(Published in Part - III Section 4 of the Gazette of India, Extraordinary)

Tariff Authority for Major Ports

G.No. 111 **New Delhi,** **26 March 2015**

NOTIFICATION

In exercise of the powers conferred by Sections 48 and 50 of the Major Port Trusts Act, 1963 (38 of 1963), the Tariff Authority for Major Ports hereby disposes of the proposal received from Mormugao Port Trust for fixation of Reference tariff for deepening of the inner and outer approach channel for capesize and mini capesize vessel under PPP mode, as in the Order appended hereto.

(T.S. Balasubramanian)
Member (Finance)

Tariff Authority for Major Ports

Case No. TAMP/69/2014-MOPT

Mormugao Port Trust - - - **Applicant**

QUORUM:

(i). Shri. T. S. Balasubramanian, Member (Finance)
(ii). Shri. C. B. Singh, Member (Economic)

O R D E R

(Passed on this 25th day of February, 2015)

This case relates to a proposal received from Mormugao Port Trust (MOPT) for fixation of Reference tariff for deepening of the inner and outer channel approach channel for capesize and mini capesize vessel under PPP mode.

2. The Ministry of Shipping (MOS) has issued revised Guidelines for Determination of Tariff for Projects at Major Ports, 2013 under Section 111 of the Major Port Trusts Act, 1963 which is made effective from 9 September 2013. In pursuance of the said guidelines the MOPT has filed the subject proposal for fixing additional port dues for deepening of the approach channel at the MOPT. With reference to the subject proposal clause 2.2. of the revised 2013 guidelines is reproduced below:

> "The Reference Tariff ("the Reference Tariff") for each commodity/category of commodities and each service/category of service or combination of service or services, as the case may be, shall be determined by TAMP for each Port based on a proposal from the concerned major Port. Such proposal shall contain the proposed Reference Tariff and **"Performance Standards"**. The **Reference Tariff** will be the highest tariff fixed for that commodity in the concerned Major Port Trust under the 2008 Tariff Guidelines. In case no tariff has been fixed for that commodity at that Major Port Trust or if the highest tariff fixed for a particular commodity in the concerned major Port Trust does not represent the project proposed to be developed, then concerned Major Port Trust can propose to TAMP any other tariff fixed under 2008 Tariff guidelines in any other major Port Trust which is representative enough for that commodity giving detailed and sufficient justification. While adopting the Reference tariff, the tariff set under the Tariff Guidelines, 2008 shall be escalated to the extent of 60% of WPI per annum, as provided in the said guidelines for the period between 1st January of the year as prescribed in the relevant tariff order of TAMP under 2008 guidelines and 1st January of the subsequent relevant year when the Reference Tariff for the particular project in question is being notified. On receipt of the proposal, TAMP shall notify the Reference Tariff and Performance Standards within 15 days of receipt."

Further, as per clause 2.4. of the 2013 revised guidelines, if no tariff fixed under 2008 guidelines is available the port trust can approach this Authority and this Authority shall determine the tariff by applying the principles of 2008 guidelines within 45 days of receipt of the proposal.

3.1. The MOPT has submitted the subject proposal alongwith the feasibility report undercover of its email dated 23 December 2014 under PPP mode. The points made by the MOPT in its proposal for filing under 2013 guidelines following the principles of 2008 guidelines are summarized below:

(i). The Government has introduced 2013 guidelines for determination of tariffs for projects at Major Ports. These guidelines are applicable for any projects taken up for implementation through private sector participation and Port's own projects.

(ii). As per the 2013 guidelines, the Reference Tariff will be the highest tariff fixed for the commodity under the 2008 guidelines with suitable escalation as provided in the guidelines. In case there is no tariff fixed for a particular commodity under the 2008 guidelines, the highest tariff in the nearest Major Port is to be considered. In case this is also not available, tariffs are to be determined by applying the principles of 2008 guidelines.

(iii). This proposal is based on the 2008 guidelines for fixation of the upfront tariff as there is no comparable project of capital dredging under the PPP model in MOPT or in any other Major Port Trust.

3.2. The main points made by the MOPT in its proposal are summarized below:

(i). The port is strategically located to cater to the needs of the coal requirement for steel and power plants situated in Karnataka. Its main user, JSW steel imports about 7 million tons of coal and exports about 1 million ton of finished steel products through its port. However, their coal requirement is in excess of 15 million tons and have to depend on ports on the Eastern Coast for coal import despite the MOPT being closer to their steel plant. Coal import for JSW is carried out at the berth No.6, which is operated by South West Port Ltd. (SWPL), and berth No.7, operated by Adani Port Terminal Ltd. Coal Importers stand to gain significantly in terms of freight benefit if imports are done through capesize vessels.

(ii). Taking into account the growing competition from private ports and other Major Ports in the vicinity, the MOPT has decided to deepen the approach channel for capesize vessels. The outer channel which is presently dredged to (-)14.40 m is to be deepened to (-)19.80 m and the inner channel from (-)14.10 m to (-)19.50 m. This will facilitate navigation of capesize vessels at any state of tide.

(iii). The exports of iron ore has come to a grinding halt due to ban on its exports imposed by the Supreme Court Order in October 2012. The ban has now been relaxed. However, iron ore exports are yet to gain steam. Even, worldwide iron ore prices have slumped. Since the iron ore markets continue to be depressed and also taking into account that iron ore exports are unlikely to achieve the former glory, export of ore through capesize vessels has not been considered for the purpose of fixation of tariff. Further, berth no. 9 which is a dedicated iron ore berth cannot be deepened for capesize vessels unless some kind of strengthening work is undertaken. Hence, at this stage the port is not contemplating to make any investment for strengthening of berth No.9. Capesize vessels can be topped up at stream after partial loading at berth, a procedure which was earlier adopted.

(iv). According to the Guidelines of 2008, the revenue requirement is the sum of Operating costs and 16% Return on Capital Employed. In the case of Deepening of the Approach Channel, the capital cost will comprise the following:

(a). Cost of Mobilising Resources
(b). Cost of Dredging the Outer Channel from (-)14.40 m to (-)19.80 m
(c). Cost of Dredging the Inner Channel from (-)14.10 m to (-)19.50 m
(d). Cost of De-Mobilising Resources

(v). Capital Cost:

The total capital cost for the entire project is ₹304.66 crores consisting broadly as follows:

(i).	Total Quantity to be dredged	14 million cum.
(ii).	Quantity of rock to be dredged	0.15 million cum.
(iii).	Mobilization cost	₹25.00 Crores
(iv).	De Mob. cost	₹2.70 Crores
(v).	Dredging in ordinary soil 13.85 million cum.@ ₹170/-	₹235.45 Crores

(vi).	Dredging in rock 0.15 million cum. @ ₹1800/-	₹27.00 Crores
(vii).	**Total**	**₹290.15 Crores**
(vii).	Add 5% Miscellaneous Cost	₹14.51 Crores
(viii).	**Grand Total**	**₹304.66 Crores**

(vi). Annual Revenue Requirement:

The Annual Revenue Requirement (ARR) for the proposed project for proposing additional port dues is calculated as below:

Sr. No.	**Particulars**	**₹ in Crores**
(i).	ROCE @ 16%	48.75
(ii).	Maintenance Dredging Cost (70% of 6.00 million Cum.) @ ₹90/Cum	37.80
(iii).	Depreciation @ 3.34%	10.18
(iv).	Insurance @ 1%	3.05
(v).	**Annual Revenue Requirement**	**99.78**

(vii). The revenue required for deepening of the approach channel is proposed to be recovered in the form of additional port dues. The additional port dues which is proposed to be recovered on per GRT basis only from the capesize vessels calling at the port. These capesize vessels are projected to be only foreign vessels. The details of the capesize vessels are as below:

Capesize Vessels	**Vessel parameters**
Average DWT for Capesize Vessels	1,85,000 T
Average GRT for Capesize Vessels	1,00,000 T
Average Parcel Size for Capesize Vessels	1,85,000 T

(viii). Based on the above and the projected coal traffic during the period 2015 to 2029, the rate per GRT is tabulated as below:

Sr. No	**Period**	**Projected Coal Traffic (in Million Tonnes)**	**No. of Vessels**	**Total GRT**	**Rate per GRT(in ₹)**
(i).	2015	9.00	49	4900000	203.63
(ii).	2016	10.00	54	5400000	184.78
(iii).	2017 to 18	12.00	65	6500000	153.51
(iv).	2019 to 20	12.00	65	6500000	153.51
(v).	2021 to 23	12.00	65	6500000	153.51
(vi).	2024 to 26	13.00	70	7000000	142.54
(vii).	2027 to 29	14.00	76	7600000	131.29

3.3. Based on the above, the MOPT has proposed additional port dues as average of 5 years starting from 2016 to 2020 is proposed as below:

Sl. No.	**Vessels**	**Rate per GRT (₹)**	
		Foreign Vessel	**Coastal Vessel**
1.	Vessels above 1,00,000 GRT	158.89	95.33

(*The average rate for five years 2016 to 2020 comes to ₹159.76 per GRT and not ₹158.89 per GRT as proposed by the port)*

3.4. As the present PPP project is first of its kind, the MOPT has proposed to fix the upfront tariff for the initial period of 5 years and revise the same, if necessary, based on the 5 years actuals and revised projections if any.

4.1. It is relevant here to mention that the 2008 guidelines do not enumerate the norms for fixing the tariff for prescribing additional port dues for deepening of the approach channel. Clause 2.4 of the 2013 guidelines requires this Authority to notify the reference tariff and the performance standards. The MOPT has, however, not furnished the performance standards alongwith the proposal. The proposal is also not accompanied with copy of its Board Approval on proposed reference tariff proposal.

4.2. In view of that while acknowledging the proposal, the MOPT was requested vide our letter dated 29 December 2014 to furnish the performance standards and the requisite approval of its Board of Trustees to us and directly to the user associations / PPP operators to be consulted in this case. The MOPT was also requested and to confirm that this action is taken by the port.

4.3. The MOPT, in response, vide its email dated 05 January 2015 has submitted that its Board has approved to take up the project under the PPP mode and has furnished the Board Agenda, Proceedings and Resolution No. 56 of 12.12.2014 for the subject work. Further, the MOPT has submitted that the PPP operator will be required to deepen the channel and later maintain the depths. No operation will be involved since pilotage of vessels will be carried out by the Port. Hence, for this particular proposal performance standards will not be applicable. It has further submitted that the Board approval is being circulated to the PPP operators and user associations.

5. In accordance with the consultative procedure prescribed, the MOPT proposal dated 23 December 2014 was circulated to all concerned users/ user organisations and the prospective PPP operators, as per the list furnished by the port, for comments vide our letter dated 29 December 2014. The comments received from the users / user organisations and prospective PPP Operators were forwarded to MOPT as feedback information. The MOPT has responded to the comments of the said users vide its e-mail dated 04 February 2015 and 10 February 2014.

6. Based on the preliminary scrutiny of the proposal, the MOPT was requested vide our letter dated 21 January 2015 to furnish additional information/ clarifications on various points. The MOPT has, subsequent to the joint hearing vide its letter dated 4 February 2015, furnished its reply on the queries raised. A summary of queries raised by us and the response of the MOPT is brought out in the subsequent paragraph.

7. A joint hearing on the case in reference was held on 22 January 2015 at the MOPT. The MOPT made a brief power point presentation of its proposal. At the joint hearing, the MOPT and the concerned users / users organization, Prospective bidders and PPP Operators have made their submissions.

8.1. As decided at the joint hearing, Adani Mormugao Port Terminal Ltd. (AMPTL) and Mercator Ltd. (ML) were requested vide our letter dated 29 January 2015 to submit in writing the arguments made by them at the joint hearing within five days' time with a copy endorsed to MOPT. M/s. Mercator Ltd. was also requested to furnish documentary evidence in support of the unit rate for dredging rock indicated by them at the joint hearing to MOPT and to this Authority. On receipt of the above written submission/ documentary evidence, the MOPT was to examine the same and furnish its comments thereon within five days thereafter.

8.2. As agreed at the joint hearing, the MOPT was requested vide our letter dated 29 January 2015 to take action and furnish additional information / clarification on the following points:

(i). MOPT to submit its slightly revised proposal immediately and also simultaneously forward it to all the stakeholders, with a request to respond within 3 days thereafter. The MOPT to confirm whether the action on this point is taken by the MOPT.

(ii). MOPT to furnish response to the queries raised by us under cover of our letter dated 21 January 2015 latest by 30 January 2015.

(iii). Mercator Ltd., while furnishing its comments on the proposal which was forwarded to MOPT vide our letter dated 12 January 2015 has sought some information and clarification on few points from the port. The MOPT to furnish the requisite information and clarification to the ML with a copy endorsed to this Authority.

9.1. With reference to point of action decided at the joint hearing brought out in para 8.1. above, the AMPTL vide its email dated 31 January 2015 has furnished its response with a copy endorsed to MOPT. The MOPT, vide its email dated 7 February 2015 submitted their arguments in writing made by them at the joint hearing.

9.2. With reference to point of action decided at the joint hearing brought out in para 8.1. above, Mercator Ltd. (ML) has also, vide its letter dated 4 February 2015 furnished documentary evidence in support of the unit rate for dredging rock indicated by them. The ML has, however, not submitted in writing the arguments made by them at the joint hearing despite reminder letter dated 29 January 2015. A copy of the documentary evidence was forwarded to MOPT as feedback information vide our letter dated 9 February 2015 with a request to examine the documents submitted by ML and furnish its comments immediately. The MOPT, vide its email dated 10 February 2015 has furnished its response which is as below:

(i). Page No. 45 of the dredging report submitted by Tata Consulting Engineers for JNPT highlights the requirement of drilling and blasting the rock and then dredging the same. The total cost of drilling and blasting the rock is ₹2285.14/- per cum and the cost of dredging the pretreated rock is ₹1543.36/- per cum. In the case of MOPT, the rock is a highly weathered rock and does not require drilling and blasting and as such the rate of ₹1800/- per cum is reasonable. The same rate has been tendered at Jaigarh Port of SWPL/JSW who themselves are one of the bidders for the project.

(ii). Only copy of the work order of Visakhapatnam has been attached and no details are available and as such the Port cannot comment on the same.

(iii). The Mumbai Port Trust project also involves pre-treatment of rock with drilling and blasting and hence the rate is high.

