

1. Principal Secretary, Environment & Chairman, MCZMA, Environment Department, Room No, 217 (Annex), Mantralaya, Mumbai
2. Director, Western Zone (Bhopal), Kendriya Paryavaran Bhavan, Link Road No. 3, Bhopal- 462 016
3. Collector Raigad District, At & P.O. - Alibag, District – Raigad, Pin - 402 201
4. Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. CineMax Theatre, Sion (E), Mumbai-400 022
- ✓ 5. M/s. JSW Infrastructure Ltd., 5A, Dr. G.A. Deshmukh Marg, Peddar Road, Mumbai – 400 026
6. Select File (TC-4)

F. No. J-11011/76/2013-IA II (I)
 Government of India
 Ministry of Environment, Forest and Climate Change
 (I.A. Division)

Indira Paryavaran Bhawan
 Jor Bagh Road, Ali Ganj,
 New Delhi - 110003
 E-mail: satish.garkoti@nic.in
 Tele ph.: 011: 24695316

Dated: 24th August, 2015
 25th

To

✓
M/s JSW Steel Ltd.
 Thapar House, 3rd Floor
 Eastern Side of Central Wing,
 124, Janpat Lane,
 New Delhi-110001

Email: Nil; Fax No.- 91 11- 43724333

Subject: Expansion of Integrated Steel Plant from 5 MTPA to 10 MTPA and Power Plant from 300 MW to 600 MW (Gas Based) of M/s JSW Steel Limited at Geethapuram, Village Dolvi, Tehsil Pen, District Raigarh in Maharashtra – Environmental Clearance regarding

Sir,

This has reference to your letter No. Nil dated 6th February, 2015 along with copies of EIA/EMP report seeking Environment Clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The ToR to the project was awarded by MoEFCC vide letter dated 28th May, 2013 for preparation of EIA/EMP report. The proposed project activity is listed at S.No. 3(a) in primary metallurgical industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry).

2. The Ministry of Environment, Forest and Climate Change (MoEFCC) has examined your application for EC for the aforesaid project. It is noted that M/s JSW Steel Limited (JSWSL) proposes to expand the integrated steel plant to 10.0 MTPA from existing 5.0 MTPA at Geetapuram, Dolvi in Raigad District of Maharashtra. The existing steel plant is based on the Direct Reduced Iron (DRI) - Blast Furnace-CONARC-Ladle Furnace & VD/VOD - Continuous Casting - Rolling Mill (CSP) route. The expansion would be based on proven BF - BOF route. Expansion of 3.0 MTPA Steel Plant to 5.0 MTPA and 300 MW Captive Power Plant is under implementation. The site falls between Longitude - 73°00'00" - 73°05'00" E, Latitude - 18°39'00" - 18°45'00" N. Land comprises Dolvi, Jui Bapuji & khar Karavi Villages. Pen is the nearest railway station at about 8 km (aerial distance) on the Konkan Railway line connecting Mumbai-Mangalore along the West Coast of India. The nearest airport is Mumbai (national and international) located about 80 km in the north direction from the proposed project site. The company has about 1200 acres of land in its possession for its existing operating integrated steel plant complex of 5.0 MTPA capacity. Some of the proposed additional capacities are proposed to be setup within the existing plant

and some need relocated by acquiring additional 600 acres land. There is no national park, biosphere reserve, sanctuary, habitat for migratory birds, archaeological site, defence installation etc. within 10 km of the periphery of the plant boundary. The total project cost is estimated to be Rs. 17,000 Cr. The CSR budget is Rs 225 cr for 5 MTPA project and Rs 425 Cr for 10 MTPA project. The requirement of total manpower for proposed expansion project will be about 5,000. However, the proposed Integrated Steel Plant will additionally generate more than 15,000 indirect secondary and tertiary employment.

3.0 The production facilities after the expansion is given below: (Expansion of JSWSL (existing 5 MTPA to 10 MTPA))

Sl. No.	Technological facility	Units / Facilities (EC accorded) under 5 MTPA	Proposed facilities under 5 to 10 MTPA	Total Plant Capacity AT 10 MTPA
1.	DRI (Gas based Mega Module)	2.0 MTPA (by augmentation)	2.0 MTPA	4.0 MTPA
2.	Pellet Plant	4.0 MTPA	4.0 MTPA	8.0 MTPA
3.	Coke Ovens including By-product plant	2.0 MTPA	2.5 MTPA	4.5 MTPA
4.	Sinter Plant	2.8+ 3.2 MTPA	8.0 MTPA	14.0 MTPA
5.	Blast Furnace including Pig casting	3.6 MTPA by modification of existing Blast Furnace	4.5 MTPA	8.1 MTPA
6.	SMS (CONARC)	5.2 MTPA (By Augmenting the existing facilities)	-	5.2 MTPA
7.	SMS -BOF	-	6.0 MTPA	6.0 MTPA
8.	Ladle Furnace(LF)	2x200 t +205 t	2X300 t	2x200 t + 205 t 2X300 t
9.	VD/VOD & RH-TP	1x200 t + 1x205 t	2x300 t	1x200 t + 1x205 t 2x300 t
10.	CSP(HRC Coil) Thin Caster-cum-Hot Strip Finishing Train	3.5 MTPA (By Augmenting)	-	3.5 MTPA
11.	Conventional Slab Caster	2x1 strands (3.68 MTPA)	2x2 strands (5.72 MTPA)	Total 6 strands (9.4 MTPA)
12.	Billet Caster	-	1x6 Strands	6 strands (1.5 MTPA)

Sl. No.	Technological facility	Units / Facilities (EC accorded) under 5 MTPA	Proposed facilities under 5 to 10 MTPA	Total Plant Capacity AT 10 MTPA
13.	Plate Mill	1.5 MTPA	-	1.5 MTPA
14.	CRM (Hot Rolled Skin Pass + Cold Rolled Full Hard Coil + Hot Rolled Pickled & Oiled Coil)	1.0 MTPA	1.5 MTPA	2.5 MTPA
15.	Galvanizing Line (Cold Rolled Steel Strips, Hot Dip Zinc Coated Full Hard)	0.6 MTPA	-	0.6 MTPA
16.	Electrical Steel CRGO line	0.4 MTPA	-	0.4 MTPA
17.	Tin Plate Mill	0.4 MTPA	-	0.4 MTPA
18.	Colour Coating Plant	0.5 MTPA	-	0.5 MTPA
19.	Lime /Dolo Plant	1800 TPD	1800 TPD	3600 TPD
20.	Oxygen Plant	4100 TPD	3500 TPD	7600 TPD
21.	Hot Rolling Mill with shearing & slitting line	-	5.0 MTPA	5.0 MTPA
22.	Bar Mill	-	1.4 MTPA	1.4 MTPA
23.	Slag & Clinker Grinding Unit	-	10 MTPA	10 MTPA
24.	Captive Power Plant	300 MW	300 MW	600 MW (based on surplus gases of BF & Coke Oven) +RLNG
25.	Township	-	150 acres	150 acres

The list of raw materials required for the project:

Sr. No	Description	Raw Material Requirements at (10 Mtpa)		
		Quantity	Source	Mode of transport
A	Iron bearing raw materials (IBRM)			
1	C.L.O.	0.38	NMDC/Imported	Rail/ Sea
2	Iron Ore Fines	19.72	Imported	Sea
	Total	20.1		
B	Fluxes			
1	Lime stone (40-80 mm)	1.30	Imported	Sea

2	Dolomite (40 to 80 mm)	0.72	Imported	Sea
3	Lime stone (Sinter grade)	0.71	Imported	Sea
4	Dolomite (Sinter grade)	1.55	Imported	Sea
5	Quartzite	0.24	Rajasthan	Rail
Total		4.52		
C	Carbon bearing raw material (CBRM)			
1	a) Hard Coking coal 60%	3.72	Imported	Sea
	b) Semi Hard Coking coal 40%	2.59	Imported	Sea
2	PCI Coal	1.25	Imported	Sea
3	Coke breeze	0.18	Indigenous	-
4	Anthracite (Low VM, Ash)	0.23	Imported	Sea
Total		8.02		
Grand Total		32.64	All Figures are in Million ton	

4.0 The total water requirement for the 10 MTPA steel plant, 600 MW power plant and township will be about 116 MLD. At present JSW ISPAT Steel Ltd., Dolvi Works has been allocated about 56 MLD water from River Amba, Nagothane, K.T.Bandhara and consent for 30 MLD has been obtained. Application is in progress for the balance amount. M/s JSW has permission for drawl of 53.66MLD from Irrigation Dept., Govt. of Maharashtra. Water drawl from River Amba sanctioned. Permission for additional 65MLD water is under consideration of Govt. of Maharashtra. It was further stated that the region receives heavy rainfall of about 3000mm annually and surplus water is available in the Dam.

5.0 The wastewater generated from the indirect cooling circuit would be routed through the cooling tower and pressure filter for recycling purpose. The wastewater generated from the coke ovens will be treated in a bio-oxidation plant to reduce the level of phenolic compounds, oil & grease and cyanide. The treated wastewater will be reused in the system. The wastewater of gas cleaning plants of blast furnace and steel melt shop containing suspended solids will be clarified in the wastewater treatment plant. The clarified water will be recycled to the waste gas cleaning units. Similarly, the wastewater coming out from the continuous casting machine will be treated to remove scale and oil and the treated water will be recycled after cooling. The plant sanitary waste water will be treated in sewage treatment plant and the treated water will be used for dust suppression and maintenance of plant green belt.

6.0 De-dusting system with bag filters at all dust generating locations in all the units have been installed to control the dust emissions as well as in the BF cast house and SMS and dust emission levels at work zone are within prescribed limits. For the expansion project (5 MTPA), which is under various stages, secondary fugitive dust emission system will be installed at the BF Cast House, SMS and all other units.

7.0 Public hearing was conducted on 28.01.2014 at Pen Education Society's Jaikisan Vidya Mandir and Higher Medium School at Wadhkal, Taluk. Pen, Dist. Raigad, Maharashtra. The issues raised during the public hearing inter alia include measures for pollution control, information on gas holder installed in the project, infrastructure development for water supply in the neighbouring areas, repair of roads, road traffic, development of fishing activity, repair of kharland Bund, arrangement for village candidates sent for training in Bellary, more employment for the locals etc.

8.0 The matter was considered in the 31st EAC meeting held on 8th – 9th January, 2015, when it was decided to visit the site. Accordingly, site visit was conducted on 9th March, 2015 by a sub-committee. Based on the site visit report of the Sub-Committee and its recommendation the proposal was further considered by the Expert Appraisal Committee (Industry) during its 35th meeting held on 26th – 27th March, 2015 and recommended the project for environment clearance subject to stipulation of the following specific conditions and other mitigative measures and conditions for environmental protection:

9.0 The Ministry of Environment, Forest and Climate Change (MoEFCC) on the basis of the aforesaid recommendations of the EAC (I), hereby decided to grant Environmental Clearance to the project under the provisions of EIA Notification dated 14th September 2006, subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITION:

- i. The project proponent should install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.
- ii. The PP should ensure treatment of effluent particularly from Blast Furnace (BF) and Coke Oven plant. The plant should be designed to meet the cyanide standards stipulated by MoEFCC under EPA Act 1986.
- iii. The commitment made by the PP for plantation of the green belt to the tune of 655 acres should be expedited. Three rows of green belt, 12 – 15 meters wide, all along the periphery of the plant should be planted.
- iv. The CSR plan as submitted by the PP in the area of health care, rural infrastructure development, education, sports and cultural activity, Swachh Bharat Abhiyan with respect to the earlier projects and the ongoing project at Dolvi site are very slow in implementation. The CSR activities should be implemented expeditiously and simultaneously with the implementation of the project, and annual report on CSR activity should be submitted to the Ministry.
- v. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs. The proponent should prepare a detailed CSR Plan for every next 5 years for the existing-cum-expansion project, which includes village-wise, sector- wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head should be created and the annual capital and revenue expenditure on various activities of the Plan should be submitted as part of the Compliance Report to RO, at Bhopal. The details of the CSR Plan should also be uploaded on the company website and should also be provided in the Annual Report of the company.

