

15

Reply of MPT / Press Release issued on
5th May 2017 (last date) of hearing)

The Project Proponent was directed by the Chairman to submit a clarification to the Public on their grievances. Authorised Representative of the Project Proponent submitted as follows:

The representative of MPT stated his submissions as follows.

1. The entire land based established of the MPT is located in South Goa state and hence the District Magistrate South is the right person to chair the EPH panel.
2. Port Authorities in the last five decades carrying out Capital Dredging and annual maintenance dredging activities, indicates that the Geological formation in the vicinity of the navigational channel are stable and not prone to landslides.
3. The ship channel which is dredged upto 14.1 to 14.3 below CD and further more till 31.05.2016 includes side slopes in the ratio 1:2 or 45 degree and in such circumstances it is attaining stability. This slope was designed taking into consideration peculiarity of strata present at that particular depth. It is observed after every bathometry in pre and post maintenance dredging that slopes provided for ship channel are stable.
4. Most of the housing colonies that have mushroomed in the recent times on hill slopes close to the MPT are illegal and built with scant regard to town planning and engineering safety ^{norms?} homes. These colonies are not at all threatened by the Port activities and instead are prone to the danger of collapse due to the precarious slopes on which these have been built utilising unsafe construction materials and techniques. It has been observed that most of the houses collapse during the heavy monsoons which are located on hill slopes which get destabilise due to rampart hill cutting and illegal construction. Also there are many illegal houses within the foreshore area which are subject to tidal variations and underground seepage. In addition all the houses being illegal constructions are poorly constructions and therefore fail or show signs of distress due to natural causes.
5. After five decades of activities of MPT, GSL, Navel jetty at Chicalim and scores of Barge building / repair and all long the southern bank of river Zuari, there is no evidence of any significant adverse impact on biodiversity status of Zuari ^{Estuary} Sanctuary and environs. Recent studies conducted by NIO, ICAR, Fisheries department indicate Dona Paula, Grande Island and steady annual yields of Fishery activity in and around the Zuari Sanctuary as per officials published statistical records. The partial study undertaken only shows that

channel side
1:7 slope
Pg 3 Pt 1.31
Form I

there is depletion of the Marine micro organism during dredging activities but no mention is made about extinction of any species. It is well known facts that all forms of life species always tend to relocate in an ambient area due to natural calamities if any, the animals and other living organism always return to the habitat once everything settles down. It has also been scientifically that the regeneration of organisms takes place from time to time depending on environmental conditions. The allegations on effect on fishing activities due to dredging has no merits as there is no written documentation on this issue through the State government.

6. Various NIO and ICAR studies conducted on Marine environment of Zuari Sanctuary and its surrounding, earlier and in the recent past have neither found any significant deterioration in marine bio-diversity ^{or} on any leakage ^{linkage} between port activities and attributes of marine environment. Read letter issued by NIO Scientist Dr. Baban Ingole in 17th March 2015.

- The Chicalim Bay is already under the direct influence of the busy Mormugao, Goa Shipyard Limited and several nearby "barge/ ship" building establishments, most of which are operating for the last several years. Despite the above operations in the vicinity "Chicalim Bay is rich marine biodiversity harbouring more than 200 faunal and 34 phytoplankton species in addition to mangrove and mcarophytes. Natural stocks of windowpane oyster Placuna placenta inhabit the soft, muddy substrate of Chicalim Bay and their population is in healthy conditions. The result of the present study indicate that the condition in Chicalim Bay are ideal for settlement, growth and the production of P. Placenta"
- Windowpane Oysters (WPOs) are included in scheduled IV of the wildlife act. As per the available published research data for Goa, the species is found in the Nauxim bay (Siridao) along the northern bank of Zuari river and Chicalim Bay along the southern bank of Zuari river. Sancoale area is not known (published reports available in public domain) for availability of the same.
- Even though a small number of people consume windowpane oysters in Goa we do not know the extent of its fisheries.
- The first research work on WPOs, in Goa was carried out in Nauxim area (Achuthankutty et al 1979). They reported a catch of 350 to 400

nos. of WPOs per sq mt. Later in 2006 in the same area NIO also reported 335 to 420 nos. of WPOs per sq. mt. (Ingole and Clement 2006). In fact in this paper it was concluded as follows:

- “Even after long lapse of period wherein pollution and other man made activities had taken a tall of most of the flourishing resources of the past, the present scenario of these Oysters appears to be promising. The number of WPOs recorded in the present study is comparable with that observed earlier (Achuthankutty et al 1979). Moreover, only 8 pearls were recorded in a WPO in the 1979 study compared to 14 pearls recorded per WPO in the present study.
- In a recent study conducted between October 2013 and September 2014, the Indian Council of Agricultural Research (ICAR), Old Goa (Goa) identified a total of 186 aquatic species (150 finfish and 36 shellfish) in the mouth of Zuari Estuary. It was evidently reported that the fish and shell fish diversity along the estuarine eco system of Zuari mouth is rich and accounts for a significant quantity of Goa’s Marine and brackish water fish production. The 150 finfish species comprised of 65 pelagic and 85 demersal fishes. The shellfish fauna comprised of 17 crustacean and 19 mollusk species.
- This latest study along with conditions drawn from NIO’s 2006 / 2010 studies cited above, give credence to the view that the “tidal/wave “dynamics and resilience of the vast Zuari estuary has been able to “mitigate” the adverse ecological impact of the functioning of the Mormugao Port, Goa Shipyard, scores of smaller “Barge/ Ship” yards and constant Ore transportation activity, prevailing from 1970 onwards.