9.3. With reference to point of action decided at the joint hearing brought out in para 8.2 (ii) above, the MOPT vide its e-mail dated 4 February 2015 has furnished its response to the queries raised by us vide our letter dated 21 January 2015. A summary of the queries raised by us and reply furnished by the port is tabulated below:

Sl. No.	Queries raised	Reply furnished by MOPT
1.	It is seen from page 4 of the proposal filed by the MOPT for fixation of additional port dues on upfront basis that the proposed upfront tariff is arrived based on the coal traffic projections. Further, the MOPT has also proposed review of the proposed tariff (to be) fixed after five years based on the actual traffic projections. In this regard, the MOPT to address the following points:	
(a)	As per clause 3.3.2. of the upfront tariff guidelines of 2008, upfront tariff is to be prescribed with reference to the optimal capacity of the terminal irrespective of any traffic forecast. The proposal of MOPT seeking	The proposal has been revised based on the optimal capacity irrespective of the traffic projections.

	upfront tariff based on coal traffic projection is not found to be in line with the said provisions of the 2008 guidelines. The MOPT to, therefore, modify the proposal and file a revised proposal based on optimal capacity irrespective of traffic projections.	
(b)	The upfront tariff and reference tariff fixed under the 2008 guidelines and 2013 guidelines respectively are valid for the entire project period subject to annual indexation as prescribed in the ibid guidelines. The guidelines do not provide for review of approved tariff. The proposal of MOPT seeking review of the tariff (to be) fixed after 5 years based on the actual traffic projections is not in line with the 2008 and 2013 guidelines. The MOPT to furnish extraordinary circumstances, if any, in its case for seeking review of tariff after five years. Also, clarify what is the arrangement envisaged by the MOPT to ensure that the successful bidder does not make any windfall gain on review of its tariff after 5 years.	This is a first of its kind PPP project in the country with numerous uncertainties such as the capital cost of the project and the quantity and cost of maintenance dredging. Also, the Port is coming up with various projects within the next 3 years such as conversion of berth nos. 8 and 9 to general cargo berths and Offshore Liquid Handling project which will increase the number of capesize and mini capsize vessels that shall attract the Dredging Levy. This may result in the PPP operator making windfall gains and hence the Port is proposing the review after 5 years which will allow for corrections in the upfront reference tariff. Also, the Tariff Guidelines 2008 do not prescribe any specific norms for Capital Dredging to be taken on PPP mode and hence if justified the Authority could approve the proposed review after 5 years.
(c)	Since the proposal of MOPT is to mainly enable the PPP operator to recover the capital dredging cost, the MOPT may consider to modify the terminology of levy as "Dredging levy" instead of additional port dues as proposed in the proposal.	The terminology has been modified from Additional Port Dues to Dredging Levy in the revised proposal accordingly.
2.	Optimal Capacity:	
(i)	The tariff guidelines of 2008 do not prescribe any specific norms for arriving at the upfront tariff for capital dredging to be undertaken on PPP mode. The guidelines / norms prescribed for fixation of berth hire charge in the upfront tariff guideline of 2008, however, include capital cost relating to dredging cost alongside the berth. It is seen that the MOPT has broadly adopted the parameters / guidelines prescribed in the upfront tariff for berth hire, which includes the capital cost on dredging alongside the berth. In this context, the MOPT to clarify the following points.	
(a)	It appears that the dredging facility will be utilised by capesize vessel carrying coal for berth No.6 of SWPL. It may not be irrelevant to assess the optimal capacity of the project based on the unloading norms prescribed for capesize vessels for a coal unloading terminal. The unloading norms prescribed for a capesize vessel is 50,000 tonnes per day. Considering average parcel size of a capesize vessel as estimated by the port at 185000 tonnes, one capesize vessel will take 3.7 berth days (185000 tonnes / 50000 tonnes per day) to	In the revised proposal now filed, the optimal quay capacity after deepening of the channel for B.No. 6 and B.No. 7 is estimated at 12.39 million tonnes and 8.94 million tonnes respectively with a combined quay capacity of 21.33 million tonnes as shown in the Annexure I to the revised proposal. But, it is also a known fact that the bottleneck is not the quay capacity but the rake evacuation capacity. The combined evacuation capacity for both, berth nos. 6 & 7 is

	unload coal. As per the norms prescribed in the guidelines the optimal number of days in a year is 255.5 days (i.e. 365*70%) for which upfront tariff is to be fixed. Hence, considering the above parameter in a year 69 vessels (i.e. 255.5 days / 3.7 days) can avail the facility of the capital dredging. The number of Capesize vessels expected for each year even during the project period of five year is closer to 69 vessels. The MOPT, therefore, to modify the proposal based on optimum number of vessels and optimum GRT capacity of the vessels in the light of the above observation.	estimated to be 12.71 million tonnes as shown in the Annexure I to the revised proposal. With the implementation of the In Motion Wagon Loading System, the Port is currently handling 9 rakes per day with still time to spare due to unavailability of additional rakes. The cargo carrying capacity is 4000 tonnes per rake which amounts to an evacuation rate of 36,000 tonnes of coal per day. There are no Port holidays for railway operations except for one day in a month for maintenance. This amounts to a total of 353 working days in a year resulting in a total evacuation of 12.71 million tonnes per year. Thus, the combined optimal capacity for berth nos. 6 & 7 is 12.71 million tonnes of coal per year. But, it is also pertinent to note that the evacuation capacity could increase with the availability of additional rakes at the existing loading capacity of the In Motion Wagon Loading System and also doubling of the railway line in the next 5 years, resulting in an additional 3 to 5 rakes per day amounting to a total handling of 12 to 14 rakes per day. This would increase the optimal capacity from 16.94 million tonnes to 19.77 million tonnes as shown in the Annexure I, thus making yet another strong case for review of the Dredging Levy after 5 years. However, the proposal has been revised considering an optimal capacity of 12. 71 million tonnes.
(ii)	MOPT to explain the basis of adopting the vessel parameters of the capesize vessel viz average GRT at 1,00,000 tonnes and average parcel size at 1,85,000 tonnes of capesize vessel. Also to justify the said vessel parameters, with reference to the actual average GRT and actual parcel size of the capesize vessels handled by the MOPT during the last three years 2011-12 to 2013-14 or at any other Major Port Trusts handling capesize vessels.	The Port with its existing channel depth of -14.10 m cannot handle fully loaded Capesize vessels and as such cannot provide any data on capesize vessels handled at the Port. The capesize iron ore vessels loaded were partially loaded at berth no. 9 and uptopped at West of Breakwater by transhippers. Based on the vessel agents and feedback from various other sources, it emerges that the GRT is approx. 60% of the DWT and the parcel size is more or less the same as the DWT for coal bulkers. As such, the vessel parameters have been adopted on the above stated basis.
(iii)	This Authority has passed the following Orders fixing upfront tariff under the 2008 and 2013 guidelines for Mormugao Port Trust: (a). TAMP/23/2008-MOPT dated 7 August 2008 for the Coal handling terminal at	

	berth no.7. (b). TAMP/60/2009-MOPT dated 4 May 2010 for the iron ore handling terminal; and (c) TAMP/21/2014-MOPT dated 30 September 2014 for multipurpose cargo handling terminal As per the proposal of MOPT, capesize vessel likely to avail the benefit of increased draft envisaged by this project are expected to call at berth no. 6 operated by the SWPL. In this regard, the following points to be clarified.	
(a)	The upfront tariff approved of the Authority vide Order No. TAMP/23/2008-MOPT dated 7 August 2008 for coal terminal at berth No.7 considered the share of capesize vessel as 10% in the optimal capacity calculation as proposed by MOPT. That being so, MOPT to explain the reasons for not considering share of capesize vessels likely to call berth no. 7 in arriving at the optimal capacity and the proposed tariff for this project.	The normal vessel classification for Panamax and Mini Cape size vessels are maximum 1,00,000 DWT and 1,25,000 DWT respectively. The consideration of 10% share of capesize vessels in the optimal capacity calculation of Berth No. 7 as proposed by the Port cannot fructify with the existing depth of -14.10 mtrs without deepening of the channel and berth no.7. The channel is now proposed to be deepened to -19.50m to handle capesize vessels, but to handle capesize vessels the berths shall also have to be dredged to -19.50 m. But due to design constraints, only berths 5 & 6 can be dredged to -19.50m thus enabling them to handle capesize vessels of about 1,85,000 DWT whereas berth no. 7 can be dredged only upto -16.50m limiting the vessel size to minicapes of upto 1,25,000 DWT. Hence, no capesize vessels but only Minicape size vessels have been considered at berth no. 7 in this proposal.
(b)	The proposal of the port is restricted to the capesize vessels carrying coal. The MOPT to confirm that vessels bringing cargo, other than coal, are not expected to call MOPT in capesize vessels during the period of this project. Also, confirm the other two PPP projects (iron one terminal and multipurpose cargo terminal) and the MOPT berths are not expected to get the benefit of increased draft from this project. Considering the position that the benefit of dredging project may benefit capesize vessel calling MOPT in a longer horizon of project, the MOPT may consider to modify its proposal to capture the capesize vessels at berth No.7 and other capesize vessels expected to benefit while arriving at the proposed rate. If not, what mechanism is envisaged to ensure that all such vessels availing the benefit of this project pay and at the same time are captured in the optimal	The Dredging Levy for Capesize vessels will only be applicable for vessels calling at berths 5, 6 & 7 and not for those at the existing berths, Mooring Dolphins and Outer Anchorage even if the GRT of the vessel is above 60,000. However, the Dredging Levy shall be applicable to vessels at the existing berths, Mooring Dolphins and Outer Anchorage as and when these are deepened. This levy shall also be applicable to any new berths coming up in the future and also to the existing berths if modernized, rebuilt, strengthened or refurbished. The proposal has been modified accordingly as also the draft Scale of Rates to include the above conditions.

	capacity (in GRT vessel) for arriving at the upfront rate.	
3.	**Capital Cost**:	
(i)	Explain the basis of estimating the mobilisation and demobilisation cost at ₹.25 Crores and ₹2.70 Crores respectively and substantiate the estimations with documentary evidence in form of quotations, rate analysis, etc.	The dredging rates widely vary according to demand situations. In this case, the Port has adopted the rates quoted by a prominent dredging company working at Jaigarh Port which is about 200 kms. from MPT. Dredge depths to be achieved and the length of the channel at Jaigarh is also comparable to that of MPT. Hence the Port is of the opinion that the best option to work out the cost is adopting the rates quoted by the contractor at Jaigarh Port. Hence the estimated amount projected is reasonable. A copy of the e-mail received from the Jaigarh Port officials confirming the dredging rates is furnished.
(ii)	One of the PPP operators consulted on the subject proposal, Mercator Lines in its comments dated 9 January 2015 (which was forwarded to the MOPT vide our letter dated 12 January 2015) has stated that as a general industrial practice demobilisation cost is estimated at 50% of the mobilisation cost whereas the MOPT has estimated demobilisation cost at around 10% of mobilisation cost. The MOPT to address the above observation of Mercator Lines.	
(iii)	MOPT to explain the basis of arriving at the quantum of dredging at 13.85 million cubic metre (cum) of ordinary soil and 0.15 million cum in rock.	The quantum of dredging has been arrived at based on the sub bottom profile studies and bore hole studies. The quantum of dredging has now been revised to 14.90 million cum (0.125 million cum of rock and 14.775 of ordinary soil). This quantum of dredging has been arrived at based on the information received from CWPRS whose final report is awaited and shall be furnished as soon as received
(iv)	The unit rate of dredging cost for ordinary soil at ₹170/- and dredging in rock at ₹1800/- considered in the computation to be substantiated with documentary evidence in form of budgetary quotation, existing dredging contract of MOPT, if any etc.	Reply is same given for point 3 (i) & (ii) above.
4.	**Operating Cost**:	
(i)	Maintenance Dredging:	
(a).	The norm prescribed in the 2008 guidelines for estimating the maintenance dredging cost is 1% of the capex on dredging. Applying this norm, the maintenance dredging cost comes to ₹3.05 crores (₹304.66 crores* 1%). As against that the maintenance dredging estimated by MOPT is ₹37.80 crores. Explain the reasons for deviation from the prescribed norms. The maintenance dredging cost estimated at higher level than the level prescribed in the norm need to be adequately justified and substantiated with similar cost incurred in MOPT or by any other Major Port Trust.	The 2008 Upfront Guidelines stipulate the operating costs of civil assets in the form of repairs and maintenance at 1% of the cost of the civil assets. Also, for arriving at the tariff for berth hire, the capital cost includes i) Cost of construction of Berth and ii) Cost of dredging if any carried out alongside the berth, and the maintenance cost at 1% of the above two costs. It is pertinent to note that usually the cost of dredging alongside the berth is insignificant compared to the cost of constructing the berth. The norm of 1% is suitable for the maintenance of the berth but as the cost of dredging is insignificant compared to the cost of constructing the berth, 1% of the

		dredging cost is also insignificant to affect the viability of the project. But in contrast, this PPP proposal is totally about dredging itself and not involving any civil construction. The dredging cost primarily depends on the quantity of soil to be dredged, the distance of the dumping ground, the type of dredgers required, the mobilisation and de-mobilisation costs involved, etc. The actual dredging costs incurred by the Port during 2013-14 and 2014-15 are ~ 24.59 crores and ~ 27.92 crores respectively, and that too for maintaining the depth at -14.10 mtrs. The maintenance dredging cost considered by the Port in this proposal is based on the estimated quantity of material to be dredged to maintain the depth at -19.50m at the rate quoted by the contractor for the Port's recent maintenance dredging tender. Hence considering the maintenance dredging cost at 1% of the Capital cost would render the project unviable.
(b)	Clause 5.5 of the feasibility report states that the maintenance dredging quantity would be around 5 million cubic meters per annum. While estimating the operating cost, the port has considered the maintenance dredging quantity at 70% of 6 million cum i.e. 4.2. million cum. Explain the reason for applying the multiplication factor of 70%. Also, explain the reasons for the above mismatch in the quantum of silt to be dredged for maintenance purpose.	After commencement of this project, the PPP operator would be responsible for the maintenance dredging of the inner and outer channels and the berths 5,6 & 7 which comprises nearly 70% of the quantity presently being dredged by the Port during maintenance dredging whereas the balance 30% at the Port's own berths would still be maintained by the Port. There is no clause 5.5 in the Feasibility report submitted by WAPCOS but clause 7.5 states that the maintenance dredging quantity would be 6 million cum.
(c)	MOPT to furnish the basis of considering the unit rate of maintenance dredging cost at ₹90 per cum and substantiate it with documentary evidence in the form of existing maintenance dredging contract entered by the port.	The unit rate of maintenance dredging cost at ₹90/- per cum is the rate quoted by the contractor for the Port's recent maintenance dredging tender. The documentary evidence is furnished.
(ii)	**Depreciation:**	
	MOPT to confirm that the rate of depreciation considered in the computation is as per the depreciation rate applicable under Companies Act, 2013.	The depreciation rate under the Companies Act, 2013 for Straight line Method is 3.17% and the proposal has been revised accordingly
5	The port has proposed additional port dues at ₹158.89 per GRT (for foreign going vessel) reportedly based on average of the rate per GRT computed from 2016 to 2020 traffic	The Dredging Levy rate has been revised based on the optimal capacity, the working for which is enclosed.

	projection. Subject to our observation in query at 1 (i) above, it is noticed that the average of rate per GRT in the table at page 4 of the proposal does not come to ₹158.89 per GRT proposed by MOPT. The MOPT to therefore, examine and furnish the correct position supported by workings.	
6.	MOPT to confirm whether the proposed levy for the dredging would not contravene any of the provisions of the Concession Agreement entered by the port with the South West Port Ltd. (SWPL).	It is confirmed that the proposed Dredging Levy does not contravene any of the provisions of the Concession Agreement entered by the Port with SWPL.
7.	**Performance Standards**:	
(a).	Clause 2.2. of the 2013 guidelines requires the Authority to notify the reference tariff and performance standards. Since, the original proposal of the MOPT did not propose the performance standards the port was vide our letter dated 29 December 2014, requested to propose the performance standards as required under 2013 guidelines. In response, the port, vide its letter dated 5 January 2015, has stated that the PPP operator will be required to deepen the channel and later maintain the depths and has stated that for this project, performance standards will not be applicable. Since the tariff guidelines of 2013 mandate the Authority to notify performance standards along with Reference Tariff, the MOPT is once again requested to propose suitable performance standards for this project. The MOPT to examine whether the average draft to be maintained at the approach channel and inner channel at the level envisaged in this project can form the bench mark level for performance standards.	The performance standards as required under the 2013 guidelines have been incorporated in the revised proposal.
(b)	The conditionalities governing the Performance Standard should also be proposed.	
8.	The proposal of the MOPT is not accompanied with the draft proposed Scale of Rates. Please furnish the draft proposed Scale of Rates along with conditionalities.	The proposed draft Scale of Rates is furnished along with the revised proposal.