- vi. No development should be done on the creek-ward side of the land. Land area between HTL to 100 mts or width of the creek, whichever is less, on the landward side should be kept free from any type of development.
- vii. Full utilization of slag both BF and SMS should be implemented. The details should be submitted along with 6 monthly compliance report.
- viii. No waste water will be discharged outside the plant boundary during normal operation. In case it become necessary to discharge effluent meeting norms fit to the marine environment, permission of the relevant authority should be obtained.
- ix. No untreated effluent should be reused for any process.
- x. Measures should be taken to reduce PM levels in the ambient air. Stack of adequate height & diameter with continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. should be provided to keep the emission levels below 50mg/Nm³ and installing energy efficient technologies in the Plant.
- xi. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.
- xii. Dust suppression system and bag filters should be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.
- xiii. Water consumption should not exceed as per the CREP standard prescribed for the steel plants. Additional water, if any, required for the plant project operations should be met from rainwater stored in rainwater harvesting structures.
- xiv. Rainwater harvesting scheme should be prepared so that the rainwater can be collected, re-used and may be used for ground water recharge. The concrete drains should be de-silted and regular supervision of the areas should be carried out so that blocking of drains may be avoided for quick discharge of rainwater. Efforts should further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement.
- xv. All the effluents should be treated and reused for dust suppression/green belt development. No effluent should be discharged and 'zero' discharge should be adopted.
- xvi. Full utilization of fly ash should be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2010. All the fly ash should be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding should be submitted to the Ministry's Regional Office at Bhopal.

- xvii. Hazardous materials required during construction phase and in plant operations should be stored properly as per the regulations and reused/recycled as per the E(P)A Rules.
- xviii. Vehicles and construction machinery are properly maintained to minimize the exhaust emission as well as noise generation to meet prescribed standards.
- xix. Risk and Disaster Management Plan along with the mitigation measures should be prepared and implemented.
- xx. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.
- xxi. All the commitments made to the public during public hearing/public consultation should be satisfactorily implemented and adequate budget provision should be made accordingly.
- xxii. All the permanent workers should be covered under ESI Scheme. The company should have the provision for treatment of its workers at the local Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test, Audiometry, Spirometry etc. should be conducted amongst the employees of the Company.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Maharashtra Pollution Control Board and the State Government.
- ii. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- iii. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM₁₀, PM_{2.5}, SO₂ and NO_x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Nagpur and the SPCB/CPCB once in six months.
- iv. Industrial wastewater should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater should be utilized for plantation purpose.
- v. The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime). h

- vi. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- vii. The company should develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- viii. The project proponent should also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- ix. Requisite funds should be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forests and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein should be submitted to the Regional Office of the Ministry at Nagpur. The funds so provided should not be diverted for any other purpose.
- x. A copy of clearance letter should be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter should also be put on the web site of the company by the proponent.
- xi. The project proponent should upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and should update the same periodically. It should simultaneously be sent to the Regional Office of the MOEFCC at Nagpur. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects should be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xii. The project proponent should also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Nagpur / CPCB / SPCB should monitor the stipulated conditions.
- xiii. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, should also be put on the website of the company along with the status of compliance of environmental conditions and should also be sent to the respective Regional Office of the MOEFCC at Nagpur by e-mail.
- xiv. The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of

Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>. This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one should be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Nagpur.

- xv. Project authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.
10. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner should implement these conditions.
12. The above conditions should be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.


 21/8/2015
 (Dr. Satish C. Garkoti)
 Scientist 'F'

Copy to:-

1. The Secretary, Department of Environment, Govt. of Maharashtra.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, 110 032.
3. The Chairman, Maharashtra Pollution Control Board, "Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, Road Number 8, Jay Bharat Mata Nagar, Air Force Quarters, Sion, Mumbai, Maharashtra 400022".
4. The Additional Principal Chief Conservator of Forests (C) Ministry of Environment Forest And Climate Change Regional Office Regional Office (WCZ), Nagpur
5. Guard File / Record File/Monitoring file.

 (Dr. Satish C. Garkoti)
 Scientist 'F'

F.No.11-79/2013-IA.III
Government of India
Ministry of Environment, Forest & Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road,
New Delhi - 3

Dated: 26th November, 2015

To

The Vice President (Projects),
M/s JSW Dharamtar Port Pvt Ltd,
JSW Centre, Bandra-Kurla Complex, Bandra (E),
Mumbai – 51 (Maharashtra)

Sub: 'Expansion of Dharamtar Jetty facility' in Village Dolvi of District Raigad (Maharashtra) by M/s JSW Dharamtar Port Pvt Ltd - Environmental and CRZ Clearance – Reg.

Sir,

This has reference to your letter No. MH/DPPL/EIA/2015/02 dated 21.02.2015 and subsequent letter dated 04.06.2015, submitting the above mentioned proposal to this Ministry for grant of Environmental and CRZ Clearance in term of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 and Coastal Regulation Zone (CRZ) Notification, 2011 under the Environment (Protection), Act, 1986.

2. The proposal for **'Expansion of Dharamtar Jetty facility' in Village Dolvi of District Raigad (Maharashtra) by M/s JSW Dharamtar Port Pvt Ltd**, was considered by the Expert Appraisal Committee (EAC) in the Ministry for Infrastructure Development, Coastal Regulation Zone, Building/ Construction and Miscellaneous projects, in its meetings held on 23rd – 24th April, 2015 and 24th – 26th June, 2015.

3. The details of the project, as per the documents submitted by the project proponents (PP), and also as informed during the above said EAC meetings, are reported to be as under:-

- (i) The project was accorded TOR vide letter No. F.No.11-79/2013-IA-III dated 05.01.2015.
- (ii) The present proposal involves expansion of Dharamtar Jetty facility in village Dolvi of District Raigad (Maharashtra).
- (iii) JSW Dharamtar Port Limited (JSWDPL) is a Special Purpose Vehicle under the aegis of JSWIL, to handle the cargo of the JSW Steel Limited, Dolvi works. JSWDPL has proposed to expand the existing 331.5m jetty to 1750m. This is proposed for the improvement of efficiency, productivity and quality of jetty services for increasing demands of raw material. Thus, the project envisages increase in cargo handling from existing 9.69 MTPA to 33.95 MTPA.
- (iv) The existing captive jetty is located on the right bank of Amba River. The proposed facilities are to be located at latitude 18^o 42' 19" North and 73^o 1' 42" East. The site is well connected by road and railways. Mumbai-Goa national Highway (NH-17) passes on the east side of the site. The nearest railway station Pen is about 8 kilometres and the nearest Mumbai airport is 80 kilometres away. The

jetty is located at about 18.0 nautical miles from Jawaharlal Nehru Port and 18.0 nautical miles from Mumbai Port. The jetty is about 68 km from Mumbai by road.

(v) The existing berthing facility at the Dharamtar Jetty is for handling of barges; originally designed for barge sizes of 2500 DWT, presently handles barges up to 3700 DWT at four berths namely the Berth No. 1 to Berth No. 4 having total length of about 331.5m in one alignment. The barge size after expansion would be 8,00DWT.

(vi) The existing approach channel from the sea in the north to the jetty, through the Dharamtar creek is about 3.0m and 135m wide. It is proposed to deepen the 26 km long channel -5.0m by dredging to enable navigation of 8000 DWT barges. Capital dredging of about 6 million m³ and maintenance dredging of 2 million m³ is estimated. It has been proposed to use the dredged material for reclamation, if suitable and other material will be disposed at designated disposal ground off Mumbai Port as suggested by Central Water and Power Research Station (CWPRS), Pune. It is proposed to reclaim an area of 10 hectares behind the berth. It would be used for grade-raising for Port back-up.

(vii) The cargo to be handled at the proposed product will include Iron Bearing Raw Material (IBRM), Carbon Bearing Raw material (CBRM), Fluxes, clinker, cement, HR coil, sheets, CR coils, other steel products, slag and containers amounting to about 33.95 MTPA.

(viii) The expansion of the cargo receipt facility is expected in three phases. Phase-I consists of the rehabilitation of the existing Jetty. Refurbishing of the unloading equipment and MHS would also be undertaken during this phase. The new material handlers (2 Nos) would be reinforced to improve the efficiency and overall productivity of the berth.

(ix) In Phase-II, expansion of jetty to the north by 718.5m would be implemented immediately. This would be accomplished by deploying 04 new barge un-loaders with average capacity of 1,000 TPH (each). A new cross country conveyor would be provided and stock yards would be created with 02 Nos. of stacker cum re-claimers. The new conveying system shall also be put in place.

(x) In the Phase-III, dismantling and rebuilding of existing berths and expansion of berths by another 700m further to north would be implemented and that would make the total length of jetty to 1750m. This new Jetty would be provided with 2 new barge unloaders. After the implementation of phase-III, 6 barge unloaders would be working on 06 berths so as to handle 33.95 MTPA of import and export cargo.

(xi) The construction of the jetty would be carried out deploying 'Cantilever construction method' also known as 'Cantilever Gantry Method'. The method produces a minimum disturbance to the existing ground or sea bed.

(xii) **SCZMA Approval:** The Maharashtra Coastal Zone Management Authority (MCZMA) has recommended the project vide their letter No. CRZ-2014/CR-41/TC-4 dated 24.02.2015.

(xiii) The NIO, Goa has carried out CRZ demarcation study along with preparation of CRZ map in 1: 4,000 scale. As per this report, the project falls in CRZ-I and CRZ-III area. The proposed jetty along with Amba River is in CRZ-I, part of proposed stack yard and other port associated facilities including conveyor belt are in CRZ-I and CRZ-III. In the northern side of the Jetty, around 20m wide mangroves are noticed all along the river, which would be left untouched since the proposed activities are 50m or more away from the mangroves. Only approach to berths will pass over the mangroves. The structures do not block any light penetration and thus mangroves can thrive and grow below. Beyond mangroves towards the landward side, most of the area is agricultural lands/ fallow lands. As per the land

use map, the proposed and surrounding areas comprise of agriculture/barren lands, patches of mangroves, small creeks, built up area and terrestrial vegetation.

(xiv) As per the EIA report wherein studies regarding marine ecology, distribution of benthic organism, air and water, noise environment are done, impact on flow hydrodynamics and the river morphology would be limited to the blocking effect of the piles on the river water course.

(xv) No breakwater/groin/training bunds are proposed as part of the project. The configuration of the proposed jetty does not obstruct flow of water to the creek system around the project.

(xvi) About 800 KLD water will be required for full operation which will be met from the existing allocation of JSW Steel Ltd from K.T. Bandhara, Nagothane.

(xvii) Wastewater generated will be 40 KLD which will be treated in the STP of 50KLD capacity. Treated water will be reused for flushing, gardening and sprinkling in the jetty premises.

(xviii) Total solid waste generated at the site is estimated to be around 0.3 tonnes/day. The waste will be segregated into biodegradable, non-biodegradable and recyclables and disposed as per the norms to the authorized vendors and recyclers.

(xix) 33% of the land will be reserved for green belt development.

(xx) **Investment/Cost:** The total cost of the project is Rs. 1550 crores.