7. Port will carry out capital dredging in the same area where in the last five decades maintenance dredging is carried out. This channel is ship channel, movement of ships has been given preference in the ship channel. Fishing any other related to any fishing activity is banned in the ship channel. It is for the safety consideration that no other vessel shall cross the ship channel. Ship channel is well marked by placing buoys on either sides. The buoys are lightened during night, thus it is a well established navigational aid. The buoys are placed at 250 mtr apart.

8. The dredged material is being dumped at a predetermined area which has been located after carrying out proper hydraulic and wave model studies at CWPRS, maintenance dredging is annual activities and dredged material is dumped spoil ground. These spoil ground are chosen in such a way that due to natural sea currents sediments are carried towards north side in the deep sea. It has been proved on the basis of modelling study carried out by CWPRS and also on pre port bathymetry charts. The displacement of the micro organism mainly confined to this dumping ground and it was observed that the local fishermen prefer to carry out these fishing activities very close to the area as it gives this good catch due to favourable condition. Capital and maintenance dredging or any other marine activity is kept well informed to all the stakeholders including fishing community.

9. As per TOR Biodiversity is carried by NIO and it is planned by Port that biodiversity study will be carried out on completion of CD project in the next three year to determine effect on biodiversity.

10. Shore line mentioning study is also carried out by NIO since June 2016 and every six months report are being received by the Port. Reports are sent by NIO every six months.

11. Study of hydrodynamics and siltation carried at wave tranquillity studies carried out in January, February 2016 at CWPRS, Pune, and conclusion of both studies are as follows.

- The main sediment transport mechanism in the Mormugao Port area and near the upstream reaches of Mormugao Bay is due to the suspended sediment transport. The wave induced bed shear stress is mainly responsible for bringing bad material into suspension which is further transported in suspension with prevailing tidal currents to the other areas. The theories those of Gole et 1971 are very useful for preliminary assessment of siltation. For proper prediction of maintenance dredging requirement, however, adequate data of sediment, salinity concentration and physical tidal and wave model studies are of vital importance.
- For the deepening proposal at Mormugao Port Development, the total annual maintenance dredging quantity is predicted to be about 6.0 million meter cube against 3.0 million meter cube at present. More than 90 % of the siltation takes place during the four months of the south west monsoon

season and the total quantity is almost divided equally in the approach channel area and the Harbour area.

- The disposal grounds for the proposed deepening proposal are recommended to be located at UTM 356000 E and 1705000 N in an area of 2. Km x 2.0km at (-) 27.0m contour North of approach Channel.
- The hydraulic models studies carried out on geometrically similar (scale GS1:100) physical wave model indicated that proposed deepening of existing approach channel to -19.8 m and 19.5m below CD in the inner channel, could not cause any adverse effect on existing port operations on account of wave disturbance. Moreover existing wave tranquillity near all berths in Mormugao Port area would improve by 5 to 10% due to deepening of the Channel. The significant wave heights at all berths could not exceed 0.50m for both incident wave conditions, viz. Northwest and West. The significant wave heights near Mooring Dolphins MD-1 and MD-2 would not exceed 0.80m for both incident wave conditions viz. Northwest and West.

Objections raised by the Public

a) Shri Olencio Simoes raised point of order as regards to the clarification to be given by the PP on the various issues raised by him and others during the process of Public Hearing. Further, he also wants to counter the clarification given by the PP.

b) The Chairman informed that as per the EIA Notification, the PP has to submit detailed clarification in the final EIA report which is to be given to EAC. The request to countering the clarifications was rejected.

c) Shri Cyril Fernandes raised another point of order that whatever issues he has stated during his presentation were not clarified by the PP. When the Chairman requested the PP to clarify the issues, the representative of the PP stated that most of the issues raised by them during the process of public hearing is clarified by them and the balance issues will be clarified by them in the final EIA Report and forwarded to EAC. They are not willing to clarify any other issues specially with regards to the ones that were raised by Mr. Cyril that alleged that the EIA study was flawed on account of various issues that were not properly addressed.

d) Sri Dinesh Dias referred to figure 2.2 saying that it is not legible. The Chairman assured to give him a CD which would have some clarity in the pictorial figures. Thereafter wanted clarification on the said figure on page 2.25.

If it makes a mention of turning Circles. The PP initially said it makes mention of only one circle but thereafter upon Dinesh Dias pointing out, he concealed *conceded* that there are two turning circles.