10.1. With reference to the point of action brought out at para 8.2 (i) above, the MOPT has submitted a revised proposal dated 4 February 2015 for fixation of Reference tariff for deepening of the inner and outer approach channel for capesize and mini capesize vessel, the brief of which is given below.

(i). The MOPT has reiterated the background of the current project which is already been brought out in the paragraph 3.1. and hence not brought out here.

(ii). It has assumed that 10% of vessel handled at Berth Nos. 5, 6 & 7 shall still be Panamax Vessels. All the Vessels are projected to be Foreign Vessels, the details of which are as shown below:

Capesize and Mini Capesize Vessels	Berth No 6 (*)	Berth No 7
Average DWT	1,85,000 T	1,20,000 T
Average GRT	1,11,000 T	72,000 T
Average Parcel Size	1,85,000 T	1,20,000 T

[(*) This is modified by its subsequent email dated 10 February 2015]

(iii). **Optimal Capacity:**

(a). Optimal quay capacity

(i). The optimal quay capacity after deepening of the channel for B. No. 6 and B. No. 7 is estimated at 12.39 million tonnes and 8.94 million tonnes at 70% utilization respectively as below:

Optimal capacity of Berth No.6:

Vessel Type	% Share	Unloading Rate (Tonnes / Day)	Optimal Quay Capacity
Capesize	90%	50000	11497500
Panamax	10%	35000	894250
Handymax	0%	15000	0
Total optimal capacity in tonnes per annum			**12391750**

Optimal capacity of Berth No.7:

Vessel Type	% Share	Unloading Rate (Tonnes / Day)	Optimal Quay Capacity
Capesize	0%	50000	0
Mini capesize	90%	35000	8048250
Panamax	10%	35000	894250
Handymax	0%	15000	0
Total optimal capacity in tonnes per annum			**8942500**

Thus, the combined quay capacity of berth no. 6 and 7 is estimated at 2,13,34,250 tonnes i.e. 21.33 million tonnes.

(b). Optimal cargo evacuation capacity

(i). It is a well-known fact that the bottleneck is not the quay capacity but the rake evacuation capacity. With the implementation of the In Motion Wagon Loading System, the Port is currently handling 9 rakes per day with still time to spare due to unavailability of additional rakes. The cargo carrying capacity is 4000 tonnes per rake which amounts to an evacuation rate of 36,000 tonnes of coal per day. There are no Port holidays for railway operations except for one day in a month for maintenance. This amounts to a total of 353 working days in a year. Thus, at the evacuation rate of 9 rakes per day the combined evacuation capacity for both, berth nos. 6 & 7 is estimated to be 12.71 million tonnes.

(ii). It is noteworthy that the evacuation capacity could increase with the availability of additional rakes at the existing loading capacity of the In Motion Wagon Loading System and also doubling of the railway line in the next 5 years, resulting in an additional 3 to 5 rakes per day amounting to a total handling of 12 to 14 rakes per day.

(iii). Thus, the optimal capacity of cargo evacuation based on number of rakes available would be as below:

No. of Rakes per Day	Quantity Loaded per Rake (Tonnes)	No. of Working Days in a year	Cargo Evacuation per Annum (Tonnes)
9	4000	353	1,27,08,000
12	4000	353	1,69,44,000
14	4000	353	1,97,68,000

(iv). Since the optimal capacity would increase with the availability of rakes, these is a strong case for review of the Dredging Levy after 5 years.

(v). The revised proposal has been framed considering the optimal capacity of coal handling at 12.71 million tonnes for berth nos. 6 and 7.

(vi). (a). The optimal capacity of coal handling arrived at 12.71 MMT has been allocated to berth no. 6 and berth no. 7 as below:

Optimal Capacity (in Million Tonnes)		
Berth No. 6	Berth No.7	Total
9.50	3.21	12.71

[T*he basis of such bifurcation of optimal capacity to berth Nos. 6 & 7 is not explained by the port*].

(b). Thus, considering 10% of vessels handled will be panamax, finally 90% of optimal capacity pertains to capezise/mini capsize vessels i.e. 11.44 MTPA is considered. The breakup of optimal capacity berth-wise alongwith the vessel parameters assumed by the port, is given below:

Coal Cargo capacity (in MTPA)			No. of Capesize and Mini Capesize		GRT of Vessels		
Berth No. 6	Berth No.7 Mini	Total	Berth No. 6	Berth No.7 Mini	Berth No. 6	Berth No.7	Total
8.55	2.89	11.44	46	24	5106000	1728000	6834000

(iv). Capital Cost:

As against the capital cost of ₹304.66 crores estimated in the original proposal, total capital cost estimated in the revised proposal is ₹316.45 crores. A comparative chart of the estimation as per the original proposal and revised proposal is tabulated below:

Sr. No.	Particulars	Original proposal Dated 23.12.2014	Revised proposal Dated 04.02.2015
(i).	Total Quantity to be dredged	14 million cum.	14.90 million cum.
(ii).	Quantity of rock to be dredged	0.15 million cum.	0.125 million cum.
(iii).	Mobilization cost	₹25.00 Crores	₹25.00 Crores
(iv).	De Mob. cost	₹2.70 Crores	₹2.70 Crores
(v).	Dredging in ordinary soil 13.85	₹235.45 Crores	₹251.18 Crores

	million cum / 14.775 million cum. @ ₹170/-		
(vi).	Dredging in rock 0.15.million cum / 0.125 million cum. @ ₹1800/-	₹27.00 cores	₹22.50 Crores
(vii).	**Total**	**₹290.15 Crores**	**₹301.38 Crores**
(vii).	Add 5% Miscellaneous Cost	₹14.51 Crores	₹15.07 Crores
(viii).	**Grand Total**	**₹304.66 Crores**	**₹316.45 Crores**

(v). Operating cost and Annual Revenue Requirement:

The estimated Annual Revenue Requirement (ARR) as per the revised proposal is ₹101.62 crores as against ₹99.78 crores estimated in the original proposal. The estimated operating cost and ARR as per the original and revised proposal is tabulated below:

Sr. No.	**Particulars**	**Original proposal**	**Revised proposal**
		₹ in crores	**₹ in crores**
A.	Operating cost		
(i).	Maintenance Dredging Cost (70% of 6.00 million Cum.) @ 90/Cum	37.80	37.80
(ii).	Depreciation @ 3.17%	10.18	10.03
(iii).	Insurance @ 1%	3.05	3.16
	Total Operating cost	**51.03**	**50.99**
B.	ROCE @ 16%	**48.75**	**50.63**
C.	**Annual Revenue Requirement**	**99.78**	**101.62**

(vi). Proposed Rates:

Consequently, the MOPT has proposed revised rates. In the revised proposal the MOPT has proposed dredging levy in two slabs as against a single slab proposed in the original proposal for vessels above 100,000 GRT at ₹.158.89/GRT for foreign going vessels and ₹.95.33/GRT for coastal vessels. The dredging levy rates proposed by MOPT in the revised proposal is as given below :

Sl. No.	**Vessels**	**Rate per GRT (₹)**	
		Foreign Vessel	**Coastal Vessel**
1.	60001 to 75000 GRT	119.05	71.43
2.	75001 GRT & Above	158.73	95.24

(The MOPT has not furnished any detailed working for arriving of the proposed rate. It is understood that the rate for the first slab of 60,001 to 75000 GRT is proposed at 75% at the rate arrived for the second slab)

Notes:

(1). The above GRT slabs pertain to the size of the vessel. The above rates are to be applied on the total GRT of the vessel and not on incremental basis.

(2). The above levy shall be applicable for vessels calling at berths 5,6 & 7 and not for those at the existing berths, Mooring Dolphins and Outer Anchorage.

(3). The above levy shall be applicable for vessels calling at the existing berths, Mooring Dolphins and Outer Anchorage as and when these are deepened, modernised, rebuilt, strengthened or refurbished.

(vii). Performance Standards:

In the revised proposal the MOPT has proposed Performance Standards for the depth to be maintained at Inner & Outer Approach Channel as given below:

Performance Standards

Location	Depth to be Maintained
Inner Channel	-19.50 M to -19.80 M
Outer Channel	-19.80 M to -20.10 M

(viii). The MOPT has furnished revised proposed SOR alongwith its proposal.

10.2. As agreed at the joint hearing, the MOPT vide its email dated 4 February 2015 has forwarded a copy of the revised proposal dated 4 February 2015 to concerned users/ Prospective PPP operators with a request to furnish their views / comments to this Authority within 3 days' time.

10.3. The Dharti Dredging and Infrastructure Ltd. (DDIL) has furnished its comments on the revised proposal with a copy endorsed to MOPT vide its email dated 9 February 2015. M/s. Adani Mormugao Port Terminal Pvt. Ltd. (AMPTPL), vide its email dated 11 February 2015 has attached its letter dated 7 February 2015 furnishing its comments on the revised proposal. These comments were forwarded to the MOPT on 11 February 2015 for furnishing its comments thereon immediately. The MOPT vide its emails dated 10 February 2015 and 12 February 2015 has furnished its comments thereon.

11. The MOPT, while furnishing its comments on the comments of Mercator Limited, SWPL and GMOEA vide its email dated 10 February 2015 has made following changes to the revised proposal filed vide its email dated 4 February 2015. The main changes requested by MOPT are brought out below:

(i). Replace the Performance Standards as below:

Location	Depth to be maintained
Inner Channel	Minimum -19.50m
Outer Channel	Minimum -19.80m

Note: The depths to be maintained are immediately after completion of the maintenance dredging every year.

(ii). Replace the note 3 to the proposed SOR as follows:

"This levy shall also be applicable to any new berths coming up in the future and also to the existing berths if deepened."

12. The proceedings relating to consultation in this case are available on records at the office of this Authority. An excerpt of the comments received and arguments made by the

concerned parties will be sent separately to the relevant parties. These details will also be made available at our website http://tariffauthority.gov.in.

13. With reference to totality of the information collected during the processing of this case, the following position emerges:

(i). The proposal of the Mormugao Port Trust (MOPT) is to fix reference tariff cap for its project of deepening of the inner channel (which is presently at 14.10 mtrs.) to 19.50 mtrs and deepening of the outer channel (which is presently at 14.40 mtrs) to 19.80 mtrs. under Public Private Partnership (PPP) mode. The MOPT is not a deep draft Port. In order to make it a deep draft port capable of handling capsize / mini cape size vessels, this project is proposed to be undertaken by the MOPT on PPP mode for which reference tariff in the name of dredging levy is proposed. This is the first experiment in the major port sector to take up Capital Dredging project on PPP model as rightly reported by port.

(ii). (a). Clause 2.4 of the tariff guidelines of 2013 stipulates that if in the view of the Major Port Trust, the tariff determined for a particular commodity under 2008 guidelines at that Major Port Trust or any other Major Port Trust is not a representative Reference Tariff for that commodity, then the Major Port is free to approach this Authority with a proposal to fix Reference Tariff under 2008 guidelines for the project giving detailed and sufficient justification.

(b). This project is first of its kind and hence no upfront tariff tariffs so far is determined in its port or any other Major Port Trust under the 2008 tariff guidelines or by applying the principles of 2008 guidelines. That being so, it has filed the proposal under 2013 guidelines following the principles of 2008 guidelines.

(iii). Before proceeding ahead with analysis of this case, it is relevant here to state that the tariff guidelines of 2008 for upfront tariff fixation prescribe norms/ guidelines for dedicated facilities such as coal, iron ore, container, liquid handling terminal and multipurpose cargo terminal. The guidelines of 2008 for upfront tariff fixation do not prescribe any exclusive norms / guidelines for deepening of channel at Major Port Trusts.

In the absence of any specific norms prescribed in the 2008 guidelines and in view of urgency expressed by the MOPT for seeking reference tariff for this project which is one of the Projects included by the Ministry of Shipping (MOS) in Shelf of Projects for the year 2014-15 and the proposal being filed in the fag end of the year, this Authority has no other option but to rely on the parameters and approach adopted by the MOPT in its proposal for arriving at the proposed reference tariff.

This matter is, however, being referred to the MOS separately bringing out the above position and seeking the benefit of views of the MOS which, if received, will be applied in future reference tariff cases of similar nature. By way of abundant caution, it is clarified that consideration of parameters adopted by the MOPT is only with the limited extent of determining the reference tariff for this project and should not in any way be construed as this Authority approving the parameters adopted by the MOPT as norms for such projects.

(iv). As brought out in the earlier paragraph bringing out the factual position, the original proposal filed by the MOPT was based on the coal traffic projections for the period of five years 2016 to 2020 and was in single slab for vessels above 1,00,000 GRT. On being pointed out that its proposal seeking reference tariff based on traffic projection is not found to be in line with the fixation of reference tariff based on normative capacity, the MOPT has filed a revised proposal dated 4 February 2015. In the revised proposal the port has proposed tariff in two tier GRT slabs based on the normative optimal capacity for coal handling at berth no. 6 operated by one of the BOT operators viz. South West Port Limited (SWPL) and Berth No 7 operated by another BOT operator viz. Adani Mormugao Terminal Private Limited (AMTPL). The port has modified the capital cost and has also proposed performance standards in the said revised proposal dated 4 February 2015. Subsequent to filing of the revised proposal in February 2014, MOPT based on the input of one of the prospective BOT operator i.e. AMTPL has further modified the proposed performance standard vide its email dated 10 February 2014. The final communication furnishing its comments on the comments of the AMTPL is received from the MOPT on 12 February 2015.

The final revised proposal of the MOPT dated 4 February 2015 and 10 February 2015 along with the information / clarifications furnished by the port during the processing of the case is considered in the analysis.

(v). For arriving at the optimal capacity for the proposed project, the port has assessed the optimal (quay) capacity and optimal cargo evacuation capacity of the coal handling berths viz. berth nos. 6 and 7.

The MOPT has reported that presently, there are two BOT operators handling coal. One of the BOT operators i.e. SWPL has two berths viz. berth no.5 and berth no.6. Berth no 5 is reportedly for handling steel and other cargo and berth No 6 is for handling coal. The MOPT expects the benefit of deepening will be availed only by coal vessels handled by SWPL at berth No 6.

For the purpose of reference tariff fixation, the MOPT has assessed optimal capacity with reference to berth no.6 handling coal vessels. The MOPT has reported that the other BOT operator Adani Mormugao Port Terminal Ltd. (AMPTL) has also commenced its operations from June 2014 at berth no.7 which is a coal terminal. Thus, in short, the MOPT has assessed the total optimal capacity for the proposed project based on the optimal capacity of coal handling at berth Nos 6 and 7. Some of the points relating to the assessment of optimal capacity are discussed below:

(a). One of the bidders, ML, has sought the port to share the plan how general cargo will be handled at berth no.5. The port has reported that maximum GRT of the vessels handled at Berth Nos. 5, 6 & 7 till now with existing drafts is 60,000 GRT. With the proposed deepening of inner and outer channel, Berth No 6 will be able to handle cape size vessels of 185000 DWT. The MOPT has stated that once the deepening process is completed, berth no.5 of SWPL will also be partially occupied for handling of a cape size vessels at berth no.6. Berth No. 6 as well as part of Berth No. 5 will be utilized for berthing of cape size vessels. Since the concessionaire for both the berths is the same operator, berthing of a capesize vessel may not pose any issues. The optimal capacity is assessed by the MOPT, however, with reference to berth No 6 which will mainly be handling cape size vessel. The MOPT has addressed the clarifications sought by the ML from the port on various other points. The MOPT should also share all the technical details and feasibility report with bidders as agreed by it.