(xxi) **Public Hearing:** Public Hearing was conducted on 22.05.2014 by Maharashtra Pollution Control Board at Wadkhal, Raigad. The major issues raised during the public hearing are employment, tree plantation, medical facility etc.

(xxii) **Employment potential:** The project is expected to generate the employment opportunity.

(xxiii) **Benefits of the project:** The local people will be benefited through CSR activities. Socio-economic condition of the local people shall improve. Green belt around the project will improve the aesthetic of the area and revenue generation to the state government.

4. The EAC, after detailed deliberations on the proposal in its meeting held on 24 – 26 June, 2015, has recommended the project for grant of Environmental and CRZ Clearance. As per the recommendations of EAC, the Ministry of Environment, Forest & Climate Change hereby accords Environmental and CRZ Clearance to the above-mentioned project '**Expansion of Dharamtar Jetty facility' in Village Dolvi of District Raigad (Maharashtra) by M/s JSW Dharamtar Port Pvt Ltd**, under the provisions of the EIA Notification, 2006 and CRZ Notification, 2011 and amendments thereto and circulars issued thereon and subject to the compliance of the specific and general conditions mentioned below:

A. SPECIFIC CONDITIONS:

- (i) 'Consent to Establish' shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (ii) No mangroves shall be cut during project implementation and utmost care shall be taken to conserve them. Also, in view of the likely impact of the proposed construction methodology, National Center for Sustainable Coastal Management (NCSCM) may carry out a study for suggesting measures for mangrove protection.
- (iii) There shall be no disposal of dredged material into the sea, but to be ^{be} reused for reclamation, and for shore enrichment based on its characteristics, as committed.

- (iv) Total water requirement of 800 KLD after the proposed expansion, shall be met from the existing source of K.T. Bandhara, MIDC. There shall not be any abstraction from any other surface water body or ground water to avoid depletion of the existing local water resources. The wastewater from washing and other construction activities shall be treated to meet the prescribed norms and shall be reused. There shall no discharge of untreated effluents into the marine environment.
- (v) Adequate scour protection shall be applied to prevent damage due to scouring and bathymetric survey will be carried out to ensure that any accretion creates no risk to navigation/sediment transport at the Jetty.
- (vi) The PP shall undertake the environmental monitoring programme, as committed in the EIA study. This shall also include continuous measurements of underwater vibration and noise levels by installing appropriate measuring instruments immediately at Piles and thereafter at a distance of 2 Km from that Piles.
- (vii) As committed under the EIA study, necessary arrangements for the treatment of effluents and solid wastes shall be made and it shall be ensured that the untreated effluents and solid wastes are not discharged into the water/CRZ area.
- (viii) Ships/barges shall not be allowed to release any oily bilge waste or ballast water in the sea. Any effluents from the Jetty which have leachable characteristics shall be segregated and recycled/disposed as per MPCB guidelines.
- (ix) Location of DG sets and other emission generating equipment shall be decided keeping in view the predominant wind direction so that emissions do not effect nearby residential areas. Installation and operation of DG sets shall comply with the guidelines of CPCB.
- (x) All the mechanized handling systems and other associated equipments such as hoppers, belt conveyors, stacker cum reclaimers shall have integrated dust suppression systems. Dust suppression systems shall be provided at all transfer point.
- (xi) A windshield of appropriate height shall be provided around the coal/other bulk stack yard for control of wind generated dust.
- (xii) All the conditions stipulated by the MCZMA vide their letter No. CRZ-2014/CR-41/TC-4 dated 24.02.2015, shall be strictly complied with.
- (xiii) No product other than permitted under the CRZ Notification, 2011 shall be stored in the CRZ area.
- (xiv) The project affected people, if any; due to the land acquisition shall be rehabilitated or compensated as per the norms laid down by the concerned agency of State/ Central Government.
- (xv) The quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.
- (xvi) All the mitigation measures suggested in the EIA report and the marine environment study of CWPRS, Pune shall be implemented. The compliance for

each of these measures shall be submitted to concerned SPCB and R.O. of this Ministry along with six monthly compliance reports.

- (xvii) There shall be no drawal of ground water in CRZ area.
- (xviii) Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- (xix) It shall be ensured by the Project Proponent that the activities does not cause disturbance to the fishing activity, movements of fishing boats and destruction to mangroves during the construction and operation phase.
- (xx) All the recommendation of the EMP including the dust control at storage and handling of cargos shall be complied with letter and spirit. The Project Proponent may be asked to submit all the EMPs mentioned in the EIA report and during the subsequent presentations made before the EAC shall be submitted in a tabular format with budgetary provisions and the same shall be submitted to Ministry and with a copy to R.O., MoEFCC within two months.
- (xxi) The Project Proponent shall take up and earmark adequate fund for socio-economic development and welfare measures as proposed under the CSR Programme. This shall be taken up on priority.
- (xxii) The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.
- (xxiii) The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.
- (xxiv) The responses/commitments made to the issues raised during public hearing shall be complied with in letter and spirit. A hard copy of the action taken shall be submitted to the Ministry.
- (xxv) The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report so also during their presentation to the EAC.
- (xxvi) The PP shall engage NCSCM, Chennai to carry out the monitoring at their own cost to ensure proper implementation of the construction methodology and construction of the Jetty without disturbing the existing mangroves, natural resources and other environmental safeguards.

(xxvii) Corporate Social Responsibility:

- a. The Company shall have a well laid down Environment Policy approved by the Board of Directors.
- b. The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/ deviation/violation of the environmental or forest norms/ conditions.
- c. The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
- d. To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

sd

B. GENERAL CONDITIONS:

- (i) Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality.
- (ii) Full support shall be extended to the officers of this Ministry/ Regional Office at Nagpur by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
- (iii) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Nagpur regarding the implementation of the stipulated conditions.
- (iv) Ministry of Environment, Forest and Climate Change or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (v) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
- (vi) In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment, Forest and Climate Change.
- (vii) The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.
- (viii) A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/ representation has been made received while processing the proposal..
- (ix) A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.

5. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.

6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

7. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental and CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest and Climate Change

at <http://www.envfor.nic.in>. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Nagpur.

8. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

9. Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.

10. Any appeal against this Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

11. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

12. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEFCC, the respective Zonal Office of CPCB and the SPCB.

13. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEFCC by e-mail.

SKS
26/11/2015
(S. K. Srivastava)
Scientist E

Copy to:

- 1) The Secretary, Department of Environment, Govt. of Maharashtra, Mantralaya, Mumbai - 32.
- 2) The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
- 3) The Chairman, Maharashtra Coastal Zone Management Authority, Room No.217 (Annexe), Mantralaya, Mumbai -32
- 4) The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Points, 3rd & 4th floor, Opp. Cine Planet, Sion Circle, Sion (E), Mumbai-400 022.
- 5) Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 1
- 6) Guard File.
- 7) Monitoring Cell.

SKS
26/11/2015
(S. K. Srivastava)
Scientist E

F. No. 11-79/2013 - IA III
Government of India
Ministry of Environment, Forest & Climate Change
(I.A. Division)

Indira Paryavaran Bhawan
 Aliganj, Jorbagh Road,
 New Delhi -110003

E-mail : aditya.narayan@nic.in
 Telefax: 011: 24695398
 Dated: 26th March, 2016

To,

The Vice President (Projects),
 M/s JSW Dharamtar Port Pvt. Ltd.
 JSW Centre, Bandra- Kurla Complex, Bandra (E),
 Mumbai-51 (Maharashtra)

E-mail: rasmiranjan.patra@jsw.in; santosh.nair@jsw.in; Phone: 022-42861000;

Subject : Expansion of Dharamtar Jetty facility at Dolvi of District Raigad (Maharashtra) by M/s JSW Dharamtar Port Pvt Ltd – Amendment in Environmental and CRZ Clearance.

Ref.: (i) Ministry's letter of even no. dated 26th November, 2015.

(ii) Your online proposal no. IA/MH/MIS/34131/2015 dated 9th December, 2015.

Sir,

This is in continuation of this Ministry's letter dated 26th November, 2015 regarding the above mentioned subject, wherein following points are mentioned:

At S.N. (iii) of para 4.0 of the Environmental Clearance and CRZ Clearance dated 26th November, 2015: "*There will be no disposal of dredged material into the sea. But to be reused for reclamation, and for shore enrichment based on its characteristics, as committed.*"

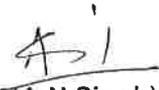
2.0 It was noted that CWPRS, Pune has carried out mathematical model study to determine the impact of the waterfront development. As per study report, it is reported that dumping ground is suitable for disposal of excess soil from the dredging. The granular and rocky materials could be used for landfilling and grading. Dumping location of the dredge spoil indicating the location of the disposal ground in the geographical coordinates viz. Disposal Ground No. 1 : 18°52'29.96"N, 72°52'17.98" E and Disposal Ground No. 18°45'11.97"N, 72°48'24.0" E. In this regard, PP has submitted the copy of corrigendum no MMCE/2015 dated 22.12.2015 issued by CWPRS, Pune showing locations of dumping grounds alongwith geographical co-ordinate.

3.0 The proposal was considered by the Reconstituted Expert Appraisal Committee (Infrastructure-2) in its 1st meeting held during 21st – 22nd December, 2015 and the Committee recommended the proposal for the following amendment:

- i) As proposed, the granular and rocky materials shall be used for landfilling and grading. Other dredge materials shall be disposed at designated disposal ground off Mumbai Port as suggested by Central Water and Power Research Station (CWPRS), Pune indicating

the location of the disposal grounds in the geographical coordinates viz. Disposal Ground No. 1 : 18°52'29.96"N, 72°52'17.98" E and Disposal Ground No. 18°45'11.97"N, 72°48'24.0" E".

- 4.0 The Ministry accepts the recommendation of the Expert Appraisal Committee (Infrastructure - 2) for amendment in the existing environmental clearance subject to compliance of specific conditions and general conditions.
- 5.0 All other conditions will remain unchanged.
- 6.0 In future, in case of change in the scope of the project, the company shall obtain fresh environmental clearance.
- 7.0 This issues with the prior approval of the Competent Authority.


(A N Singh)
Scientist D

Copy to:-

- 1.0 The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 400 032
- 2.0 The Chief Conservator of Forests (Central), Kendriya Paryavaran Bhavan, Link Road No.3, Bhopal-462016.
- 3.0 The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4.0 The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, Mumbai-400 022.
- 5.0 Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jorbagh Road, New Delhi.
- 6.0 Guard File/Monitoring File/Record File.


(A N Singh)
Scientist D

MAHARASHTRA COASTAL ZONE MANAGEMENT AUTHORITY

Tel. No. : 22029388
 E-mail : dir1.mev-mh@nic.in
 Website: <https://mczma.gov.in/>

No. CRZ – 2018 / CR – 293 / TC - 4
 Office of the -
 Maharashtra Coastal Zone Management Authority,
 Environment Department, 15th floor,
 New Administrative Building, Mantralaya,
 Mumbai- 400 032.
 Date: 16th February, 2019

To,
 Director (IA-III),
 Coastal Zone Regulation,
 Government of India,
 Ministry of Environment, Forests & Climate Change,
 Indira Paryavaran Bhavan, Jor Bagh Road,
 New Delhi - 110 003

Subject: Amendment in CRZ clearance for the project of Dharamtar Jetty facility at village Dolvi, Dist. Raigad by M/s. JSW Dharamtar Port Pvt Ltd

The proposal regarding amendment in CRZ clearance for the project of Dharamtar Jetty facility at village Dolvi, Dist. Raigad by M/s. JSW Dharamtar Port Pvt Ltd was considered in 128th meeting of Maharashtra Coastal Zone Management Authority (MCZMA) held on 20th December, 2018.