(b). As regards berth no. 7, the existing draft alongside the berth is 14.50mtrs. as reported by AMPTL. Both the port as well the AMPTL have confirmed that berth no.7 can be dredged only upto (-)16.50m keeping in view the design and construction of berth envisaged in the Concession Agreement entered into between AMPTL and MOPT. This will limit the vessel size to mini cape size vessel at berth no.7. Both MOPT and AMPTL have confirmed that no cape size vessels can be handled at berth No 7 due to the design of the berth. Hence, in the reference tariff fixation the MOPT has proposed the dredging levy only on mini cape size vessels with reference to berth no. 7.

Citing a Concession Agreement clause, the AMPTPL has stated that there should not be any additional burden by way of dredging levy on vessels calling AMPTPL from this channel deepening project proposed by the MOPT. The MOPT on examining the point made by the AMTPL has stated that the clause stipulating the dredging alongside the berth no. 7 was inserted in the Concession Agreement to consider the eventuality of dredging of the channel beyond the existing -14.10m at some later date and to enable berth no. 7 to handle larger vessels if and when the dredging is carried out. It has argued that nowhere in the Concession Agreement it is provided that the dredging to depths of -16.50m if carried out would be provided free of cost without increase in Port Dues. Considering the scenario that if this deepening project was undertaken by the Port itself, then also this Authority would have considered the capital and maintenance cost for revision of the Scale of Rates of the port. The only difference now is that instead of Port collecting the Dredging Levy, it will be collected by the PPP operator. Interestingly, as per the Concession Agreement it is the responsibility of AMPTPL to dredge access to the berth No. 7 from the channel to facilitate bigger vessels calling at its berth apart from dredging alongside the said berth. The MOPT has stated that the capital dredging from the channel to berth and alongside the berth no 7 will be done by the PPP operator of this project which will be a direct cost savings to the AMPTPL. Further, the port recognising the fact that of 19.50 mtrs deepening envisaged in this project, the benefit of increased draft available at berth No 7 will only be upto 16.50 mtrs, it has itself proposed rate in two tier slabs. The MOPT in the revised proposal has proposed lower rate for the first slab i.e. vessel rom 60,000 GRT to 75000 GRT which are expected to call berth no 7 by allowing 25% concession in the rate in comparison to the rate applicable for the second slab for vessels above 75000 GRT. The MOPT has also furnished an analysis of freight advantage likely to accrue to vessel agent by bringing vessels upto 75,000 GRT instead of vessel size of maximum 60000 GRT presently handled at the port. The port has submitted that for the first slab dredging levy proposed to be collected is ₹119.05 per GRT i.e. converted into per tonne at ₹71.43 per tonne (applying factor of 60% to convert from GRT to tonnage). Considering the freight is to the tune of USD 3 to 4 per tonne of cargo, the MOPT has stated that net savings in freight shall be to the tune of USD 1.81 to 2.81 per tonne of cargo. Further, the port has also clarified that the proposed levy will apply only if vessels more than 60,000 GRT call berth no 7. It will not be levied if the present vessel size which are reported to be lower than 60,000 are handled. Based on the clarifications furnished by the port, the proposal of the port to include minicape size vessels i.e. above 60,000 GRT upto 75000 GRT in reference tariff computation is considered.

(c). When the port was requested to confirm that the other two PPP projects (iron one terminal and multipurpose cargo terminal) and port own berths are not expected to get the benefit of increased draft from this project the MOPT has categorically stated that dredging levy shall be applicable to coal vessels at berth Nos 6 and 7 only at present. Berth no. 9, which is a dedicated iron ore berth, cannot be deepened for capesize vessels unless some kind of strengthening work is undertaken. The port is not contemplating to make any investment for strengthening of berth No.9 at this juncture and hence that is also kept out of the purview of this project at this juncture. It has also clarified that at present the Dredging Levy shall be applicable only to vessels at berth nos. 6 and 7 and the existing iron ore vessels shall not attract the Dredging Levy unless the area alongside the other existing berths, Mooring Dolphins and Outer

Anchorage are deepened. The above position furnished by the MOPT which forms the crux for fixation of reference tariff is relied upon. In any case, the proposal of the port envisages review of the tariff after five years which is being discussed in the subsequent paragraphs.

(vi). **Optimal Capacity**:

(a). Optimal capacity based on the handling rates:

(i). Optimal capacity based on the handling rates is assessed by MOPT for berth Nos. 6 and 7 at 12.39 Million Tonnes Per Annum (MTPA) and 8.94 MTPA respectively aggregating to 21.33 MTPA.

(ii). The percentage share of capacity of panamax vessel and cape size vessel for berth No 6 assumed by the MOPT at 10% and 90% respectively is relied upon in this analysis.

As regards the Berth No 7, the share of capacity of panamax vessel and mini cape size vessel assumed by the MOPT is 10% and 90% respectively. It is relevant here to state that the MOPT while determining the upfront tariff in August 2008 had assumed the share of cape size vessel, panamax vessel and handy max vessel at 10%, 80% and 10% respectively which was relied upon while approving the upfront tariff for coal terminal. The share of panamax vessel and mini capsize vessel now considered by the MOPT at 10% and 90% for berth No 7 differs from the share of vessels earlier furnished by the port for determination of upfront tariff which was approved by this Authority. The reasons for change in the share of vessel now assumed by the MOPT remains unexplained by the port. In any case, the optimal quay capacity is not a limiting factor in the current proposal nor was it a limiting factor while determining the upfront tariff for berth no 7. The share of capacity of panamax vessel at 10% and mini cape size vessel at 90% for berth No 7 assumed are relied upon in the current exercise for this project.

(iii). The handling rate for cape size vessel and panamax vessel is considered at 50,000 tonnes per day and 35000 Tonnes / day respectively which is as per the handling rate prescribed in the upfront tariff guidelines for coal unloading terminal. For mini cape size vessel also, the MOPT has considered the handling rate of 35000 Tonnes/ day adopting the handling rate norms prescribed for panamax vessels. The tariff guidelines of 2008 prescribe handling norms for cape size, panamax and handy max vessels. There is no category as mini cape size vessel. In the absence of any specific handling norm for mini cape size vessel in 2008 guidelines handling rate considered by MOPT for mini cape size vessels at the level of panamax vessel at 35,000 tonnes is considered. In any case, the optimal (quay) capacity is not a limiting factor in the instant case and hence this modification is not going to have any impact on the reference tariff determination.

(iv). Based on the handling rates and applying the formula prescribed in the upfront tariff guidelines for coal terminal the optimal (quay) capacity of berth nos. 6 and 7 is assessed at 21.33 MTPA by the MOPT.

(b). Optimal cargo evacuation capacity:

(i). The optimal cargo evacuation capacity of these two berths is assessed at 12,70,8000 tonnes (i.e. 12.71 MT) per annum.

(ii). For assessing the optimal cargo evacuation capacity, the port has considered cargo carrying capacity of 4000 tonnes per rake. The parameter of 4000 tonnes per rakes is reportedly based on the Railway standards of carrying capacity of wagons at 68 tonnes and average 59 wagons for each rack. This position is relied upon.

(iii). The tariff guidelines of 2008 prescribes a norm of 70% as the optimal utilisation factor. The port has, however, stated that there are no Port holidays for railway operations except for one day in a month for maintenance and hence the optimal capacity for cargo evacuation is assessed by the port for a total of 353 working days in a year (365 days – 12 days for maintenance).

(iv). Citing that availability of rake is constraint in MOPT and based on present availability of a rakes / day with commencement of in motion wagon loading, the port has assessed the optimal cargo evacuation capacity at 12,70,800MT (i.e. 4000 tonnes/rakes * 9 rakes/day * 353 days). The port has stated that evacuation capacity could increase with the availability of additional rakes at the existing loading capacity of In Motion Wagon Loading System and also when the doubling of the railway lines which is in pipeline is completed. On these two accounts, the MOPT expects additional 3 to 5 rakes per day will be available in next 5 five years amounting to a total handling of 12 to 14 rakes per day. Citing this, the port has while assessing the optimal capacity at 12.71 MTPA for 9 rakes per day. The MOPT has also furnished the optimal cargo evacuation capacity at 16.944 MTPA if 12 rakes/ day are available and 19.768 MTPA if 14 rakes per are available. This increased optimal capacity are furnished by the MOPT to justify the need to review to reference tariff after five years. But, for the current exercise for reference tariff determination, the port has considered the optimal cargo evacuation capacity at 12,70,800 MT.

(v). As stated earlier, the upfront tariff guidelines of 2008 do not prescribe any norms for cargo evacuation capacity. Hence, the approach and the basis adopted by the MOPT for arriving at the optimal cargo evacuation capacity of the Coal terminal at berth nos. 6 and 7 is relied upon. Thus, the cargo evacuation capacity as assessed by the MOPT at 12.71 MTPA is relied upon.

(c). Optimal Terminal Capacity:

The lower of the two capacities comes to 12.71 MTPA. It is relevant to state that 12.71 MTPA is the total optimal capacity of berth nos 6 and 7 including panamax vessel, capsize and mini capsize vessel. The port has segregated total optimal capacity of 12.71 MTPA between two berths at 9.50 MTPA for berth no 6 and 3.21 MTPA for berth no. 7. It is understood from the port officials that this segregation is based on the coal traffic presently handled at SWPL and expected to be handled at the SWPL and the remaining optimal capacity is allocated to berth no.7. In the absence any basis made available by SWPL for this segregation, the optimal capacity segregated by MOPT between the two berths is relied upon. Since the benefit of deepening is expected to benefit vessels above 60,000 GRT, the port has excluded the share of panamax vessel from the total optimal capacity for determination of reference tariff.

For this purpose, the MOPT has excluded 10% of the optimal capacity which pertains to share of panamax vessel and finally considered 90% of the optimal capacity pertaining to cape size/ mini cape size vessel (i.e. 12.71 MTPA * 90%) =11.44 MTPA. Following the above approach the optimal capacity of vessels at berth No 6 is also adjusted by the MOPT at 8.55 MTPA for berth No 6 i.e. 90% of 9.80 MTPA and 2.89 MTPA for berth no 7 at 90% of 3.21 MTPA to consider only the optimal capacity of cape size vessel for berth no 6 and mini cape size vessel for berth no 7 . As stated earlier for fixation of reference tariff the total optimal capacity assessed by MOPT at 11.44 MTPA and segregation between the two berths at 8.55 MTPA for berth No 6 and 2.89 MTPA for berth No 7 as furnished by MOPT is relied upon and considered.

(vii). **Capital Cost**:

(a). The capital cost estimated by the MOPT comprises of mobilisation cost, demobilization cost and capital dredging cost. As stated earlier there are no norms prescribed in the tariff guidelines of 2008 for determination of reference tariff for deepening of inner and outer channel and this is the first experiment in the Major Port Trusts in India to go under PPP model. In the absence of any norms for this kind of project the list of items included in the capital cost are considered as estimated by the MOPT.

The port has adopted unit rate of ₹170/- per cum for estimating capital dredging of soil and ₹1800/- per cum for capital dredging of rock.

(b). The quantum of capital dredging estimated by the MOPT at 14.775 million cum of soil and 0.125 million cum of rock in its revised proposal dated 4 February 2015 is reportedly based on the information received from Central Water and Power Resources Station (CWPRS), which is relied upon.

(c). One of the prospective bidders M/s Mercator Limited (ML) has stated that the unit rate considered by MOPT for capital dredging of rock at ₹1,800 per cum is too low. The present unit rate is in the range of ₹5,000 to ₹8,000 per cum as per ML. The other prospective BOT operator M/s. Dharti Dredging and Infrastructure limited (DDIL) has also made similar observation that the unit rate for capital dredging is not less than 4000/- per cum. Both the ML and DDIL have requested MOPT to relook the capital dredging cost. ML has also stated that demobilisation cost should normally be 50% of mobilization cost i.e. 50% of ₹25 crores instead of around 10% of mobilization cost i.e. ₹2.70 crores considered by the port.

In view of the above submissions made by prospective bidders, at our request ML has furnished documentary evidence in support of the unit rate for dredging rock at Jawaharlal Nehru Port Trust (JNPT), Mumbai Port Trust (MBPT) and Visakhapatnam Port Trust (VPT) which was shared with the MOPT to examine the same. The MOPT after examining the documentary evidence furnished by the ML in form of dredging contract at Jawaharlal Nehru Port Trust (JNPT) has stated that at JNPT, the service provider was required to carry out drilling and blasting of the rock and then dredging of the same. As per MOPT after examining the documentary evidence furnished by ML, the total cost of drilling and blasting of the rock is ₹2285.14 per cum and the cost of dredging the pretreated rock is ₹1543.36/-per cum. The MOPT has stated that even the dredging project at MBPT involves pre-treatment of the rock with drilling and blasting and hence the rate is high. In the case of MOPT, however, the port has reported that the rock is a highly weathered rock and does not require drilling and blasting and is confident that the unit rate of ₹1800/-per cum adopted by it for estimating the capital cost of dredging rock is reasonable. The port has further justified that it has adopted the rates quoted by a prominent dredging company working at Jaigarh Port which is about 200 kms. from MOPT and dredge depths to be achieved and the length of the channel at Jaigarh is also comparable to its project. The MOPT has also furnished a copy of the negotiated rate of ₹170/- per cum for dredging soil and ₹1800/- for dredging rock obtained by it from Jaigarh Port which has been adopted by the port for the project. Since the MOPT is confident of the unit rate adopted by it and has emphasized that the rate adopted by the port is reasonable which is also justified with documentary evidence, capital cost as estimated by the port is relied upon and considered in this analysis.

(d). The port has considered miscellaneous capital cost at 5% of the total capital cost which is as per the norms prescribed in the 2008 guidelines.

(e). The total capital cost is considered at ₹316.45 crores at the level estimated by the MOPT

(f). Return on capital employed is estimated at 16% of the estimated capital cost as per the norms prescribed in the guidelines.

(viii). **Operating Cost**:

The operating cost estimated by the MOPT includes maintenance dredging cost, depreciation and insurance. In the absence of any specific norms for fixation of reference tariff for channel dredging prospect, it is seen that, the MOPT has adopted the norms prescribed in the 2008 guidelines for fixation of berth hire charge for the purpose of estimating the operating cost this project. The estimation of operating cost is discussed hereunder:

(a). The MOPT has stated that after commencement of this project, the PPP operator would be responsible for the maintenance dredging of the inner and outer channels and the berths 5, 6 & 7. Considering the quantum of maintenance dredging at 70% of 6 million cum i.e. 4.2. million cum and applying unit rate of ₹90 per cum, the MOPT has estimated maintenance dredging cost at ₹37.80 crores per annum.

The upfront tariff guidelines prescribe norm of 1% of the capital cost of construction of berth and cost of dredging carried out alongside the berth for estimating the operating cost for berthing services. When requested the port to justify the estimation of maintenance dredging cost at level higher than the prescribed norm, the port has clarified that the norm of 1% prescribed in the 2008 guidelines is for maintenance of the berth dredging alongside the berth. The port has argued that usually the cost of dredging alongside the berth is insignificant. But in contrast, its current PPP project is totally about dredging itself and does not involve any civil construction. The port has justified that the actual dredging costs incurred by the Port during 2013-14 and 2014-15 are ₹24.59 crores and ₹27.92 crores respectively, and that too for maintaining the depth at (-)14.10 mtrs. The current proposal envisages the operator to maintain the depth at 19.50mtrs. at the inner channel and 19.80mtrs. at outer channel which forms the basis for performance standards. The clarification furnished by the port is taken into account.