2. The Authority noted that, the proposal is for amendment in CRZ clearance for the project of Dharamtar Jetty facility at village Dolvi, Dist. Raigad. The MoEF&CC, New Delhi vide letter dated 26th November, 2015 has granted the EC and CRZ clearance for the expansion of the Dharamtar Jetty facility. The PP stated that construction of two elevated conveyor galleries, one housing six conventional pipe conveyors and another housing a bi-directional simultaneous conveyance pipe conveyor in a stacked manner. The PP further presented that around 4000 m of the conveyor galleries are proposed and will pass on the western side of the steel plant, taking radial diversions to feed the steel plant units, such as coke oven, sinter plant, pallet plant, blast furnace, SMS shop, cement plant etc. The PP further presented that new transmission line is also proposed. The PP presented that said facilities are in CRZ III area as per the CRZ map of NCSCM, Chennai. The PP further stated that proposed activities are situated beyond 50 m mangrove buffer zone. The Authority instructed PP to submit the undertaking stating the same. The PP has submitted Rapid EIA for the proposal. The Authority noted that conveyor belt and transmission line activities are permissible as per provisions of the CRZ Notification, 2011 with prior clearance from the MoEF, New Delhi. However, said activities should not be proposed in mangroves or its 50 m buffer zone.
3. The Authority further noted the site inspection report dated 20.08.2016 in Application no. 122/2015 has been filed in NGT, Pune. The Authority felt that mangrove cell shall take cognizance of the said report.
4. After detailed discussion and deliberation, the Authority decided to recommend the proposal to MoEF, New Delhi subject to compliance of following conditions:

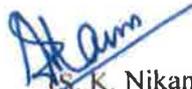
Specific conditions:

- i. The proposed activity should be undertaken strictly as per the provisions of CRZ Notification, 2011 (as amended from time to time) and guidelines/ clarifications given by MoEF from time to time.
- ii. No activity shall be carried out in mangroves or its 50 m buffer zone, as per 17th Sep, 2018 High Court order in PIL 87/2006.
- iii. PP to ensure that only after obtaining all required clearances, activities should be constructed.
- iv. The PP to obtain the NoC from the Mangrove Cell, confirming that activities are not in mangroves or its 50 m buffer zone. Mangrove cell may make site visit before granting NoC. Mangrove cell shall take cognizance of earlier clearances, court matters and complaints, if any in the matter.
- v. The PP to implement the Environment Management Plan for the proposed activities.
- vi. All other required permission from different statutory authorities should be obtained.

General Conditions:

- i. The MCZMA reserves the right to revoke this recommendation, if the conditions stipulated are not complied with to the satisfaction of the MCZMA or Environment Department.
- ii. The MCZMA or any other competent authority, may stipulate any additional conditions subsequently, if deemed necessary, for environmental protection, which shall be complied with.
- iii. A copy of the recommendation letter shall be marked to the concerned local body/ local NGO, if any, from whom any suggestion/ representation has been received while processing the proposal.
- iv. This recommendation will be valid for 5 years from the date of issue of recommendation for commencement of construction & operation.
- v. The environmental safeguard measures should be implemented in letter and spirit.
- vi. The recommendation from CRZ point of view is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this recommendation does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.

5. The agenda item and minutes are also available on the website of MCZMA i.e. <http://mczma.gov.in>.


A. K. Nikam)
Director, Environment
& Member Secretary, MCZMA

Copy for information to:

1. **Principal Secretary**, Environment & Chairman, MCZMA, Environment Dept, Room No. 217, Annexe Building, Mantralaya, Mumbai.
2. **Member Secretary**, Maharashtra Pollution Control Board (MPCB), 3rd and 4th Floor, Kalpataru Point, Sion, Mumbai
3. **District Collector Raigad**
4. **Addl. Principal Chief Conservator of Forests**, Mangrove Cell, Wakefield House, 302, SS Ram Gulam Marg, Ballard Estate, Fort, Mumbai
5. **M/s. JSW Dharamtar Port Pvt Ltd**, JSW Centre, Bandra Kurla Complex, Bandra (East), Mumbai - 400 051
6. **Select File- TC 4**

F. No. 11-79/2013-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 10th January, 2020

To,

The Vice President,
M/ s JSW Dharamtar Port Pvt Ltd,
JSW Centre, Bandra-Kurla Complex, Bandra (E),
Mumbai - 51 (Maharashtra)

Subject: 'Expansion of Dharamtar Jetty facility' in Village Dolvi of District Raigad (Maharashtra) by M/s JSW Dharamtar Port Pvt Ltd - Amendment in Environmental and CRZ clearance - reg.

Sir,

This has reference to your online proposal No. IA/MH/MIS/34131/2015 dated 05.04.2019 submitted to this Ministry for amendment in Environmental and CRZ Clearance granted to M/s JSW Dharamtar Port Pvt Ltd for 'Expansion of Dharamtar Jetty facility' in Village Dolvi of District Raigad (Maharashtra), in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986 and CRZ Notification, 2011.

2. The proposal for grant of amendment in Environmental and CRZ Clearance to the above referred project was considered by the Expert Appraisal Committee (Infra-2) in its 41st meeting held during 27-29 May, 2019, 43rd meeting held during 20-22 August, 2019 and 46th meeting held during 25-26 November, 2019. The project proponent gave a detailed presentation on the salient features of the project and informed the following:

- (i) JSW Dharamtar Port Private Limited (JSWDPPL) operating a Jetty facility on the right bank of Amba river/Dharamtar creek, is a Special Purpose Vehicle under the aegis of JSW Infrastructure Limited, to handle the inbound raw material and outbound products of cargo of the JSW Steel Limited and its affiliated industries being its only and staple materials gateway.
- (ii) EC and CRZ Clearance for the expansion of Dharamtar Jetty facility has been obtained from MoEF&CC, New Delhi vide letter dated 26.11.2015 and amended on 26.03.2016. The EC and CRZ Clearance included covered, elevated, cross-country conveyors connecting the Jetty/Jetty backup to the steel plant at-arms-length. The Jetty facility comprising quay of 331.5 m (approx. 8.5 MTPA handling capacity) is undergoing expansion to 1750 m (approx. 33.95 MTPA handling capacity) to match a corresponding ongoing 5 to 10 MTPA expansion of the steel plant of JSW Steel Ltd. adjacent to the Jetty on the right bank of the Amba River/Dharamtar Creek.
- (iii) The expansion of the Jetty, back up and associated facility is nearing completion, so that it would be capable of handling about 33.95 MTPA of various cargo. The main commodities handled/to be handled at the Jetty include IBRM, CBRM, fluxes, clinker, cement, HR coil, steel sheets, CR coils, other iron and steel products, slag and containers, etc.
- (iv) The Jetty facility puts to effective use the available waterway transportation corridor of the Amba River/Dharamtar Creek, thus reducing the load of materials transfer of a 10 MTPA steel plant on the road transport infrastructure.
- (v) The raw/bulk material transfer from the Jetty/Jetty backup to the steel plant at-arms-length is materialized through conveyor corridor comprising of two existing conveyor streams and six proposed conveyor streams (as in the EC and CRZ Clearance of the Jetty facility expansion) housed in two elevated conveyor corridors.

S. Bore

- (vi) The Jetty backup is proposed to serve all the raw-materials storage for the new steel plant units (including the proposed slag based cement grinding unit), conveying the material to the day-bins of the respective plant units on demand thus the Jetty facility is the implementation unit for all raw materials conveyance system for the proposed steel plant expansion.
- (vii) The proposed conveyors are an extension of the cross-country conveyor to take the material further south to the other steel plant units under expansion. An additional pipe conveyor stream (bi-direction simultaneous conveyance, in a stacked manner) is also proposed for cement duty.
- (viii) The corridor will also carry power transfer tower line from the grid tie-in point near to the electrical distribution substation of the steel plant to *inter alia* supply power to the conveyors. The conveyor corridors will also co-carry/carry in the RoW utility lines for the materials transfer (e.g. water pipeline, compressed air, power and ICT cables, etc.).
- (ix) The conveyor corridor are proposed in CRZ III as per project specific tideline demarcated by NCSCM, Chennai (Govt. of India), and are permissible activities under the CRZ Notification, 2011 (amended).
- (x) Since the Dharamtar Port Pvt. Ltd is the designated implementation agency for the materials handling and conveyance all raw materials for the proposed steel plant expansion, amendment in the CRZ clearance is being applied by it to include the proposed conveyor and utility systems for the project. No increase in the capacity and land area of either the Jetty facility or the steel plant is proposed.
- (xi) CRZ recommendation for the amendment proposal has been obtained from Maharashtra Coastal Zone Management Authority (MCZMA) vide their letter dated 16.02.2019.

3. The EAC noted that the proposal is for amendment in Environmental and CRZ Clearance accorded to the project "Expansion of Dharamtar Jetty facility" in Village Dolvi of District Raigad (Maharashtra) in favour of M/s JSW Dharamtar Port Pvt Ltd by MoEF&CC vide letter F.No.11-79/2013-IA.III dated 26.11.2015 and further amendment was granted on 26.03.2016. The EAC also noted that CRZ recommendation for the amendment proposal has been obtained from Maharashtra Coastal Zone Management Authority (MCZMA) vide their letter dated 16.02.2019. The EAC further noted that MCZMA while considering the project noted that proposed conveyer belt and transmission line activities are permissible as per provisions of the CRZ Notification, 2011 with prior clearance from the MoEF&CC. However, the said activities should not be proposed in mangroves or its 50 m buffer zone. The Committee deliberated upon the proposal and noted that the environmental Clearance was granted to Dharamtar Jetty facility vides letter F.No.11-79/2013-IA.III dated 26.11.2015. Now, the project proponent has submitted a proposal for Amendment in EC&CRZ clearance under which the project proponent wants to develop extra facilities for enhanced steel plant capacity from 5 to 10 MTPA. The EAC was informed that the CRZ Division of the Ministry has seen the proposal and found it a permissible activity as per CRZ Notification, 2011 and Maharashtra Coastal Zone Management Authority (MCZMA) has also recommended the proposed amendment vide their letter dated 16.02.2019.

4. The EAC in its 46th meeting held on 25-26 November, 2019 deliberated upon the proposal and information submitted by the project proponent. The Committee recommended to add component in the EC and CRZ Clearance letter F.No.11-79/2013-IA.III dated 26.11.2015 and subsequent amendment dated 26.03.2016. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accord addition of following component in EC and CRZ Clearance letter F.No.11-79/2013-IA.III dated 26.11.2015 and subsequent amendment vide letter dated 26.03.2016:

Laying of in-plant conveyor to serve all the raw-material conveying to the day bins of the respective plant units and its associated facilities. All raw materials will be transferred from Jetty/Jetty backup to the respective plant units through the conveying system. Pipe conveyors (bi-directional) will be for the cement grinding unit with associated facilities like power, water pipeline, ICT cables.

5. The project proponent shall also comply with the following additional conditions:
- (i) All the recommendations and conditions specified by the Maharashtra Coastal Zone Management Authority (MCZMA) vide letter No. CRZ-2018/CR-293/TC-4 dated 16.02.2019, shall be complied with.
- (ii) The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013. As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 01.05.2018, and proposed by the project proponent, an amount of Rs. 3.0 Crore (@ 0.75% of Amendment Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as health, water, infrastructure, skill development, agriculture and scientific Support and plantation. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the Regional Office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.
6. All the other conditions contained in the EC and CRZ Clearance letter F.No.11-79/2013-IA.III dated 26.11.2015 and subsequent amendment vide letter dated 26.03.2016 shall remains the same.


(Dr. Subrata Bose)
Scientist F

Copy to:

- 1) The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 400 032.
- 2) The APCCF (C), MoEF&CC, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.
- 3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4) The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, Mumbai - 400 022.
- 5) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 6) Guard File/ Record File/ Notice Board.
- 7) MoEF&CC website.


(Dr. Subrata Bose)
Scientist F



JSW Steel Limited

Dolvi Works: Geetapuram,
Dolvi, Taluka - Pen,
Dist Raigad - 402 107, Maharashtra, India.
CIN. : L27102MH1994PLC152925
Phone : +91 2143 277501-15
Fax : +91 2143 277533/42
Website : www.jsw.in

August 6, 2020

JSWSL/MPCB/ENV/2020

To,

The Regional Officer, Raigad,
Maharashtra Pollution Control Board,
Raigad Bhavan, 6th Floor,
CBD, Belapur, Navi Mumbai - 400 614.

Sub: Direction regarding Compliances of Hon'ble NGT Order dated 03/01/2018 in respect of application No 122 of 2015.

Ref: 1. Your letter no. MPCB/RO/200805-FTS-0029 dated 05/08/2020 received through e-mail.
2. Consent to operate for Blast Furnace vide Consent No BO/CAC-Cell/UAN No. 0000035084-17/CAC-1804000347, Dated 07/04/2018.
3. Consent to operate for Hot Strip Mill vide consent No -Format 1.0/ BO/ CAC - Cell/ UAN No. 0000045821 - 18 / CAC - 1811000099 dated 02/11/2018.

Respected Sir,

With reference to above, we have received your above letter through e-mail dated 05.08.2020 and we would like to humbly submit that M/s. JSW Steel Ltd., Dolvi is committed for safeguarding the environment and is complying with all the provisions of the Consent conditions under the Water Act, 1974, Air Act, 1981 and Hazardous Wastes Management & Handling Rules, 2016.

Regd. Office: JSW Centre,
Bandra Kurla Complex,
Bandra(East), Mumbai - 400 051.
Phone : +91 22 4286 1000
Fax : +91 22 4286 3000





- A. As mentioned in your letter, iron and steel slag are excluded from the category of hazardous wastes, as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, the high volume low effect wastes such as fly ash, Phosphogypsum, red mud, jarosite, Slags from pyrometallurgical operations, mine tailings and ore beneficiation rejects. Thus, as per the aforementioned guidelines and rules the steel slag falls under **Non-Hazardous** category.
- B. The point wise compliance and clarification to your suggestions and recommendations is as below;
1. As per the Consent conditions, the Blast Furnace Slag generated from the Blast Furnace I (3.5 MTPA) is 100% utilized for cement making. The same arrangement shall be made for proposed Blast Furnace Plant II (4.5 MTPA). For utilization of Blast Furnace Slag, we have Cement plant of adequate capacity and 100% slag generated shall be used for Cement making. Steel slag generated from Hot Strip Mill is used internally in Sinter Plant, road making, land reclamation in low lying area & also stored in designated place after processing for metal recovery.
 2. We also have plans for utilization of iron and steel slag in applications like Civil Construction, Soil Conditioner, Aggregates for Roads, making Blocks/Tiles as per BIS guidelines and for marine applications. We have already approached reputed institutes like Central Road Reserch Institute, Central Building Research Institute and Central Water Power Research Station for usage of steel slag in a Scientific manner for construction purposes as per the BIS guidelines and the same shall be implemented in a phase wise manner as per the reports of the said institutes.
 3. JSW Steel Ltd., Dolvi is currently utilizing these slags in various applications in line with the recommendations made by Central Pollution Control Board and BIS Guidelines.



4. The Steel slag is non-hazardous in nature. However, as directed we will take all precautionary steps for utilization of slag to avoid soil contamination, ground water and surface water pollution and avoid environment contamination in nearby villages.
 5. We confirm to strictly comply with all the conditions stipulated from time to time and follow the CPCB guidelines and orders issued by your good office for utilization of steel slag.
- C. With reference to our above point wise clarifications and commitment towards environment protection, it may please be reaffirmed that JSW Steel Ltd., Dolvi is complying with all the provisions of The Hazardous Wastes (Management & handling) Rules 2016 and recommendations and suggestions issued by your office from time to time and the compliances will be made and reported to your office in time.

Thanking you

Yours Faithfully,

For JSW Steel Ltd.

G.S. Rathore

President (Dolvi & Salav)

CC: The Regional officer, Head office, MPCB, Sion, Kalpataru Point, Mumbai
The Law Officer, MPCB, HQ, Sion, Kalpataru Point, Mumbai
The Sub Regional officer, MPCB, Raigad II, CBD Belapur, Navi Mumbai

**BEFORE THE NATIONAL GREEN TRIBUNAL, PUNE
WESTERN ZONE- AT PUNE
ORIGINAL APPLICATION NO 122 OF 2015 (WZ)**

Samita Rajendra Patil &

.....Applicants

V/s

Jindal Steel Works Ltd and Others

.....Respondents

**REPORT IN COMPLIANCE OF THE ORDER DTD.30.01.2018 PASSED BY THE
HON'BLE NATIONAL GREEN TRIBUNAL**

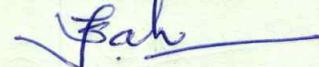
In the above matter, Hon'ble Tribunal vide order dated 30.1.2018 directed the Maharashtra Pollution Control Board to prepare the report giving recommendations and suggestions.

In compliance of the said Hon'ble NGT Order dated 30.01.2018, the Maharashtra Pollution Control Board is filing its report as under:-

1. The Respondent Board has granted Consent to Operate to M/s. JSW Steel Ltd (Formerly known as M/s. Jindal Steel Works Ltd.) an Integrated Steel Plant, located at Dolvi Raigad, Tal: Pen, Dist: Raigad for HSM and BFP Plants vide consents dated 07.04.2018 and 02.11.2018 respectively. As per the consent conditions, the slag's generated from hot strip mill and blast furnace plant are under the Non-Hazardous Waste category.
2. The Respondent Board issued a letter dtd. 05.08.2020 incorporating the following suggestions & recommendations to the Respondent industry.
 - i. The industry shall comply with all conditions prescribed in the consent issued by the Board and dispose off existing as well as proposed generated slags as per consent conditions at designated places in scientific manner.
 - ii. The industry shall also explore the possibilities of utilization of slag in cement manufacturing, used as aggregates in civil & road construction and brick manufacturing activity including land reclamation and in marine applications as per CPCB guideline without violating of consent conditions.
 - iii. The industry shall strictly follow the guideline on handling and management of High Volume Low Effect Waste Slag from pyrometallurgical operations of Iron & Steel and Ferrous Alloy units prepared by CPCB.
 - iv. The industry shall take all precautionary measures to avoid any soil contamination, groundwater and surface water pollution also any adverse effect on environment and nearby villagers.
 - v. The industry shall strictly comply with all consent condition, CPCB guidelines and orders issued by Hon'ble NGT.

The Respondent Board has served the aforesaid letter dated 5.8.2020 to the Respondent Industry on 5.8.2020. A copy of the said letter dtd.5.8.2020 is enclosed herewith and marked as an **Annexure-I**.

**For and on behalf of Maharashtra
Pollution Control Board**



(J. S. Salunkhe)
Regional Officer-Raigad

Date
07/08/20

MAHARASHTRA POLLUTION CONTROL BOARD
SUB REGIONAL OFFICE-RAIGAD II

Tel. No. 2757 2620
Fax No. 2756 2132

Email: sroraigad2@mpcb.gov.in
Visit us at: <http://mpcb.gov.in>



Raigad Bhavan, 6th Floor,
Sec-11, C.B.D. Belapur,
Navi Mumbai 400 614.

No. MPCB / R O : 200805- FTS-0029.

Date: 05/08/2020

To,
M/s. JSW Steel Ltd,
Dolvi, Raigad., Tal: Pen.
Dist. Raigad.

Sub : Compliance of Hon'ble NGT order dtd: 30.01.2018 in respect of
Application No. 122/2015

- Ref: -1) Application No. 122/2015 filed by Mrs. Samita R. Patil before Hon'ble NGT, Pune.
2) Order passed by Hon'ble NGT, Pune vide dtd. 27/07/2016.
3) Investigation done along with complainant & other Govt. departments vide dtd. 07/08/2016.
4) Order passed by Hon'ble NGT, Pune vide dtd. 30/01/2018.
5) Board consents .
6) Approval received from HQ dtd : 04.08.2020.

Board has granted consent to Operate to M/s JSW Steel Ltd. (Integrated Steel Plant) located on above address for HSM & BFP plants vide consent dtd : 02.11.2018 07.04.2018 respectively. As per the consent condition the slag's generated from Hot strip mill and Blast furnace plant are under the Non Hazardous waste category.

Please noted that, as per foot Note of H.W, Rules 2016 under Schedule-I, the 'High Volume Low Effect Waste such as slags generated from pyrometallurgical operations are excluded from the category of HW and should be disposed off as per CPCB guidelines.

Hon'ble NGT has passed the order dated on 30.01.2018, and directed to MPCB to prepare report giving recommendations and suggestions and serve the copy to the respondent industry for his response. So, find enclosed herewith the report with recommendations and suggestions for Hon' NGT compliance in time.

Therefore, you are hereby directed to strictly comply with following recommendations and suggestions :

1. You shall comply with all conditions prescribed in the consent issued by the Board and dispose off existing as well as proposed generated slags as per consent conditions at designated places in scientific manner.

2. You shall also explore the possibilities of utilization of slag in cement manufacturing, used as aggregates in civil & road construction and brick manufacturing activity including land reclamation, and in marine applications as per CPCB guidelines without violations of consent conditions.
3. You shall strictly follow the guidelines on handling and management of High Volume Low Effect Waste- Slag from pyrometallurgical operations of Iron & Steel and Ferrous Alloy units prepared by CPCB.
4. You shall take all precautionary measures to avoid any soil contamination, groundwater and surface water pollution, also any adverse effect on environment and nearby villagers.
5. You shall strictly comply with all consent conditions CPCB guidelines and orders issued by Hon'ble NGT .

FOR AND ON BEHALF OF THE M.P.C.BOARD.

Jah
 (Salunkhe J.S.)
 05/08/20
 Regional Officer, Raigad

Copy submitted to:

1. Regional Officer, HQ, MPCB Sion, Mumbai.
2. Law Officer, HQ, MPCB Sion, Mumbai.

4th Quarterly Report (January - March, 2018)

Jindal Steel Works Limited, Dolvi

Project

Mangrove Restoration and Development of Sustainable of Livelihood

(Under CSR)

Mangrove Plantation:

1st Phase

Since 2016, the CSR Department of JSW, Dolvi is working on Restoration of Mangrove, Livelihood and Study of Biodiversity of Dharamtar Creek on Amba river. The purpose is to prevent saline upsurge from entering into villages of the region during high tide by developing a mangrove bio-shield along the embankment.

Out of 16 villages situated near embankment in the project area from Kolve to Vittelwari Bhal, 05 villages from Mosad (N 18°43'47.5972", E 72°59'40.9911") to Sirki Chawl No.- 2 (N 18°43'47.5972", E 72°59.0242") have been considered for mangrove restoration in the 1st phase (2016-17). The villages are Mosad bedi, Thakur bedi, Tamsibandar, Sirki Chawl no. -1 & Sirki Chawl no. - 2.



Last year's plantation

Average height as reached 2ft 6in

Plantation and restoration of site specific mangrove species along the embankment (bund) and adjacent existing mangrove belt, on the upper mudflat area has been undertaken.