(b). The quantum of silt to be dredged considered by the MOPT for estimating the maintenance dredging cost is 70% of 6 million cum i.e. 4.2. million cum. The ML has pointed out that siltation quantum may vary from the level assumed by MOPT and has requested to keep a cap on the maintenance dredging quantity and devise a mechanism that if the quantity of silt to be dredged is found less than the cap, then the Bidder will pass on the benefit to port and if it found to be more, port will have to compensate the Bidder for the additional cost towards maintenance dredging. The port has not proposed any modification on this item in its revised proposal of February 2014. The MOPT has clarified that the total quantum of 6 million cum of silt to be dredged is based on the study conducted by Central Water and Power Research Station (CWPRS) based on the current siltation at the port. The port envisages the PPP operator to dredge 70% of total maintenance dredging quantity of 6 million cum for maintaining the depth at inner and outer channel at the minimum level prescribed in the performance standards and berth nos. 5, 6 and 7 and the remaining 30% of maintenance dredging quantum will reportedly be undertaken by the port pertaining to port's owned berth. The port is confident that based on its past experience siltation quantum predicted by CWPRS are reliable. In view of the above position brought out by MOPT, this Authority decides to go ahead with the estimation furnished by the port for this cost item.

(c). The unit rate of maintenance dredging cost is estimated at ₹90/- per cum. The port has justified the said unit rate on the ground that it is the rate quoted by the contractor for the Port's recent maintenance dredging contract and hence is relied upon. As regards the point made by ML that the unit rate of ₹90 will vary in future due to fluctuation in fuel price, it is relevant to state that as per the 2013 guidelines the reference tariff approved by this Authority is subject to annual indexation at 60% of the WPI which should take care of the inflation in the fuel cost pointed out by ML.

(d). In view of the position brought out at para (a) to (c) above, the maintenance dredging cost of ₹37.80 lakhs as estimated by the MOPT is relied upon and considered.

(e). The MOPT has estimated insurance cost at 1% of the total capital cost and has also estimated deprecation on the total capital cost. In this regard it is relevant to state that although the tariff guidelines of 2008 restricts the operating cost at 1% of the berth cost and dredging for arriving at the berth hire charges, it cannot be denied that any the asset requires adequate insurance coverage and the fact that the value of the asset will depreciate due to wear & tear can also not be denied. While fixing upfront berth hire for other Major Port Trusts including coal terminal at the MOPT, this position was recognised and the cost of insurance and depreciation was considered by this Authority to assess the annual revenue requirement from berthing services at other Major Port Trusts.

In view of the position explained above, the approach adopted by the MOPT of applying the norm for estimating insurance cost at 1% and depreciation on the capital cost is considered in this case also while estimating the operating cost.

As regards depreciation, the MOPT in its revised proposal has considered depreciation @ of 3.17% reportedly based on the rates applicable as per Companies Act, 2013 under straight line Method. It is relevant to state here that in other cases, the depreciation has been considered @ 3.34%. Since the depreciation rate considered by MOPT @ 3.17% is very much closer to 3.34% considered in other cases and also recognizing the fact that it is not likely to have any significant impact on the reference tariff computation, the deprecation is retained at the level estimated by the MOPT.

(f). Based on the above analysis, the total operating cost for Channel Deepening Project is considered at ₹51 crores as estimated by the MOPT.

(ix) The total Annual Revenue Requirement (ARR) of this project estimated by the MOPT is ₹101.62 crores which is an aggregate of 16% return on the capital cost estimated at ₹50.63 crores and operating cost of ₹51 crores. The ARR as estimated by the MOPT is considered subject to some minor change due to totaling which comes to ₹101.63 lakhs instead of ₹101.62 lakhs estimated by the MOPT.

(x). The statement for fixing upfront tariff as submitted by the MOPT and considered by this Authority along with detailed calculation for arriving at the rate in line with the above analysis is attached as **Annex – I.**

(xi). The entire estimated revenue requirement is proposed to be recovered from the dredging levy. The port has proposed the dredging levy on per GRT basis to recover the entire estimated ARR. For this purpose, it has assumed the parcel size of cape size and mini cape size vessel at 1,85,000 tonnes and 1,20,000 tonnes respectively and average GRT of this two categories of vessel is assumed at 1,11,000 GRT and 72,000 GRT respectively. The port has confirmed that the vessel parameters adopted by it is based on the feedback obtained by it from vessel agents and other sources. The vessel parameters adopted by the MOPT are relied upon.

For arriving at the rate, the port has arrived at number of cape size vessels for berth no 6 and mini cape size vessel at berth no 7 at 46 and 24 respectively considering the optimal capacity of 8.55 MTPA for berth No 6 and optimal capacity of coal cargo by mini capesize vessels at 2.89 MTPA for berth No 7 and dividing it by the average parcel size of the two categories of vessels.

The port has in the revised proposal of 4 February 2014 proposed dredging levy in two tier slabs viz. vessels of 60,000 GRT to 75000 GRT and vessel above 75000 GRT. As explained earlier, the port has justified the reasons for proposing concessional rate i.e. concession of 25% for the first slab as compared to the rate for the second slab i.e. above 75000 GRT so as to encourage the handling of mini cape size vessels at berth no.7. In short, this means the rate for the first slab is arrived at 75% of the rate for the second slab. Based on the revised proposal of the MOPT and the approach explained by the port, a working is done to show the detailed calculation for the proposed rate arrived by the MOPT and considered by this Authority which forms as part of **Annex-I**.

Normally vessel related charges for foreign going vessels are denominated in US dollar terms by converting the rupee value to dollar terms by applying the exchange rate prevailing at the time of notification of the relevant tariff order. This Authority, however, while finalising the upfront berth hire / reference berth hire at other major port trusts has already decided to approve the upfront berth hire charge in Rupee terms only for the stated reasons. Hence the current proposal of the MOPT proposing dredging levy proposed in rupee terms is approved by this Authority.

Based on the above analysis, rate proposed by the MOPT for dredging levy at ₹119.05 per GRT for vessels of 60001 to 75000 GRT and ₹158.73 per GRT for vessels of 75001 GRT and above for a foreign going vessel is approved. The port has also proposed rate for coastal vessel at 60% of the rate prescribed for its foreign counter part. The rate proposed for coastal vessel is 71.43 per GRT for vessels of 60001 to 75000 GRT and ₹. 95.24 per GRT for vessels of 75001 GRT and above. The revenue impact of concession rates for coastal vessel is, however, not considered while arriving at the proposed concessional tariff for coastal vessel. Since the port has reported that only foreign–going vessel will avail the benefit of the proposed project, prescribing concession rate to coastal cargo / vessel will not have any impact on the revenue realization and hence concessional rate is prescribed for coastal category as proposed by the MOPT in line with the Government policy in this regard.

(xii). The MOPT has sought review of the proposed reference tariff after five years for two vital reasons. As already brought out in the earlier paragraphs, the reference tariff in this exercise is determined based on the coal vessels at berth no 6 and 7 presently likely to avail the benefit of deepening of the inner and outer channel dredging as per the port. The MOPT has, however, strongly viewed that there can be other PPP projects which may benefit in future due to this capital dredging project. Moreover, the iron ore vessels handled at existing berth no 9 by the MOPT and other existing port berths, Mooring Dolphins and Outer Anchorage which are presently excluded from the purview of reference tariff fixed for this project may avail benefit of this deepening project if these berths are deepened in future during the project period. Another important factor is the optimal capacity of 12.71 MTPA considered for reference tariff fixation is based on availability of 9 rakes per day which is a major constraint as reported by the port. The MOPT has itself assessed the optimal capacity to increase to 16.94 million tonnes and 19.77 million tonnes if number of rake availability is increased to 12 and 14 rakes per day respectively due to railways increasing the rakes and with doubling of railway lines by the South Western Railways (SWR) which has already commenced phase I of the project as reported by the MOPT. The port is of the view that if the reference tariff is not reviewed after 5 years, it may result in the PPP operator making windfall gains. It is relevant to state here the tariff guidelines of 2013 as well as 2008 do not provide for any review of the tariff fixed by this Authority due to change in the project profile during the project period. In the instant case, however, the port has highlighted the two areas of uncertainty in the project which cannot be predicted at this stage which may have a significant impact on the reference tariff now determined and may result in windfall gain to the operator as pointed by the MOPT if not reviewed after five years. That being so, the proposal of the port seeking review of the reference tariff after five years merits consideration. Therefore, the reference tariff approved by this Authority in this Order will be reviewed at any point of time when the average number of rakes increases beyond 9 rakes per day on an average in a year or if any other berths other than berth Nos. 5, 6 and 7 avail the benefit of this deepening project or after five years from the date of notification of this Order whichever is earlier. The MOPT should make it abundantly clear in the bid document at the time of bidding stage itself to all the prospective bidders as well as in the Concession Agreement that the reference tariff approved by this Authority in this order will be reviewed when the average number of rakes provided by the railways increases beyond 9 rakes per day on an average in a year or if any berths other than berth Nos. 5, 6 and 7 avail the benefit of this deepening project or after five years from the date of notification of this Order approved by this Authority whichever is earlier . It will be the sole responsibility of the land lord port MOPT to ensure that a proposal is filed to review the reference tariff fixed now immediately when the railways increases rake availability which crosses beyond average of 9 rakes per day on an average in a year or if berths other than berth No. 5, 6 and 7 avail the benefit of this deepening project or after five years from the date of notification of this Order whichever is earlier. Incidentally, this Authority has recently in the reference tariff Order No TAMP/60/2014- KPT dated 2 January 2014 relating to tariff fixation of Single Point Mooring at Kandla Port Trust has also allowed review of the reference tariff approved by this Authority as proposed by the KPT in view of some uncertainty envisaged in that project as well.

(xiii). The MOPT has proposed note under the dredging levy schedule stating that the two GRT slabs prescribed in the schedule pertain to size of vessel and are to be applied on the total GRT of the vessel and not on incremental basis. The proposed note is also found to be in order and hence is prescribed in the reference tariff schedule as proposed by the port.

(xiv). The MOPT has proposed another note that the proposed dredging levy shall be applicable for vessels calling at berths 5,6 & 7 and not for those at the existing berths, Mooring Dolphins and Outer Anchorage. The berth no 5 is added in this note perhaps only because cape size vessels calling berth no 6 will partly occupy berth no 5 also. The proposed note is also found to be in order and hence is prescribed in the reference tariff schedule as proposed by the port.

(xv). The MOPT had earlier proposed note (3) stating that the dredging levy prescribed in the reference tariff schedule shall be applicable for vessels calling at the existing berths, Mooring Dolphins and Outer Anchorage as and when these are deepened, modernised, rebuilt, strengthened or refurbished. Subsequently, it has requested to modify the proposed note slightly to state that the levy shall also be applicable to any new berths coming up in future and also to the existing berths if deepened. The revised note proposed by the MOPT is found to be in line with its current proposal and hence is prescribed in the reference tariff schedule as proposed by the port.

(xvi). Apart from the three notes proposed by the MOPT, one more note is prescribed in the Reference tariff schedule stating that the reference tariff approved in the Scale of Rates will be reviewed by this Authority if the average number of rakes provided by the railways increases beyond 9 rakes per day on an average in a year or if any berths other than berth Nos. 5, 6 and 7avail the benefit of this deepening project or after five years from the date of notification of this Order approved by this Authority whichever is earlier.

(xvii). The MOPT has only proposed three notes under the schedule relating to the dredging levy. The draft proposed Scale of Rates forwarded by the MOPT is not complete to the extent that it does not prescribe the definitions and general terms and conditions which are uniformly prescribed in the Reference Tariff/ upfront tariff schedule Scale of Rates for the other PPP projects. That being so, the definition of common terms like foreign going vessel and coastal vessel and the relevant general terms and conditionalities like the status of vessel, interest on delayed payments, rounding off the bills to next higher rupee, vessel related charges for coastal vessel shall not to exceed 60% of the rates for foreign going vessel, the rates prescribed by this Authority are ceiling rates and users not required to pay charges for delay beyond reasonable time attributable to the operator as prescribed in the reference tariff schedule approved for multipurpose cargo terminal at MOPT vide Order No TAMP/21/2014-MOPT dated 30 September 2014 are prescribed in the Reference tariff Schedule for the subject proposal as well.

(xviii). Clause 2.2 of the revised tariff guidelines of 2013 requires this Authority to prescribe the Reference Tariff along with the Performance Standards. Though the revised guidelines of 2013 do not require this Authority to go into the Performance Standards proposed by the port it is not unreasonable to assume that the ports would propose reasonable and achievable Performance Standard.

Initially the MOPT stated that performance standards are not applicable for this project. On highlighting the provisions of Clause 2.2 of the 2013 guidelines, the MOPT has proposed performance standard. The port had in its revised proposal dated 4 February 2014 proposed performance standard with reference to the depth to be maintained at the inner channel in the range of (-)19.50 M to (-)19.80 M and outer channel in the range of (-)19.80 M to (-)20.10 M. One of the prospective BOT operators SWPL has pointed out it will be difficult to maintain the proposed draft due to siltation during the monsoon and hence there should be allowance for depth reduction during monsoon. In view of the above point made by the SWPL, the MOPT has modified the performance standards and proposed the depth to be maintained at the inner channel and outer channel at minimum of (-)19.50 mtrs and (-)19.80 mtrs respectively. It has also proposed a note stating that the depths to be maintained are immediately after completion of the maintenance dredging every year apparently to address the concern raised by the SWPL. The revised proposed performance standards with the proposed note is approved as proposed by the MOPT.

(xix). The MOPT has also not proposed a general note relating to indexation factor for automatic adjustment every year giving the base WPI to be considered for such indexation. Since the cost estimates considered in the reference tariff calculation are based on the market rate pertaining to the year 2014, it is found appropriate and relevant to prescribe the base WPI to be considered for automatic adjustment every year as 1 January 2014. A suitable note in this regard is incorporated in the reference tariff schedule.

14.1. Subject to above analysis, the Reference Tariff Schedule and the Performance Standards as proposed by the port are attached are as **Annex–II** and **Annex-III** respectively.

14.2. In the result, and for the reasons given above, and based on a collective application of mind, this Authority approves the Reference Tariff Schedule for deepening of the inner and outer channel approach channel in Mormugao Port Trust and notify it alongwith the Performance Standards.

14.3. The MOPT to ensure that a proposal is filed to review the reference tariff fixed now immediately when the railways increases rake availability beyond 9 rakes per day on an average in a year or if berths other than berth No. 6 and 7 and any other PPP project are deepened so as to avail the benefit of this deepening project

14.4. As per clause 2.5 of the Revised Tariff Guidelines 2013, the Reference Tariff and Performance Standards notified by this Authority shall be mentioned in the bid document and subsequently in the Concession Agreement in respect of PPP Projects. Accordingly, the MOPT is advised to incorporate the Reference Tariff and Performance Standards, in the bid document and subsequently in the Concession Agreement in respect of PPP Project.

14.5. From the date of Commercial Operation (CoD) till 31st March of the same financial year, the tariff would be limited to the indexed Reference Tariff relevant to that year, which would be the ceiling. The aforesaid Reference Tariff shall be automatically revised every year based on an indexation as provided in para 2.2 of the tariff guidelines of 2013 which will be applicable for the entire concession period.

However, the PPP operator would be free to propose a tariff along with Performance Standards (the "Performance Linked Tariff") from the second year of operation onwards, over and above the indexed Reference Tariff for the relevant financial year, at least 90 days before the 1st April of the ensuing financial year. Such Performance Linked Tariff shall not be higher than 15% over and above the indexed Reference Tariff for that relevant financial year (and this will be the Tariff Cap). The Performance Linked Tariff would come into force from the first day of the following financial year and would be applicable for the entire financial year.

14.6. The proposal shall be submitted to this Authority along with a certificate from the independent engineer appointed under the Concession Agreement of the Project indicating the achievement of Performance Standards in the previous 12 months as incorporated in the Concession Agreement or for the actual number of months of operation in the first year of operation, as the case may be.