Last year's plantation

Accordingly a total 1,05,000 seedlings were planted in 25 hectares area of the 5 villages in the 1st phase of mangrove restoration project. This plantation was done by 406 members under 29 SHGs of 5 villages.

Physical count on the field indicates that 82.5 % saplings which were planted in 2016-2017, that is in the first phase, are surviving in a good health. The plants have gained an average height of 2 feet 6 inches.

2nd Phase

Along the Amba river, the mangroves are very dense in pattern, but due to routine freight haul by shipping, river generates upsurge wave action which hits the embankment of the area Bhal (Lat. N 18°45'55.3983" & Long. E 73°00'3.9722") and adjacent villages upto Kolave (Lat. N 18°42'51.0443" & Long. E 73°01'26.0092"). This phenomena increase during the high tide.

As a result, the mangrove vegetation is dwindling and severe wave upsurge gushes into the villages and farm land. This wave action deposits salt on the agriculture fields, leading to loss of soil productivity.

Vittalbedi (18° 47' 57.8652" N, 72° 58' 35.5908" E), an area known for its fragile resistance to wave action. Another village, Bhal (18° 46' 47.8056" N, 73° 0' 4.9284" E) susceptible to wave action had suffered Bund destruction and so, sandbags were used as temporary ramifications against tidal action. But this proved futile and hence, such areas and the other areas in front of previous year plantations (2016-17) for widening the mangrove belt to slowdown the wave action have been considered for plantation.

Accordingly a total 2,99,740 seedlings were planted in 60 hectares area of the 20 villages in the 2nd phase (2017-18) of mangrove restoration project . This plantation was done by 820 members under 81 SHGs of 20 villages.

Details of Mangrove Restoration project 2017-18

- 1) Length of Mangrove belt - DharamtarJetty to Bhal – 18 Km area
- 2) Cover area of Mangrove plantation area-60 ha
- 3) Mangroves working area – 6 Villages
- 4) Number of villages involved in plantation- 20
- 5) Number of SHG involved plantation- 81 (34 old & 47 New SHG)
- 6) Total number of members of SHGs- 820
- 7) Meeting with Villagers – 25 meetings conducted
- 8) Training for Mangroves Nursery – 4 trainings conducted for SHGs
- 9) Ratio 1 Hector / 5000 plants



Group Meeting

Table a-f depicts number of plantations of each SHG under their respective villages.

Table a: Details of the Plantation- Masad Budruk Gram Panchayat (GP)

Sl No.	Name of SHG	Name of GP	Number of SHG members	Village	No of plants Planted	Amount paid
1	Anjanli Sway saha B. G.	Masad Badrhuk	12	Masadbede	4000	80000
2	Dnyanai Mahila Bachat Gat		10	Masadbede	4000	80000
3	Gangabai Mahila Bachat Gat		16	Masadbede	4000	80000
4	Shree Ganesh Swayamshayyata Mahila Bachat Gat		12	Borve bedi	4000	80000
5	Santoshi mata Mahila Bachat Gat		11	Masadbede	4000	80000
6	Gavdevi Mahila Bachat Gat	Masad Badrhuk	10	Borve bedi	4000	80000
7	Shree Hanuman Swanyachali Mahila Bachat Gat		18	Masad Budruk	4000	80000
8	Kulswamini Mahila Bachat Gat		10	Masad Budruk	4000	80000
9	Jagadamba Joint Labiliti Group		6	Masadbede	4000	80000
10	Shree Duttaguru Swanyachali Mahila bachat Gat		10	Masad Budruk	4000	80000
		Total	115	3	40000	800000



Nursery

Table b: Details of the Plantation- Melagharwadi Gram Panchayat (GP)

Sl No.	Name of SHG	Name of GP	Number of SHG members	Village	No of plants Planted	Amount paid
1	Shri Bahiridev Mahila Bachat Gat No-1	Div	16	bahiramkotak	4000	80000
2	Shri Bahiridev Mahila Bachat Gat No.2		10	bahiramkotak	4000	80000
3	Shri Bahiridev Gramsth Mahila Bachat Gat.2		12	Bahiramkotak	4000	80000
4	Bahiridev Gramast Mahila Bachat Gat		11	bahiramkotak	4000	80000
5	Jay Hanuman Bachat Gat		13	Div	4000	80000
6	Sainath Mahila Bachat Gat No-1		13	Mantribedi	4000	80000
7	Sainath Mahila Bachat Gat No-2		14	Mantribedi	4000	80000
8	Shree Dattatguru Mahila Bachat Gat		13	Malegharwadi	4000	80000
9	Jay Bhavani mahila		12	Malegharwadi	4000	80000

	Bachat Gat 1					
10	Jay Bhavani Mahila Bachat Gat 2		12	maleghaewadi	4000	80000
11	Satdevi Mahila bachat gat		18	Ghodabandar	4000	80000
12	Sneha Mahila Bachat Gat		10	Vitthalnager Div	4000	80000
13	Kuldaivat Mahila Bachat Gat		10	Div	4000	80000
14	Pragati Mahila Mandal		10	Divbedi	4000	80000
15	jaru maru aai Mahila Bachat gat		10	Pairankarwadi	4000	80000
		Total	184	8	60000	1200000



Nursery



Nursery



Table c: Details of the Plantation- Tamsibandari Gram Panchayat (GP)

Sl No.	Name of SHG	Name of GP	Number of SHG members	Village	No of plants Planted	Amount paid
1	Kuldaivat Mahila Bachat Gat No-2	Borze	11	Thakurbedi	4000	80000
2	Vetu koli Mahila Bachat Gat		10	Tamsibandar	4000	80000
3	Sagar Kinara Mahila Bachat Gat		11	Ghodabandar	4000	80000
4	Shiv Shakti Mahila Bachat Gat		10	Janavalibedi	4000	80000
5	Gavdevi Mahila Bachat Gat		10	Janavalibedi	4000	80000
6	Kuldaivat Mahila Bachat Gat No-1		10	Thakurbedi	4000	80000
7	Tulsimata Mahila Bachat Gat		10	Thakurbedi	4000	80000
8	Kulswamini Mahila Bachat Gat		10	Janavalibedi	4000	80000
9	Jai Amba Mata Mahila Bachat Gat		10	Ghodabandar	4000	80000
10	Aaba Mata Mahila Bachat Gat		10	Ghodabandar	4000	80000
11	Shiv Parvati Mahila Bachat Gat		10	Janavali	4000	80000
12	Shiv Shambo Mahila Bachat Gat		10	Janavali	4000	80000
13	Akkadevi Mahila Bachat Gat		12	Borkarwadi	4000	80000
14	Shivam Mahila Bachat Gat		10	Janavali	4000	80000
15	Aetokoli Mahila Bachat Gath (No-1)		11	Tamsibandar	4000	80000
16	Atukoli Mahila Bachat Gat (No-2)		10	Tamsibandar	4000	80000
17	Vitthal Rukmai Mahila Bachat Gat		10	Tamsibandar	4000	80000
18	Shree Gorakhnath Mahila Bachat Gat		11	Ghodabandar	4000	80000
19	Aaba Mahila Bachat Gat		10	Ghodabandar	4000	80000
20	Shiv Shambo Mahila Bachat Gat		11	Janavali	4000	80000
21	Kasturi Mahila Bachat Gat		10	Janavali	4000	80000
22	Kalbhairav Mahila Bachat Gat		11	Thakurbedi	4000	80000
		Total	228	6	88000	1760000

Table d: Details of the Plantation- Sirki Gram Panchayat (GP)

Sl No.	Name of SHG	Name of GP	Number of SHG members	Village	No of plants Planted	Amount paid
1	Vithoba Dev Bachat Gat	Sirki	8	Sirki chawl no. 1	3040	60800
2	Jagdamba Bachat Gat		8		3040	60800
3	Mangalmurti bachat Gat		8		3040	60800
4	Om Namah Shivay Bachat Gat		9		3040	60800
5	Shiv Shambho Mahila Bachat Gat		9		3040	60800
6	Ashtavinayak Mahila Bachat Gat		9		3040	60800
7	Sankalp shiddi Mahila Bachat Gat		9	3040	60800	
	Total		60	1	21280	425600

**Training Certificates were distributed to the trainees**

Table e: Details of the Plantation- Wadhav Gram Panchayat (GP)

Sl No.	Name of SHG	Name of GP	Number of SHG members	Village	No of plants Planted	Amount paid
1	Khandoba Mahila Bachat Gat	Wadhav	18	Vitthalwadi	4000	80000
2	Bhawani Mata Shetkari Mahila Bachat Gat		15	Vitthalwadi	4000	80000
3	Mogra Mahila Bachat Gat		10	Mothe Bhal	4000	80000
4	Gouri devi Mahila Bachat Gat		10	Mothebhal	4000	80000
5	Jagdamba Mahila Bachat Gat		10	Vitthalwadi	4000	80000
6	Shree Vignharta Mahila Bachat Gat		15	Vitthalwadi	4000	80000
7	Sankalp Mahila Bachat Gat		14	Vitthalwadi	4000	80000
8	Santoshi Mata Shetakari Mahila Bachat Gat		18	Vitthalwadi	4000	80000
9	Akka Devi Mahila Bachat Gat		10	Vitthalwadi	4000	80000
	Total		120	2	36000	720000

***Cheques were distributed to the beneficiaries***

Table f : Details of the Plantation- Tamsibandari Gram Panchayat (GP)

Sl No.	Name of SHG	Name of GP	Number of SHG members	Village	No of plants Planted	Amount paid
1	Jay Ambabhavani Swayamsahayata Mahila Bachat Gat		12		3040	60800
2	Kashtkari Swayamsahayata Mahila Bachat Gat		13		3040	60800
3	Shivparvati Mahila Bachat Gat		8		3040	60800
4	Jay Ganesh Swayamshayyata Mahila Bachat Gat		15		3040	60800
5	Vijay Mhasoba SHG		19		3040	60800
6	Shree Vijay Mhasoba Swayamshayyata Mahila Bachat Gat		9		3040	60800
7	Sai Ganesh Swayamshayyata Mahila Bachat Gat		15		3040	60800
8	Vithabai Swayamshayyata Mahila Bachat Gat		15		3040	60800
9	Ganesh Krupa Swayamshayyata Mahila Bachat Gat		5		3040	60800
10	Shreekrupa Swayamshayyata Bachat Gat No-2		5		3040	60800
11	Shreekrupa Swayamshayyata Bachat Gat		5		3040	60800
12	Giroba Swayamshayyata Bachat Gat		5		3040	60800
13	Ganesh Krupa Swayamshayyata Bachat Gat No-2		5		3040	60800
14	Vinar Group Swayamshayyata Bachat Gat No-2		5		3040	60800
15	Shree Samarth krupa Swayamshayyata Mahila Bachat Gat		5		3040	60800
16	Ambabhavani Swayamsahayata Mahila Bachat Gat		5		3040	60800
17	Kala Swayamsahayata Mahila Bachat Gat		6		2780	55600
18	Bhagyalakshni Sahayata Mahila Bachat Gat	Sirki	7	Srkichawl-2	3040	60800
	Total		159	7	54460	1089200



Nursery Training



GPS Training was provided

The visits were conducted to mangrove plantation sites along the Amba river adjoining villages- Ghodabandar, Thakurbedi, JanavaliBedi, Tamshibandar, Masadbedi, Shirkichal No. 1 and 2. to monitor the health and viability of the plantations and to check upon any unwarranted pest and fungal attacks. On monitoring, seedlings were found to be optimally viable with no unprecedented fungal or pest attack. Discussions with the members of the SHG of villages were held on the issue of better protection and management practices for the mangrove plantations.