14.7. On receipt of the proposal, this Authority will seek the views of the MOPT on the achievement of Performance Standards as outlined in para 5 of the tariff guidelines of 2013, within 7 days of receipt.

14.8. In the event of Operator not achieving the Performance Standards as incorporated in the Concession Agreement in previous 12 months, this Authority will not consider the proposal for notifying the Performance Linked Tariff for the ensuing financial year and the Operator shall be entitled to only the indexed Reference Tariff applicable for the ensuing financial year.

14.9. After considering the views of the MOPT, if this Authority is satisfied that the Performance Standards as incorporated in the Concession Agreement have been achieved, it shall notify the performance linked tariff by 15th of March to be effective from 1st of April of the ensuing financial year.

14.10. While considering the proposal for Performance Linked Tariff, this Authority will look into the Performance Standards and its adherence by the Operator. This Authority will decide on the acceptance or rejection of the Performance Linked Tariff proposal based on the achievement or otherwise of the Performance Standards by the operator. Determination of indexed Reference Tariff and Performance Linked Tariff will follow the illustration shown in the Appendix attached to the tariff guidelines of 2013.

14.11. From the third year of operation, the Performance Linked Tariff proposal from the PPP operator shall be automatically notified by this Authority subject to the achievement of Performance Standards in the previous 12 months period as certified by the Independent Engineer. The PPP operator, for the Performance Linked Tariff from the third year onwards, will submit the Performance Linked Tariff proposal along with the achievement certificate from the independent engineer by 1st March and this Authority shall notify by 20th March, the Performance Linked Tariff to be effective from the ensuing financial year.

14.12. As stipulated in Clause 6.2 of the revised 2013 guidelines, in the event any user has any grievance regarding non-achievement by the PPP operator of the Performance Standards as notified by this Authority, he may prefer a representation to this Authority which, thereafter, shall conduct an inquiry into the representation and give its finding to the Mormugao Port Trust. The Mormugao Port Trust will be bound to take necessary action on the findings as per the provisions of the respective Concession Agreement.

14.13. As stipulated in Clause 6.3.1 of the revised 2013 guidelines, within 15 (fifteen) days of the signing of the Concession Agreement, the concerned operator will forward the Concession Agreement to this Authority which will host it on its website.

14.14. As stipulated in clause 6.3.2 of the revised 2013 guidelines, the PPP operator shall furnish to this Authority quarterly reports on vessel traffic, ship berth day output as well as the tariff realized for each berth. The quarterly reports shall be submitted by the PPP operator within a month following the end of each quarter. Any other information which is required by this Authority shall also be furnished to them from time to time.

14.15. As stipulated in clause 6.3.3 of the revised 2013 guidelines, this Authority shall publish on its website all such information received from PPP operator. However, this Authority shall consider a request from the PPP operator about not publishing certain data/ information furnished which may be commercially sensitive. Such requests should be accompanied by detailed justification regarding the commercial sensitiveness of the data/ information in question and the likely adverse impact on their revenue/ operation upon publication. This Authority's decision in this regard would be final.

14.16. As per clause 3.8.5 of the guidelines, if any question arises requiring clarifications or interpretation of the Scale of Rates and the statement of conditionalities, the matter shall be referred to this Authority and its decision in this regard will be binding on the operator.

14.17. The performance norms for the project should be clearly brought out in the bid documents. The operator is expected to perform at least at the performance norms brought out in the bid document/concession agreement.

14.18. The actual performance of the operator will be monitored by this Authority. If any complaint regarding quality of service is received, this Authority will enquire into such allegation and forward its findings to the MOPT. If any action is to be taken against the operator, the MOPT shall initiate appropriate action in accordance with the provisions of the relevant Concession Agreement.

(T.S Balasubramanian)
Member (Finance)

ANNEX - I

COST STATEMENT FOR FIXATION OF REFERENCE TARIFF FOR CHARGING DREDGING LEVY FOR DEEPENING OF THE APPROACH CHANNEL FOR CAPESIZE AND MINI CAPESIZE VESSELS UNDER PPP MODE AT MORMUGAO PORT TRUST

Sr. No	Particulars	Estimates in Ist Proposal of MOPT dated 23.12.2014	Estimates in IInd Proposal of MOPT dated 4.2.2015	Estimates considered by TAMP
I	Optimal capacity			
(i)	Optimal Capacity			
(a)	Values for detemining the optimal capacity based on handling rate of coal (at Berth nos. 6 and 7) as furnished by MOPT			
	(i). Berth No.6:			
	(a). Capesize	Optimal capacity not assessed by MOPT. The proposal of the Port mentioned that it is based on average per tonne rate determined for 5 years based on traffic projections.	11,497,500	11,497,500
			(90% share * 50000 unloading rate in tonnes/day * 70%* 365days)	(90% share * 50000 unloading rate in tonnes/day * 70%* 365days)
	(b). Panamax		894,250	894,250
			(10% share * 35000 unloading rate in tonnes/day * 70% * 365days)	(10% share *35000 unloading rate in tonnes/day * 70% * 365days)
	Total Optimal Capacity of coal handling at Berth No.6 (tonnes/annum)		**12,391,750**	**12,391,750**
	(ii). Berth No.7:			
	(a). Mini Capesize		8,048,250	8,048,250
			(90% share * 35000 unloading rate in tonnes/day * 70% * 365days)	(90% share * 35000 unloading rate in tonnes/day * 70% * 365days)
	(b). Panamax		894,250	894,250
			(10% share * 35000 unloading rate in tonnes/day * 70% * 365days)	(10% share * 35000 unloading rate in tonnes/day * 70% * 365days)
	Total Optimal Capacity of coal handling at Berth No.7 (tonnes/annum)	--	**8,942,500**	**8,942,500**
	Total Optimal Capacity at berth nos. 6 & 7 in tonnes/annum	--	**21,334,250**	**21,334,250**
(ii)	Optimal Evacuation Capacity (For coal handled at berth nos. 6 & 7)			
	(a). If no. of rakes are 9 per day	Not assessed by the Port	12,708,000	12,708,000
			(9rakes * 4000tonnes/rake * 353 days	(9rakes * 4000tonnes/rake * 353 days
	(b). If no. of rakes are 12 per day		16,944,000	16,944,000
			(12rakes * 4000tonnes/rake * 353 days	(12rakes * 4000tonnes/rake * 353 days
	(c). If no. of rakes are 14 per day		19,768,000	19,768,000
			(14rakes * 4000tonnes/rake * 353 days	(14rakes * 4000tonnes/rake * 353 days
	Total Optimal Evacuation Capacity considered by MOPT as in Sr. no. (i)(a) with 9 rakes/day (in Tonnes/annum)	--	**12,708,000**	**12,708,000**
(iii)	**Optimal Evacuation Capacity arrived by MOPT (in Million Tonnes/annum)**	--	**12.71**	**12.71**
(iv).	**Optimal Capacity considered in reference tariff computation at 90% of the total optimal capacity towards share of Capesize / Mini Capesize vessels (as given by MOPT)**	--	**11.44**	**11.44**
II	Capital Cost			
(a).	Dredging Activity	Rs. In crores	Rs. In crores	Rs. In crores
(i).	Mobilization Cost	25.00	25.00	25.00
(ii).	De Mobilization Cost	2.70	2.70	2.70
(iii).	Dredging in ordinary soil	235.45	251.18	251.18
		(13.85million cum.* Rs170)	(14.775 million cum. * Rs170)	(14.775 million cum. * Rs170)
(iv).	Dredging in rock	27.00	22.50	22.50
		(0.15million cum.* Rs1800)	(0.125million cum.* Rs1800)	(0.125million cum.* Rs1800)
	Total (a+b+c+d)	**290.15**	**301.38**	**301.38**
(b).	**Add 5% Miscelleneous Cost**	14.51	15.07	15.07
	Total Capital Cost for deepening of the Project (a + b)	**304.66**	**316.45**	**316.45**
III	Operating Cost Estimation			
	(i). Maintenance Dredging Cost	37.80	37.80	37.80
		(6million cum * 70% * 90/cum)	(6million cum * 70% * 90/cum)	(6million cum * 70% * 90/cum)
	(ii). Depreciation	10.18	10.03	**10.03**
		(3.34% of 304.66)	(3.17% of 316.45)	(3.17% of 316.45)
	(iii). Insurance @1%	3.05	3.16	3.16
		(1% of 304.66)	(1% of 316.45)	(1% of 316.45)
	Total Operating Cost (i+ii+iii)	**51.02**	**51.00**	**51.00**
IV	Annual Revenue Requirement			
(a).	Annual Revenue Requirement ARR			
	(i). Total Operating Cost	51.02	51.00	51.00
	(ii). Return on capital Employed @ 16%	48.75	50.63	50.63
	Total Revenue requirement	**99.78**	**101.62**	**101.63**

Computation of Dredging levy by MOPT as per its proposal dated 4.2.2015 and considered by TAMP

Sr. No	Particulars	Berth no. 6 for Capesize vessels	Berth no.7 for Mini Capesize vessels	Total
(i)	Optimal Capacity of Berth nos. 6 and 7 for coal handling (as given by MOPT) **(in Million Tonnes)**	9.50	3.21	12.71
(ii)	Optimal Capacity of coal cargo to be handled by Capesize and Mini Capesize Vessels (as given by MOPT) (in Million Tonnes) **(90% of i)**	8.55	2.89	11.44
(iii)	Average DWT (Tonnes)	185,000	120,000	--
(iv)	Average GRT (Tonnes)	111,000	72,000	--
(v)	Average Parcel Size (Tonnes)	185,000	120,000	**--**
(vi)	No. of Vessels **(ii/v)**	46	24	**70**
(vii)	GRT of vessels **(vi*iv)**	5,106,000	1,728,000	**6,834,000**
(viii)	Estimated Annual Revenue Requirement	--	--	**101.63**
(ix)	Rate for foreign going vessels (in Rs./GRT)			
	(a). For vessels of 75001 GRT and above **(as calculated in Note 1)**	**158.73**		
	(b). For vessels of 60001 to 75000 GRT **(75% of ix(a))**	**119.05**		
(x)	Rate for coastal vessels (in Rs./GRT)			
	(a). For vessels of 75001 GRT and above **(60% of ix(a))**	**95.24**		
	(b). For vessels of 60001 to 75000 GRT **(60% of ix(b))**	**71.43**		

Note: 1

(i)	Revenue requirement (Rs. In Crores)		101.63
(ii)	GRT of Berth no.6		5,106,000
(iii)	GRT of Berth no.7		1,728,000
(iv)	Total GRT		6,834,000
(v)	5106000x + 1728000 * 0.75x		6402000x
(vi)	x i.e. rate for Berth No.6 (for foreign going vessel)	**(i/v)**	158.73
(vii)	Rate for Berth No.7 (for foreign going vessel)	**(0.75 * vi)**	119.05

ANNEX – II

MORMUGAO PORT TRUST

<u>REFERENCE TARIFF SCHEDULE FOR CHARGING DREDGING LEVY FOR DEEPENING OF THE APPROACH CHANNEL FOR CAPESIZE AND MINI CAPESIZE VESSELS UNDER PPP MODE</u>

1.1 DEFINITIONS:

In this Scale of Rates unless the context otherwise requires, the following definitions shall apply.

(i). "**Coastal Vessel**" means any vessel exclusively employed in trading between any port or place in India to any other port or place in India having a valid coastal license issued by the competent authority.

(ii). "**Foreign Vessel**" means any vessel other than a coastal vessel.

1.2 GENERAL TERMS AND CONDITIONS:

(i). The status of the vessel, as borne out by its certification by the Customs or the Director General of Shipping, is the relevant factor to decide whether vessel is 'coastal' or 'foreign-going' for the purpose of levy of vessel related charges; and, the nature of cargo or its origin will not be of any relevance for this purpose.

(ii). The vessel related charges for all coastal vessels should not exceed 60% of the corresponding charges for other vessels.

(iii). Interest on delayed payments / refunds.

(a). The User shall pay penal interest on delayed payments under this Scale of Rates. Likewise, the terminal operator shall pay penal interest on delayed refunds.

(b). The rate of penal interest will be 2% above the Prime Lending Rate of the State Bank of India.

(c). The delay in refunds will be counted only 20 days from the date of completion of services or on production of all the documents required from the Users, whichever is later.

(d). The delay in payment by the users will be counted only 10 days after the date of raising the bills by the Terminal Operator. This provision shall, however, not apply to the cases where payment is to be made before availing the services where payment of charges in advance is prescribed as a condition in this Scale of Rates.

(iv). All charges worked out shall be rounded off to the next higher rupee on the grand total of the bill.

(v). (a). The rates prescribed in the Scale of Rates are ceiling levels, likewise, rebates and discounts are floor levels. The operator may, if they so desire, charge lower rates and/or allow higher rebates and discounts.

(b). The operator may also, if they so desire rationalize the prescribed conditionalities governing the application of rates prescribed in the Scale of

Rates if such rationalisation gives relief to the users in the rate per unit and the unit rates prescribed in the Scale of Rates do not exceed the ceiling level.

(c). The operator should notify the public such lower rates and/ or rationalisation of the conditionalites governing the application of such rates and continue to notify the public any further charges in such lower rates and/or in the conditionalities governing the application of such rates provided the new rates fixed shall not exceed the rate notified by the TAMP

(vi). Users will not be required to pay charges for delays beyond reasonable level attributable to the operator.

2. <u>Dredging Levy:</u>

Sl. No.	Vessels	Rate per GRT (₹)	
		Foreign Vessel	Coastal Vessel
1.	60001 to 75000 GRT	119.05	71.43
2.	75001 GRT & Above	158.73	95.24

<u>Notes:</u>

(1) The above GRT slabs pertain to the size of the vessel. The above rates are to be applied on the total GRT of the vessel and not on incremental basis.

(2) The above levy shall be applicable for vessels calling at berths 5, 6 & 7 and not for those at the existing berths, Mooring Dolphins and Outer Anchorage.

(3) This levy shall also be applicable to any new berths coming up in the future and also to the existing berths if deepened.

(4). Reference tariff prescribed above will be reviewed by the Tariff Authority for Major Ports if the average number of rakes provided by the Railways increases beyond 9 rakes per day on an average in a year or if any berths other than berth Nos 5,6 and 7 avail the benefit of this deepening project or after five years from the date of notification of the Order by the Authority whichever is earlier.

GENERAL NOTE TO SCHEDULE (2) ABOVE:

The tariff caps will be indexed to inflation but only to an extent of 60% of the variation in Wholesale Price Index (WPI) occurring between 1 January 2014 and 1 January of the relevant year. Such automatic adjustment of tariff caps will be made every year and the adjusted tariff caps will come into force from 1 April of the relevant year to 31 March of the following year.

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ANNEX - III

Performance Standards for Dredging Levy

Location	Depth to be maintained
Inner Channel	Minimum -19.50m
Outer Channel	Minimum -19.80m

Note: The depths to be maintained are immediately after completion of the maintenance dredging every year.

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<u>SUMMARY OF THE COMMENTS RECEIVED FROM THE PORT USERS / DIFFERENT USER ORGANISATIONS / PROSPECTIVE PPP OPERATORS AND ARGUMENTS MADE IN THIS CASE DURING THE JOINT HEARING BEFORE THE AUTHORITY</u>

F. No.TAMP/69/2014- MOPT - Proposal received from Mormugao Port Trust for fixation of Reference tariff for deepening of the inner and outer approach channel for capesize and mini capesize vessel under PPP mode.