Group meetings were held with villagers and Panchayets from time to time

Sustainable livelihood

Community Pond

Along with mangrove Restoration programme, preparation of " Community Fish Ponds" have been completed successfully during 2017-18.

Sirki chawl no. 1----10,000 sq ft pond



Community Pond

Expenses for digging of the pond and Construction of the right side of the boundary wall will be borne by JSW and cost of introduction of spwans, feeds and construction of embankments of other three sides will be borne by the community.

Janawali -----2,000 sq.ft.

75% of the expenses for digging and treatment of the water will be borne by the company and 25% by the beneficiaries. Cost of fish spawns and feeds will be provided by the beneficiaries.



Pachayet Pond

Panchayet Pond

On the request of two panchyets two ponds, one pond with an area 4,000 sq. ft. in lakhole under Tamsibander GP and other one with an area of 15,000 Sq. ft.in Bhal under Borwad G.P. have been created by the company in order to mitigate the scarcity in the villages.

Foot Bridges

Two foot bridges were constructed by JSW in Bhal-2 and Sirki chawl no. 2 for the benefit of the village people particularly during monsoon.

Construction and renovation of the road

One Road was constructed at Tamsibandar by JSW, Dolvi and road was renovated by JSW in Borevebedi under Masad G.P.

Last Year's Community Fish culture

Last year's Community fish culture has yielded a very good result. Total 2100 kilogrammes of Shrimps were harvested which were sold @ Rs.420/ per kilo.



We are saddened by the sudden demise of Avinash Bhoir of Tamsibandar who was the key person behind the success of last year's Community fish culture.

Tailoring:



Tailoring

Vocational training on basic cutting and tailoring course initiated since December, 2016 and advance training course initiated since January, 2017.

One training centre has been visited in the village Kandalepada under the Kandalepada G.P. Total 50 women were selected for training of tailoring. 50 women are divided into two groups. They have been trained under guidance of an expert. Different kind of bags and dresses like umbrella fork, umbrella top, churidar, half shirt, half pant, full shirt, full pant, Patiala Punjabi top, anarkali top, katori top, prince cut blouse, stand collar blouse, two piece katuri etc. were tailored by the trainees.

Biodiversity Study of Raigad District, Maharashtra

A study on the biodiversity of the region has been carried out and documented; a prestigious and informative publication will come out at the end of the study.

Mangroves:

Mangroves ecosystem forms important components of the coastal biome in the tropics. This ecosystem occupies about 330 sq. km. area in Maharashtra and forms about 13% of the total mangroves in the country. In total 14 species of mangroves, 8 species of mangrove associates and 8 species of non-mangrove halophytes were recorded from estuaries of Raigad district (**Table-1**).

Table 1: List of Mangroves and Associates found in Raigad district

Sl. No.	Habit	Scientific Name	Common Name
Mangroves			
1	Small tree	<i>Aegiceras corniculatum</i>	Kajla
2	Small tree	<i>Avicennia marina</i>	Tivar
3	Tree	<i>Avicennia officinalis</i>	White Mangrove /
4	Tree	<i>Bruguiera gymnorhiza</i>	-
5	Tree	<i>Bruguiera caryophylloides</i>	-
6	Small tree	<i>Ceriops decandra</i>	Chauri
7	Small tree	<i>Ceriops tagal</i>	Chauri
8	Large shrub	<i>Excoecaria agallocha</i>	Binding tree / Geva
9	Tree	<i>Rhizophora apiculata</i>	Kamodumbi
10	Tree	<i>Rhizophora mucronata</i>	Kamodumbi
11	Shrub / small tree	<i>Salvadora persica</i>	-
12	Small tree	<i>Sonneratia apetala</i>	-
13	Tree	<i>Sonneratia griffithii</i>	-
14	Small tree	<i>Sonneratia alba</i>	-
Associates			
15	Shrub	<i>Acanthus illicifolius</i>	Sea holly / Marandi
16	Straggling shrub	<i>Clerodendron inerme</i>	-
17	Shrubby diffuse herb	<i>Cressa cretica</i>	Rudravanti / Lona
18	Woody climbing	<i>Derris trifoliata</i>	-
19	Woody climbing	<i>Derris uliginosa</i>	-
20	Sedge	<i>Fimbristylis ferruginea</i>	-
21	Grass	<i>Porteresia coarctata</i>	Wild rice
22	Perennial grass	<i>Urochondra setulosa</i>	Nedi
Non-Mangrove Halophytes			
23	Perennial grass	<i>Aeluropus lagopoides</i>	-
24	Perennial herb	<i>Sesuvium portulacastrum</i>	Sea purslane
25	Small shrub	<i>Suaeda maritima</i>	Sea blite
26	Erect reed / Sedge	<i>Scirpus littoralis</i>	Bullrush
27	Small tree	<i>Tamarix troupii</i>	Badi Mai
28	Shrub	<i>Hibiscus spp.</i>	-
29	Erect reed / Sedge	<i>Cyperus spp.</i>	-
30	Herb	<i>Hygrophilla spinose</i>	Talikhana

Birds:

Mangrove vegetation provide a complaint niche for the myriad resident as well as passage of migrant aquatic birds, which utilize the system in varying degree for feeding, roosting and breeding. Mangroves serve the birds in different ways. Herons, Storks, Raptors and owls use them as nesting sites. Wintering Palaearctic waders use them as roosting sites after feeding in the tidal mudflats. Mangroves ecosystems play a significant role in conservation of not only resident species but also migratory and endangered birds.

Mangrove ecosystems play a significant role in conservation of not only resident species but also migratory and endangered birds. Till now extensive scientific research on ecological aspects of birds in mangroves has been carried out India, however data on species diversity of birds in mangroves is not available.

Birds are bio-indicators of habitat quality and are sensitive to any subtle changes taken place in the habitat. Monitoring of species diversity is a useful technique for assessing damage to the system and maintenance of good species is a positive management objective. A total 56 species of birds representing 11 orders, 29 families and 46 genera were recorded from the mangroves area of Raigad district (**Table-2**)

Table-2: List of birds recorded in mangrove forests of Raigad District, Maharashtra

Sl. No.	Order/ Family name	Scientific name	Common name	Status
1	Anseriformes	<i>Anas poecilorhyncha</i> (Forster)	Spot-billed Duck	W
2		<i>Anas clypeata</i> (Linn.)	Northern Shovellar	W
3		<i>Dendrocygna javanica</i> (Horsfield)	Lesser whistling-Duck	W
4		<i>Tadorna ferruginea</i> (Pallas) R	Ruddy Shelduck	W
5	Charadriiformes Jacanidae	<i>Hydrophasianus chirurgus</i> (Scopoli)	Pheasant-tailed Jacana	W
6	Laridae	<i>Larus fuscus</i> (Linn.)	Lesser black-backed Gull	W
7		<i>Larus <u>cachinnans</u></i> (Pallas)	Yellow-legged Gull	W
8	Scolopacidae	<u><i>Limosa limosa</i></u> (Linn.)	Black-tailed Godwit	W
9		<i>Philomachus <u>pugnax</u></i>	Ruff Sandpiper	O

		(Linn.)		
10	Ciconiiformes Threskiornithidae	Plegadis <u>falcinellus</u> (Linn.)	Glossy Ibis	O
11		Platolea leucorodia (Linn.)	Eurasian Spoonbill	W
12	Phoenicopteridae	Phoenicopterus ruber (Linn.)	Greater Flamingo	W
13		P. minor (<u>Geoffary Saint - Hiliare</u>)	Lesser Flamingo	W
14	Ciconiidae	Anastomus <u>oscitans</u> (Boddaert)	Asian <u>Open-bill</u> Stork	W
15		Mycteria <u>leucocephala</u> (Pennant)	Painted Stork	W
16	Charadriidae	Vanellus indicus (Boddaert)	Red-wattled Lapwing	R
17		Himantopus himantopus (Linn.)	Black-winged Stilt	W
18	Ardeidae	Ardeola grayii (Sykes)	Indian Pond Heron	R
19		Babulcus ibis (Linn.)	Cattle Egret	R
20		Ardeola alba (Linn.)	Large Egret	R
21		Egretta egretta (Linn.)	Little Egret	R
22		Ardea intermedia (Wagler)	Median Egret	R
23		Egretta gularis (Bosc.)	Western Reef Egret	R
24		Ardea insignis (Hume)	White-bellied Heron	R
25	Columbiformes Columbidae	Columba livia (Gmelin)	Blue Rock Pigeon	R
26		Streptopelia chinensis (Scopoli)	Spotted Dove	R
27	Coraciiformes Coraciidae	Coracias benghalensis (Linn.)	Indian Roller/Blue Jay	R
28	Meropidae	Merops orientalis (Latham)	Green Bee-eater	R
29	Alcedinidae	Halcyon smyrnensis	White-breasted	R

		(Linn.)	Kingfisher	
30	Cuculiformes Cuculidae	Centropus sinensis (Stephens)	Crow Pheasant	R
31	Falconiformes Accipitridae	Elanus caeruleus (Desfontaines)	Black-shouldered Kite	W
32		Milvus migrans (Boddaert)	Black Kite	R
33		Haliastur indus (Boddaert)	Brahminy Kite	W
34	Gruiformes Rallidae	Amaurornis phoenicurus (Pennant)	White-breasted Water hen	R
35		Porphyrio porphyrio (Linn.)	Purple-Swamp hen	W
36	Passeriformes Dicuridae	Dicurus macrocercus (Vieillot)	Black Drongo	R
37	Corvidae	Corvus splendens (Vieillot)	House Crow	R
38		Corvus macrorhynchos (Wagler)	Jungle Crow	R
39	Estrildidae	Lonchura punctulata (Linn.)	Scaly-breasted Munia	R
40		Estrilda amandava (Linn.)	Red Munia / Avadavat	R
41	Passeridae	Lonchura malacca (Linn.)	Black-headed Munia R	R
42		Passer domesticus (Linn.)	House Sparrow	R
43		Ploceus phillippinus (Linn.)	Baya Weaver	R
44		Sturnus raseus (Linn.)	Rosy Starling	W
45	Sturnidae	Acridotherus tristis (Linn.)	Common Myna	R
46	Pycnonotidae	Pycnonotus cafer (Linn.)	Red-vented Bulbul	R
47	Laniidae	Lanius schach (Linn.)	Rufous-backed Shrike	R
48	Hirundinidae	Hirundo rustica (Linn.)	Common	R

			Swallow	
49	Motacillidae	Motacilla citreola (Pallas)	Yellow-headed Wagtail	W
50		Dendronanthus indicus (Gmelin)	Forest Wagtail	R
51		Motacilla alba (Linn.)	White Wagtail	W
52	Nectariniidae	Nectarinia zeylonica (Linn.)	Purple-rumped Sunbird	R
53		Nectarinia asiatica (Latham)	Purple Sunbird R	R
54	Muscicapidae	Copsychus saulirus (Linn.)	Oriental Magpie Robin	R
55	Pelecaniformes Phalacrocoracidae	Phalacrocorax niger (Vieillot)	Little Cormorant	R
56	Psittaciformes Psittacidae	Psittacula krameri (Scopoli)	Rose-ringed Parakeet	O

Fishes:

Since the project under consideration is near the seaside, fisheries are an important aspect to be studied.

The fishing activity can be divided into two major types, viz. Inland fishing and Marine fishing. Majority of the fishes captured are the major carps *Cirrhina mrigala*, *Catla catla*, *Labeo rohita* and catfishes, murrels, *Barbus*, *Hilsa*, Mulletts, crabs, prawns, and shrimps. The major carps with their good taste have good economic value. Moreover, they form a major part of the diet of the people in this region. List of species of fishes recorded in Raigad is given in **Table-3**.

Table 3: List of Fishes in Raigad district:

Sr. No.	Scientific name	Common name	Family
1.	<i>Lucifer typus</i>	Shrimp	Luciferidae
2.	<i>Pseudodiaptomus annandalei</i>	Copepod	Pseudodiaptomidae
3.	<i>Chyloscyllium indicum</i>	Sunera	Orectolobidae
4.	<i>Scoliodon sorrakowah</i>	Sonmushi	Carcharinidae
5.	<i>Carcharias limbatus</i>	Mushi	Carcharinidae
6.	<i>Sphyrna blochii</i>	Kawmushi	Sphyridae
7.	<i>Rhinobatus granulatus</i>	Ranja	Rhinobatidae
8.	<i>Pristiscus pidatus</i>	Nali	Pristidae
9.	<i>Gymnura poesihuri</i>	Pakat	Trygonidae
10.	<i>Himantura bleeheri</i>	Pakati	Trygonidae

11.	<i>Mobula diabolus</i>	Bolad	Myhisbatidae
12.	<i>Kowala koval</i>	Bhigi	Clupeidae
13.	<i>Sardinella longiceps</i>	Tarali	Clupeidae
14.	<i>Sardinella fimbriata</i>	Pedawa	Clupeidae
15.	<i>Cenpeas indensis</i>	Gubar	Clupeidae
16.	<i>Chirocentrus dorab</i>	Karali	Chirocentridae
17.	<i>Plotosus anguillaris</i>	Narshingali	Synodontidae
18.	<i>Tachysurus sumantranus</i>	Shingala	Tachysuridae
19.	<i>Tachysurus nenga</i>	Shingala	Tachysuridae
20.	<i>Netumatha lassinus</i>	Shingala	Tachysuridae
21.	<i>Netma serratus</i>	Shingala	Tachysuridae
22.	<i>Pxuda riusjella</i>	Shingala	Tachysuridae
23.	<i>Ariosoma anago</i>	Waam	Murai-nesocidae
24.	<i>Ophichtys boro</i>	Munderi	Ophichthyidae
25.	<i>Tylosurus choram</i>	Tali	Belonidae
26.	<i>Hemiramphus limbatus</i>	Sumb	Hemiramphidae
27.	<i>Holocentrus rubrum</i>	Piku	Cyprinodontidae
28.	<i>Sphyrna jello</i>	Badvi	Sphyrinidae
29.	<i>Mugil kelaartii</i>	Gunther	Mugilidae
30.	<i>Liza waiginsis</i>	Bau	Mugilidae
31.	<i>Mugil carinatus</i>	Bai	Mugilidae
32.	<i>Mugil spilgeri</i>	Bai	Mugilidae
33.	<i>Polynemu sheptadactylus</i>	Rawas	Polynemidae
34.	<i>Polynemu splebeius</i>	Rawas	Polynemidae
35.	<i>Ambassis commersoni</i>	Kachki	Ambassidae
36.	<i>Promicrpslan colatus</i>	Gobra	Serranidae
37.	<i>Epinephelus maculatus</i>	Gobra	Serranidae
38.	<i>Epinephelus undulosus</i>	Gobra	Serranidae
39.	<i>Epinephelus tawina</i>	Gobra	Serranidae
40.	<i>Therapon jarbua</i>	Naurri	Theraponidae
41.	<i>Apogon fasciatus</i>	Kombda	Apogonidae
42.	<i>Apogon frenatus</i>	Kimbda	Apogonidae
43.	<i>Silla gosihama</i>	Ranvi	Sillaginidae
44.	<i>Caranx carangus</i>	Shitap	Carangidae
45.	<i>Chorine musto</i>	Dogal	Carangidae
46.	<i>Trachinotus bailloni</i>	Lodgu	Carangidae
47.	<i>Silla gosihama</i>	Ranvi	Sillaginidae
48.	<i>Megalaspis cordyla</i>	Bangla	Carangidae
49.	<i>Menima culata</i>	Chand	Menidae
50.	<i>Lutianus roseus</i>	Tambusa	Lutianidae
51.	<i>Pertica filamentosa</i>	Charbat	Gerridae
52.	<i>Panadasys maculatus</i>	Karkara	Pomadasyidae
53.	<i>Johnn iussina</i>	Ghal	Sciaenidae
54.	<i>Scatopha gusargus</i>	Wada	Scatophagidae
55.	<i>Acanthurus gahum</i>	Suroiya	Acanthuridae
56.	<i>Rastrelliger kanagurta</i>	Bangda	Scombridae

Bivalve and Gastropod, Molluscs

The mangroves support high density of every type of molluscan species especially, *Telescopium*, *Potamides*, *Natica*, *Nerita*, and *Littorina* and oysters. The *Littorina* sp. was densely found on the trunks, pneumatophores as well as on stilt roots of mangrove plants. It is good harvesting place for variety of molluscan species.

Molluscan communities are good indicators of localized conditions, gastropods and bivalves are generally benthos organism and they are regularly used as bio-indicators of aquatic

healthy. Gastropods and Bivalves can produce a billion of larvae in the form of planktons that sustains the biotic population and they have a role in food chain.

The total 19 bivalves belongs 9 families while 39 gastropods belongs 15 families from selected sites of Raigad district coastal molluscan diversity (**Table**

Table -4: Bivalve and Gastropod mollusc of Raigad district coast.

Sl. No.	Families	Species
Bivalves		
1	Arcidae	<i>Arca granosa</i> (Lamarck)
2		<i>Anadara granosa</i> (Linnaeus,1758)
3	Mytilidae	<i>Perna viridis</i> (Linnaeus,1758)
4		<i>Modiolus metacalfei</i> (Hanley)
5	Veneridae	<i>Gafrarium divaricatum</i> (Gmelin)
6		<i>Meretrix meretrix</i> (Lannaues,1758)
7		<i>Marcia opima</i> (Gmelin)
8		<i>Dosinia prostate</i> (Lannaues)
9	Donacidae	<i>Donax incarnates</i> (Gmelin)
10		<i>Donax cuneatus</i> (Lannaues)
11		<i>Donax scortum</i> (Lannaues)
12	Ostridae	<i>Crassostrea cattukensis</i> (Newton & Smith)
13		<i>Saccostrea cucullata</i> (Born,1778)
14	Corbiculidae	<i>Polymesoda maxima</i> (Lamarck, 1818)
Gastropods		
15	Trochidae	<i>Trochus radiatus</i> (Gmelin)
16		<i>Coliostoma speciosa</i> (A. Adams, 1854)
17		<i>Euchelus atratus</i> (Gmelin, 1791)
18		<i>Umbonium vestarium</i> (Linnaeus)
19	Turbinidae	<i>Turbo brunneus</i> (Roeding)
20		<i>Astrarium semicastata</i> (P.Fischer, 1880)
21	Neritidae	<i>Nerita albicilla</i> (Linnaeus, 1758)
22		<i>Nerita oryzarum</i> (Recluz, 1841)
23		<i>Nerita squumulata</i> (Le Guillous, 1841)
24		<i>Nerita planspria</i> (Anton, 1839)
25		<i>Nerita grayana</i> (Recluz, 1843)
26		<i>Nerita chameleon</i> (Linnaeus, 1758)
27		<i>Clithon meticularis</i> (Benson)

28		<i>Clithon smithi</i>
29		<i>Dostia violacea</i> (Gmelin)
30	Nassariidae	<i>Nassarius stulatus</i> (Gmelin, 1791) -
31		<i>Nassarius pullus</i> (Linnaeus, 1758)
32		<i>Nassarius jacsonianus</i> (Quoy & Gaimard, 1833)
33		. <i>Nassarius vittatus</i> (Linnaeus, 1767)
34	Patellidae	<i>Cellana radiata</i> (Born, 1778)
35	Littorinidae	<i>Littorina scabra</i> (Linnaeus, 1758) -
36		<i>Littoria undulata</i> (Gray, 1839)
37		<i>Nodilittorina melanostoma</i> (Gray, 1839)
38		<i>Nodilittorina vidua</i> (Gould, 1859)
39	Planaxidae	<i>Planaxis sulcatus</i> (Born, 1780)
40		<i>Planaxis nicobarica</i>
41		<i>Planaxis</i> sp
42	Cerithiidae	<i>Clypeomorous betilliraeformis</i> (Habe & Kosuge, 1966)
43		<i>Clypeomorous bitasciata</i> (Sowerby, 1855)
44		<i>Cerithium traillii</i> (Sowerby, 1855)
45		. <i>Cerithium</i> spp
46		<i>Cerithium gennesi</i> (Fischer and Vignal, 1901)
47		<i>Cerithium bifaciata</i> (Sowerby, 1855)
48		<i>Cerithium</i> sp
49	Ranellidae	<i>Gyranium natator</i> (Roeding, 1798)
50	Muricidae	<i>Thais blanfordi</i> (Melvill, 1893) -
51		<i>Thais lacera</i> (Born, 1778)

52		Morula nodicostata (Pease, 1868)
53	Muricidae	Morula granulata (Duclos, 1832)
54		Morula marginatra (Blanville, 1832)
55		Thais hippocastanum (Linnaeus, 1758)
56		Mancinella bufo
57	Buccinidae	Engina zea (Melvill)
58	Turritellidae	Turritella duplicata (Linnaeus, 1758)
59	Mitridae	Vexillum ebenus
60	Ellobiidae	Cassidula nucleus (Gmelin, 1791) -
61	Onchidiidae	Onchidium tenerum (Stoliczka, 1869)
62		Onchidium tigrinum (Stoliczka, 1869)

Fauna:

Raigad district can be divided into three conspicuous zones topographically. Coastal zone is covered by vast paddy fields. Central region of the district comprises of fertile low lying areas mostly used for rice cultivation. The eastern parts of the district is cover by the Sahayadri hill ranges having highly uneven surface and natural vegetation on these hills is poor. Forest is mostly confined to south-eastern parts of Raigad district.

Raigad district were once very rich in wildlife which is now very much reduced in these areas due to indiscriminate shooting and poaching in the past. Occurrences of wildlife like Tiger, Panther, Sambar, Chital, Barking deer, Wolf, Wild boar, Jackals, Hares etc was recorded in this region .

Table 5: List of Wild Animals in the Raigad district

Sl.	Common Name / Local	Scientific Name	Schedule of Wild Life Protection
Mammals			
1.	Common Mongoose	<i>Herpestres edwardsii</i>	IV
2.	Indian Fox / Kolha	<i>Vulpes bengalensis</i>	II
3.	Jackal / Khokad	<i>Canis aureus</i>	III
4.	Bonnet monkey /	<i>Macaca radiate</i>	III
5.	Bhekar	<i>Muntiacus muntjak</i>	III
6	Common house Rat	<i>Rattus rattus</i>	V
7	Squirrel	<i>Funambulus pennant</i>	IV

8	Wild Boar / Ran dukkar	<i>Sus scrofa</i>	III
9	Porcupine / Sayal	<i>Hystrix lecura</i>	IV
10	Indian hare	<i>Lepus nigricollis</i>	IV
11	Common Langur	<i>Presbytis entellus</i>	III
12	Indian Field Mouse	<i>Mus booduga</i>	V
Reptiles			
13	Common Krait	<i>Bungarus caeruleus</i>	-
14	Russel's Viper	<i>Vipera russelii</i>	III
15	Cobra	<i>Naja naja</i>	III
16	Yellow Rat Snake	<i>Ptyas mucosus</i>	III
17	Common Skink	<i>Mabuya carinata</i>	-
18	Garden Lizard	<i>Calotes versicolor</i>	-

Community P

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