A summary of the comments received from the users/ user organisations and prospective PPP Operators and comments of the Mormugao Port Trust (MOPT) thereon is given below:

Sl. No.	Comments made by users/ user organisations and PPP Operators	Response of MOPT
1.	**<u>M/s. Mercator Limited</u>**	
I.	**<u>Dredging Cost:</u>**	
(i).	The quantity estimated to be dredged is 14.0 M. Cu.M. and rock quantity to be dredged is 0.15 M.Cu.M. What are the studies carried out for soil exploration and is the quantity of rock estimated scientifically validated?	The estimates for the work has been arrived based on sub bottom profile studies and bore hole studies. The rates proposed are also based on the capital dredging which is presently on at Jaigharh. Hence the estimated amount is reasonable.
(ii).	The entire project cost will be severely hampered if the quantum of rock assessment is proved wrong. This will not only affect the Bidder/Concessionaire who will take up the project but also would lead the project to become unviable.	
(iii).	The proposal states that the rates for dredging have been adopted for a capital dredging project currently underway at Jaigarh Port. Please be guided that no two dredging projects are similar and each project is unique in terms of nature of material, site conditions, siltation pattern, dimensions of the channel, distance of dumping, morphology, local conditions, and availability of the site for dredging operations in view of shipping delays so on and so forth. Therefore, as per our knowledge and experience considering the same rates of Jaigarh Port for Mormugao Port may not be correct. Please advise Mormugao Port to share the details with the prospective bidders, the basis on which they have arrived at the decision to adopt the Jaigarh rates to the current project without studying the market rates and obtaining budgetary quotes for the project.	
(iv).	The rate for dredging rock is estimated at ₹1800/- per Cu.M. The prevailing rate for dredging rock in various Indian Ports is in the range of ₹5,000/- to ₹8,000/- per Cu.M. depending on the strength of the rock and the distance and method of disposal.	
(v).	Mercator suggests to consider a minimum of ₹6,000/- per Cu.M. for rock dredging which will work out to ₹90.0 Crores as against Port's	

	estimation of ₹27.0 Crores and the total project cost with revision in rock dredging will be ₹367.00 Crores.	
(vi).	Further, the mobilization cost is estimated at ₹25.0 Crore, whereas the de-mob cost is estimated at ₹2.70 Crores. The general industry practice is the de-mob cost would be 50% of the mobilization cost. Accordingly, the cost estimated for de-mobilization is very minimal and need to be revised upwards.	
(vii).	Mormugao Port has admitted that estimation of rate of siltation is a complex phenomena. It is further stated that for the purpose of this project, the maintenance dredging quantity will be about 5.0 million (M). Cu.M. per annum and considered only 4.2 M. Cu.M. for the purpose of estimation. The rate of ₹90/- per Cu.M. is the current rate for the year 2014 in the Port and can't be justifiable for the future years as the dredging cost is dependent on fuel price which is beyond the control of the Bidder and the spares for the dredger mostly imported are affected due to foreign exchange variation. The provision for variation in port tariff based on whole sale price index will not compensate the escalation due to rise in fuel price and spares cost due to foreign exchange variation. To compensate the foreign exchange variation to some extent, we suggest that the revenue sharing by Mormugao Port Trust to the Concessionaire be in US Dollars as the port tariff collected will be in USD.	The rate of siltation is as projected by CWPRS, who are competent in this field. Maintenance dredging cost has been considered according to the present rates. The additional Port dues proposed will be collected in Indian rupees and not US dollars.
(viii).	In most of the projects, the mathematical modeling carried out for assessing siltation proved wrong. In the current project, how the Bidder / Concessionaire will be compensated if the actual siltation is much higher than the estimation? For the mutual benefit, we suggest to keep a cap on the maintenance dredging quantity and if the quantity is found less than the estimate, than the Bidder will pass on the benefit to port and if it found to be more, Port need to compensate the Bidder for the additional cost towards maintenance dredging.	We do not expect any significant variations in the maintenance dredging quantity predicted by CWPRS.
(ix).	Mormugao Port Trust in its proposal stated that the existing spoil ground may not be suitable for disposal of dredged material and they need to carry out necessary studies at CWPRS to find out a new dumping ground. Did Port entrust the job to CWPRS? If so, what is the outcome of the study? One of the major factors that influence the costing of a dredging project is the dumping distance. The present estimates are based on the existing dumping ground and any change in dumping ground will severally impact the project cost. Therefore, it is essential to finalize the alternative dumping ground before the bidding process. Till the dumping ground is finalized,	The dumping ground will have to be shifted to a location where the contour is about -23 degrees. The exact location will be intimated to the bidders.

	we request not to finalize the tariff.	
(x).	Did Mormugao Port obtain the Environmental clearance from the Ministry? Whether the dredging cost estimated by the Port considered the additional cost towards implementing the environmental monitoring while deepening the channel? If so, please share the EIA study and the parameters that the Bidder need to monitor & control the impact on environment while deepening the channel.	The EIA Studies will be completed soon and immediately thereafter, the Port will apply for Environment Clearance.
(xi).	It is mentioned in the proposal that an additional tolerance of 0.2 m below the selected dredging depth is provided. We presume that the quantity to be dredged for deepening is estimated considering the above tolerance. However, as per standards minimum 0.3 mtr tolerance to be considered for soft soil and 0.5 mtr to be considered for rock and accordingly, the entire estimate has to be revised.	The tolerance will be .3mts. uniformly.
(xii).	Since the whole working of Tariff fixation is based on the capital cost and the recurring costs towards maintaining the channel, the above issues need to be addressed judiciously before finalizing the tariff.	[No separate comments furnished by MOPT].
II.	**Traffic Projections:**	
(i).	It is stated that only 3 berths namely berth No.5, 6 & 7 can be deepened. It is also mentioned that berth No.7 can be deepened to -16.50 m. Hence, there are only 2 berths 5 & 6 are available for operating Capesize Vessels. Out of the 2 berths, berth No.5 is earmarked for general cargo leaving berth no.6 alone for coal handling. As stated by the Port in the proposal that the revenues for the project will have to come out of coal handling only, please explain on how the expected traffic growth can be realized.	Once the deepening process is completed, Berth No. 6 as well as part of Berth No. 5 will be utilized for berthing of capesize vessels. The Port traffic has been considered accordingly.
(ii).	The length of Berth No.6 is 250 mtr, whereas, the length of Capesize vessel of average 1,85,000 DWT is around 300 mtr. Thus, berth No.6 alone cannot accommodate a capesize vessel. To accommodate capesize vessel at berth No.6, the ship has to occupy berth No.5 partially. There should be a clear plan on how the existing Concessionaire of berth Nos. 5 & 6 is going to handle the capesize vessels and the proposed plan need to be shared with the potential bidders for the subject deepening project.	
(iii).	The combined capacity of berth Nos. 5 & 6 is 7.5 M.Tons per annum. The projected coal traffic during 1st year upon completion of project is 9.0 M.Tons. There is a need for upgrading the existing infrastructure / handling facility to meet the projected growth in traffic. Since the berths are under the control of another Concessionaire, they should be willing	Since the deepening project will benefit the trade and there will be increase in cargo handling at Berth 6 & 7, both the existing PPP operators will be gearing up to handle this extra cargo. This is the basis on which the project has been formulated.

	to invest for upgrading the facilities at the berths to accommodate capesize vessels and the increased throughput. They may be willing to invest if they are successful in securing the present channel project. What happens if a new Bidder wins this project and the berth Concessionaire is not willing to invest to upgrade the facility to accommodate capesize vessels? Does the Concession agreement for berths provide the right to Port to insist on berth Concessionaire to upgrade the facility? We would like to have a copy of concession agreement for the berth Nos. 5 & 6 to understand the obligations between the Port and the Concessionaire.	
(iv).	It is also pertinent to note that the Berth No.5 & 6 Concessionaire has a captive Port under their possession at Jaigarh in Maharashtra which is just about 130 NM north of Mormugao Port catering to the same hinterland. Presently, capital dredging is in progress for deepening the channel, harbor and berths to accommodate capesize vessels. When JSW Jaigarh Port is ready for accommodating capesize vessels, why they will bring in the capesize vessels to Mormugao port if the deepened channel is under the control of another Concessionaire and is it still beneficial for them to import coal by capesize vessels at Mormugao port?	The project has been undertaken considering the demand for coal imports. Even with the expansion of Jaigarh Port, there is still demand for coal imports through Mormugao Port.
(v).	Can the berth Concessionaire refuse to accommodate a capesize vessel if any called at the port? Who is the final authority to control the traffic and berthing of ships at Berth No.5, 6 & 7? It is the Concessionaire of the respective berths or the Port?	The Concessionaire of Berths 5, 6 & 7 cannot refuse handling of any vessel that the berths are designed to handle.
(vi).	Keeping all the above issues in view, the PPP model for the deepening of channel project should involve the existing Concessionaire of berths and the Concession agreement for the channel should be a tripartite one.	The dredging project is a separate project and hence the Port cannot be involved in any Tripartite Agreement. The PPP operator undertaking the dredging work is free to enter into any agreements with the existing concessionaires.
(vii).	With respect to handling and evacuation of cargo, it is mentioned that South Western Railway (SWR) had not made any timelines for completing the doubling work to overcome the congestion that is prevalent at present. When there is no guarantee on minimizing the turnaround time for evacuation of the cargo from the Port, how the expected growth can be realized?	The South Western Railways (SWR) has already commenced phase I of the doubling work. It is understood that they are also carrying out certain improvements to increase the line capacity. Hence we expect the coal evacuation capacity to increase.
(viii).	Is there sufficient stock pile area available within the Port limit to accommodate the increased coal throughput till it is evacuated?	Both the existing Concessionaires operating coal terminals have stock pile capacities. They also have Rail-in-Motion Wagon Loading System for faster turnaround of rakes.
(ix).	What is the current lead time for evacuation of	Presently about 9 rakes of coal is

	cargo and what is the future forecast?	dispatched. We expect this to go upto 12 rakes and later increase to 14 rakes. Presently, a full rake is loaded in about 1 hour.
(x).	What is the rail capacity at present to cater to the coal transport from the Port to the steel plant(s) / end users?	
(xi).	What is the turnaround time for the wagons at present and what would be the time for turnaround for the proposed increase in traffic / cargo?	
(xii).	How many wagons are presently available to handle the coal and how many more required to handle the increased tonnage. Is the SWR geared up to handle the increased freight?	
(xiii).	We trust that all the above aspects have been considered and analyzed in detail for arriving at the traffic projection / growth in a scientific manner and would like to have the data before bidding.	----
III.	**Tariff fixation:**	
(i).	The additional Port dues have been arrived at considering the Annual Revenue Requirement of ₹99.78 Crores. The rate per GRT has been derived from this annual revenue requirement by the traffic projections, number of vessels and the total GRT.	The tariff proposal is now proposed to be amended accordingly.
(ii).	From the above, it appears that Port assumes that the entire coal traffic would come only by capesize vessels after deepening of the channel and not by any other type of vessels. In our view, part of coal imports would still be transported by other size vessels even after deepening of channel. Port to confirm the same and if required, need to review their tariff working.	
(iii).	Moreover, the additional port dues have been worked out without considering the probable revenue share by the Port. The concessionaire has to share certain portion of the revenue generated by additional Port due with the Mormugao Port while meeting his capital and recurring costs.	As per the Guidelines of the Ministry, revenue share cannot be considered as a cost.
(iv).	While fixing the tariff, a detailed comparative study need to be carried out taking into consideration the tariffs in other ports in India which can accommodate capesize vessels. The current tariff at various ports is as under: i) Gangavaram port - US$ 1.57 / GT ii) Krishnapatnam port - US$ 0.75 / GT iii) Dhamra Port - US$ 1.018 / GT	The tariff has been worked out based on the capital cost. We are not able to comment on the tariff structure of other private ports unless we know the cost per tonne of handling at these Ports and also provided that the figures are reliable.
(v).	The tariff fixed at Mormugao Port should be attractive and justifiable to the port users and viable to the Channel Concessionaire.	[No separate comments furnished].
2.	**Adani Mormugao Port Terminal Limited**	
(i).	Adani Mormugao Port Terminal Pvt Ltd., (AMPTPL) has signed a Concession Agreement with Mormugao Port Trust, Goa (MOPT) on 22 September, 2009 for the development of coal handling terminal at Berth	Berth No. 7 can be deepened only upto 16.5 mts. which means that only Mini Capesize vessels can be handled. During submission of the original proposal we had not considered this

	No. 7 on DBFOT basis. Appendix-4(12) (Project Requirement) of the said Concession Agreement stipulates that the Concessionaire shall undertake the capital dredging alongside the berth No. 7. The Initial required depth alongside the new berth would be (-) 14.50 Mtr. However, whenever the port (Concessioning Authority) undertakes the dredging of the channel beyond (-) 14.50 Mtr to facilitate handling of bigger size vessel, the Concessionaire shall be responsible for undertaking equivalent capital dredging along-side the berth no. 7 and the access to the berth from channel, to facilitate handling of such vessel at berth no.7. The berth design and construction should be undertaken keeping the deeper draft (up to 16.50 Mtr. below chart datum (CD)) requirement in the future. Accordingly, the design and construction of the berth has been executed keeping in mind the future dredging upto (-) 16.50 Mtr. The following is clarified with reference to the subject proposal.	aspect. This has been taken care in the revised proposal. The Dredging Levy shall be collected only for Mini Capesize vessels at B. No. 7 of 60,000 GRT / 1,00,000 DWT and above. Also a concession of 25% in the per GRT rate is proposed as compared to the rate for Capesize vessels to encourage the handling of Mini Capesize vessels. (Apart from this MOPT has not furnished any point wise comments on the comments of AMPTL)
(ii).	The proposal of MOPT to increase the depth beyond (-) 19.50 Mtr. cannot be used by Berth No. 7 due to its design restriction as stated above.	
(iii).	MOPT is proposing to increase the Port Dues by ₹158.89 per GRT post completion of capital dredging for bigger size vessels. However, in our view this increase of ₹158.89 per GRT should only be applicable to fully laden capsize vessel (say 185,000 tonnes), which is also stated in the TAMP proposal.	
(iv).	Berth No.7 will not be able to handle vessels beyond mini cape even after increase of its depth to (-) 16.50 Mtr.	
(v).	Adani will continue to handle the vessels with 14.50 Mtr draft without additional port dues. But if MOPT asks us to pay ₹158.89 per GRT for the bigger vessels, the MOPT will lose the opportunity to earn extra revenue, if they are not handling the mini capsize vessels at scheduled port dues.	
(vi).	However, (-) 16.50 Mtrs. Depth has already been considered in the Concession Agreement and there should not be any additional burden on AMPTPL on account of increasing depth up to (-)16.50 Mtrs.	
(vii).	Hence increase in Port Dues for Berth No. 7 should be proportional to the benefit it is deriving out of the deepening. Example a mini cape (say with 100,000 MT cargo) up to a calling draft of (-) 16.50 Mtr arriving at Berth No. 7 cannot be charged the same Port Dues compared to fully loaded cape (180,000 MT) arriving at other berths	
(viii).	The MOPT should charge the additional port dues from Cape Size vessels only.	

3.	**Dharti Dredging and Infrastructure Limited**	
(i).	Estimation of the Capital Dredging is not factual. As an experienced dredging contractor, we feel that the estimate is too low, and it will be somewhere around ₹500 cr. Considering the nature of soil, in our in house data, we feel estimate needs revision, by applying a Budget quote / cost estimate method from dredging contractors, as MOPT has not executed any rock dredging works in the recent past. Also that the disposal location is not yet finalized by the Port. Present disposal location will not suit as it is in the contour of 18m and MOPT is planning to go for 19.8 mts draft and it is a must that the disposal contour shall be more than 22/23 mts, subject to oceanographic studies on siltation. Thus, soft soil dredging rates also vary.	The capital cost should be worked out based on budgetary quotes. The dredging rates widely vary according to demand situations. In this case, the Port has adopted the rates quoted by a prominent dredging company working at Jaigarh Port which is about 200 kms. from MPT. Dredge depths to be achieved and the length of the channel at Jaigarh is also comparable to that of MPT. Hence the Port is of the opinion that the best option to work out the cost is adopting the rates quoted by the contractor at Jaigarh Port
(ii).	The proposed dredging location includes the Entrance channel and Turning Circle, i.e. almost 70% of the area is covered and that the Concessionaire has to maintain the Capital Dredging locations. The Port proposes to charge vessels which are using deeper draft and carrying coal at berths 5 & 6 only. The third berth cannot be deeper drafted, due to structural restrictions, as understood. As both the berths belong to one single PPP operator, the business/revenue pattern to the Concessionaire purely depends on the Business Model of the PPP operator of these berths alone. Therefore, it proposes that concessionaire should be allowed to charge all the vessels that are using the channel and other areas, where as the concessionaire to maintain the entire Port. The Port owns the channel but has a saving on maintenance dredging YOY, to the tune of ₹50-55 cr per annum, as on date. Down the line, in next 30 years this might increase and also that due to deeper draft, there may be increased siltation than that is being witnessed at the Port as on date. Further, this will reduce burden on PPP operator and the project will become viable for him to bring in more cargo. Further, in future Port may attract other drafted vessels, taking advantage of this capital dredging for different cargoes. However, for lower draft vessel, the charges may be lower compared to deep drafted vessels. Otherwise, if these additional charges are not viable for the PPP operator at this Port, he may divert his coal vessels to other sister ports, where deeper draft is	The fact that only Berths 5 and 6 can handle capesize vessels for the time being and Berth No. 7 can only handle mini capesize will be factored while arriving at the tariff. We have suggested a provision that the tariffs should be reviewed periodically so that any variations in the business/revenue pattern can be accommodated. The effect of siltation is as predicted by CWPRS. In our experience, we consider their estimates reliable, considering the long association with them. The tariff proposed is based on the capital as well as maintenance dredging cost that would be incurred by the PPP operator

	available. By increasing the purview of charging all vessels that are entering and leaving the Port, these charges will work out be lower, to achieve the break even.	
(iii).	Further construction period will be a year and half, as financial closure is required to be achieved, before taking up soil investigation, from the date of award of Concession Agreement, subject to soil matrix. Also, IDC is not considered by the Port in their proposal.	We have considered the construction period as 6 months and this is a reasonable time period. IDC has not been considered as this is not allowed by TAMP.
(iv).	This project is required to be viewed as a Pilot project and all guidelines and figures worked out should be on broad view basis, otherwise, there is a chance of using this as precedent in future by all Ports as dredging is planned by the Ports for the first time on PPP mode. Most important factor here is that the revenue to the concessionarie should depend on the broad based and not on one or two individual berths / PPP operators, which will run into high risk business and financial closure cannot be achieved, and even after award, it becomes a non-starter and runs into the risk of legal complications. In light of the above, DDIL have requested TAMP to look into the matter and make suitable suggestion to the Port for revising their model	As already stated above, the tariff is to be reviewed periodically considering the business that would be generated. For the time being, the business is only from Berths 5, 6 & 7 and hence accordingly, the tariff is proposed.
4.	**South West Port Limited**	
(i).	At present the port is able to handle vessels upto only 14 meters draft corresponding to GRT of 42000 to 44000. Therefore, vessels higher than 44000 GRT should be considered for applicability of proposed tariff.	It is true that the average GRT of most of the vessels handled with the current - 14.10 mtr. depth is about 44,000. There is no distinct and accurate relationship between the GRT and the DWT/Cargo carrying capacity of the vessel and depends totally on the design of the vessel. But normally the GRT is approx. 60% of the DWT and the DWT is almost equivalent to the cargo carrying capacity or parcel size. It is pertinent to note that SWPL has handled 100 vessels of more than 50000 GRT at berth no. 6 from 01/04/2009 to 31/03/2014. Also the highest quantity handled by a single vessel during the same period was 104093 tonnes of Coking Coal on 02/02/2014 by the vessel M.V DHUN with a DWT and GRT of 107296 and 58628 respectively. Even though this is one of the few vessels not falling within the general range of vessels handled, it is the Port's endeavour not to burden the existing traffic and as

<table>
<tr><td></td><td></td><td>such the starting slab attracting the Dredging Levy has been fixed at 60000 GRT.</td></tr>
<tr><td>(ii).</td><td>During the monsoon, at present draft, panamax vessels usually carry dead freight. Therefore, vessels getting benefitted by the additional dredging should also pay the proposed tariff for proposed project of deepening of the approach channel.</td><td>Dead freight during monsoons has always been uneconomical for the importers as a result of draft reduction due to siltation as the vessels cannot come in fully loaded. Now, the vessels shall be able to come in fully loaded as per their DWT which should have always been the case. In order to bring such vessels within the ambit of the Dredging Levy separate GRT slabs would be required for the monsoon and fair season periods which the Port does not favour. This is the case with all the other berths also where vessels pay higher Pilotage and Berth Hire charges while handling lesser cargo during monsoons.</td></tr>
<tr><td>(iii).</td><td>Draft maintenance at stipulated depth level will be difficult due to siltation during the monsoon. Therefore, allowance for depth reduction during monsoon should be permissible.</td><td>It is clarified that the Performance Standards stipulating the depths to be maintained are immediately after completion of the maintenance dredging every year and not throughout the year or during the monsoons. In view of this, the Performance Standards are proposed to be modified for more clarity as follows :

Performance Standards
Performance Standards for deepening of Inner & Outer Approach Channel :

<table><tr><th>Location</th><th>Depth to be maintained</th></tr><tr><td>Inner Channel</td><td>Minimum -19.50m</td></tr><tr><td>Outer Channel</td><td>Minimum -19.80m</td></tr></table>
Note: The depths to be maintained are immediately after completion of the maintenance dredging every year.</td></tr>
<tr><td>5.</td><td>Goa Mineral Ore Exporters Association</td><td></td></tr>
<tr><td></td><td>From the proposal it is clear that the fixation of reference tariff for deepening of the Approach Channel for Capesize vessel under PPP mode is essentially to cater to the import of Coal (and Coal Berth) as indicated in the feasibility report. As such, we have limited comments to make at this juncture.

However, the planned expenditure should not affect in whatsoever manner the export of Iron ores vessels arriving at MOPT.</td><td>It is clarified that at present the Dredging Levy shall be applicable only to vessels at berth nos. 5, 6 and 7 and the existing iron ore vessels shall not attract the Dredging Levy unless the area alongside the other existing berths, Mooring Dolphins and Outer Anchorage are deepened.</td></tr>
</table>

	The average rainfall in the State is around 3000 – 3200mm per annum, which may be re-verified, if needed.	

2. A joint hearing on the case in reference was held on 22 January 2015 at the MOPT. The MOPT made a brief power point presentation of its proposal. At the joint hearing, the MOPT and the concerned users / users organization, Prospective bidders and PPP Operators have made the following submissions:

Mormugao Port Trust (MOPT)

(i). Made a brief power point presentation of its proposal. Hard copy is given.

(ii). Outer channel draft presently is 14.4 mtrs. and inner channel is 14.10 mtrs. Proposal is to deepen it to 19.8 mtrs. and 19.50 mtrs. respectively.

(iii). This is the first experiment in the port sector to take up Capital Dredging project on PPP model.

(iv). Presently, there are two BOT operators. The South West Port Limited (SWPL) operates two berths viz. berth no.5 (mainly steel exports) and berth no.6 (coal). Another operator, Adani Mormugao Port Terminal Ltd. has commenced its operations from June 2014 at berth no.7 which is coal terminal.

(v). For the time being, berth nos.5 and 6 of SWPL will benefit. Maximum GRT of vessel handled in our port with existing draft is 60,000 GRT. With the deepening work, the maximum GRT of Vessels that can be handled will be 1,11,000 GRT for berths 5 and 6 and 72,000 GRT for Berth no.7. It is now proposed to levy the additional port dues for vessels beyond 60,000 GRT. We will revise the proposal.

(vi). For any other existing berths and at Mooring Dolphins, this levy will be applicable only if the berths/ Mooring Dolphins are deepened beyond the present depths or these berths are modernised/ rebuilt/ refurbished. For any new berths constructed, this levy will become applicable.

(vii). We have arrived at a capex of ₹316.45 crores. The main capex estimate relates to capital dredging which is based on information obtained from Jaigarh Port. Jaigarh Port was deepened from 14 mtrs. to 20 mtrs like our case. Jaigarh Port is only about 200 kms away from MOPT and soil quality is also quite similar to our port. The assessment of capital cost is fair.

(viii). Approximate quantity to be dredged is 14.90 million cum of soil and 1.25 lakh cum of Rock.

(ix). Maintenance dredging is the responsibility of the PPP operator. Maintenance dredging requirement by the PPP operator is assessed at about 4.2 million cum per annum. This is only an estimate. It may vary.

(x). There can be other PPP projects which may benefit in future due to this capital dredging project. We will take ground situation of this aspect after five years. Therefore, we have sought review of the reference tariff after five years.

(xi). There is uncertainty in this project. But, it will not be unfavorable to the existing BOT operators.

(xii). There is going to be continuous increase in demand for coal. Presently, evacuation of coal is an issue. At present 8 or 9 rakes are handled. This is a conservative estimate. We have taken up with Railways to provide more number of rakes.

Further, the project of doubling of railway line is also envisaged. The evacuation facility is expected to improve. As the evacuation improves volume of coal will increase in future.

Mercator Ltd.

(i). We request the port to share the technical data.
[MOPT - At RFP stage, we will share Technical Report and draft Concession Agreement with the prospective bidders.]

(ii). Is the dumping ground distance similar to Jaigarh Port ? The distance of dumping ground distance has financial impact.
[MOPT - As regards dumping ground issue, only after we get the report we can respond.]

(iii). The unit rate of ₹1,800 per cum adopted by the port for dredging rock is too low. Present unit rate in the range of ₹5,000 to ₹8,000. It of course differs depending on the type of the rock.
[TAMP - Mercator Ltd. to substantiate these unit rates with documentary evidence to MOPT and TAMP.]

(iv). Demobilisation cost is normally 50% of mobilization cost. Estimate of MOPT is found to be low.

(v). Siltation quantum may vary from the level assumed by MOPT.
[MOPT - Central Water and Power Resources Station (CWPRS) is regularly undertaking the study of siltation. We have engaged them. Their estimates are normally found to be ok.]

(vi). Put a cap on quantum of maintenance dredging. If lower quantity is dredged, the BOT operator will pass on the benefit to port. If it is on the higher side, MOPT should share the additional cost of maintenance dredging.

(vii). Whether Environmental clearance is obtained? Whether cost for Environmental clearance is considered?
[MOPT - This is one of the prestigious project of Ministry of Shipping. We expect to receive Environmental clearance by March 2015. Cost for this is not considered in the tariff computation. In any case, it will not be a significant cost.]

(viii). Of the two berths 5 and 6 of SWPL, only berth 6 handles coal. Total berth length of the said two berths is 450 mtrs. If cape size vessel comes at berth no.6 it will occupy part of berth no.5. This may impact handling of general cargo vessel at berth no.5.

(ix). In this project neither traffic nor vessel, nor tariff is under the control of the BOT operator. Who will come forward to invest such a huge amount when nothing is under its control?
[MOPT – The project is on PPP mode by inviting open tenders. This project has its inherent risk. Any bidder has to assess the risk involved and accordingly quote.]

(x). Rate is proposed based on GRT of coal vessel. It is assumed that all coal vessel at berth no.6 will be only be cape size vessel.

(xi). Revenue share payable to port is not considered as cost in the tariff. Please consider this as it is cost to the operator.
[MOPT - As per 2008 and 2013 tariff guidelines issued by the Ministry of Shipping, revenue share payable by the operator to the concerned port is not admitted as pass through while fixing the reference/ upfront tariff.]

(xii). At other ports like Gangavaram, Krishnapatnam, Dhamra port which can accommodate cape size vessel, the tariff is in the range of US $ 1 to US$ 1.5. The tariff proposed by MOPT at ₹159 i.e. around US$2.6 is very much on the higher side.

Adani Mormugao Port Terminal Ltd.

(i). Maintenance Dredging is estimated for quantum of 6 million cum applying 70% multiplying factor i.e. on 4.2 million cum. What is the base of these factors ?
[MOPT - The quantum of 6 million cum is based on the study conducted by Central Water and Power Research Station (CWPRS) and is based on the current siltation at the port which is around 70%.]

(ii). We are major coal importers of India. As per our experience the tariff at deep drafted ports in India like Gangavaram, Dhamra, Krishnapatnam which are capable to handle cape size vessel is lower than 1 USD.

(iii). If the proposed ₹160 per GRT is approved, the business will be affected adversely. No one will prefer the MOPT if such high rate is prescribed for capital dredging. The freight advantage of handling cape size vessels instead of panamax vessels in the range of 2 to 3 US dollars is lost. Capex of this project is proposed to be recovered over miniscule cargo expected in cape size. This cargo can be handled with or without cape size.

(iv). The port now proposes to introduce levy of the proposed rate for vessels more than 60,000 GRT and above. We at berth no.7 are impacted with the proposed levy. Vessels will not be interested to pay additional ₹160 per GRT to bring cape size vessel to berth no.7. Only panamax vessels will come. Port may not derive the benefit of this project. The port will become uncompetitive.

(v). Our berth no.7 is designed for 16.50 mtrs. and we have incurred expenditure to have – 16.50 mtrs. draft. We cannot be levied double tariff if, we bring vessels upto 16.50 mtrs. Anything above 16.50 mtrs, we will pay for incremental GRT. The levy as such should be only on the incremental GRT for vessels beyond 60,000 GRT.

(vi). Business Economics will not work out. It will not be beneficial to bring mini cape size vessel at berth no.7.
[MOPT - There is risk for the BOT operator of this project. But, there is no risk to the existing BOT operators. Only if they bring vessels beyond 60,000 GRT the proposed levy will apply.]

(vii). What is the basis for categorizing above 60,000 GRT as cape size vessel?
[MOPT - We have seen that a maximum vessel size presently handled based on the existing draft is around 60,000 GRT.]

Indian National Shipowners' Association

(i). We support the model of MOPT to impose the levy on vessels above 60,000 GRT.

3. At the joint hearing, Adani Mormugao Port Terminal Ltd. (AMPTL) was requested to submit in writing the arguments made by them at the joint hearing. The AMPTL vide its email dated 31 January 2015 has furnished its response with a copy endorsed to MOPT. The MOPT vide its email dated 7 February 2015 has submitted its comments thereon. A summary of the points made by AMPTL and comments furnished by MOPT thereon is tabulated below:

Sl. No.	Written submissions made by AMPTL	Reply furnished by MOPT
(i).	The present Port Dues at Mormugaon	The revised rate proposed by the Port is

<table>
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<td></td>
<td>Port Trust (MOPT) is USD 0.19 per GRT. MOPT has proposed a further increase of ₹159.59 per GRT for all the vessels of 60,000 GRT and above. Converting the additional Port Dues to USD, it comes to USD 2.61 per GRT (approx). Hence the total Port Dues payable by a vessel of 60,000 GRT and above will be close to USD 2.80 per GRT.</td>
<td>as shown below :
<table>
<tr><th rowspan="2">Sl. No.</th><th rowspan="2">Vessel Size</th><th colspan="2">Rate per GRT (₹)</th></tr>
<tr><th>Foreign Vessel</th><th>Coastal Vessel</th></tr>
<tr><td>1.</td><td>60001 to 75000 GRT</td><td>119.05</td><td>71.43</td></tr>
<tr><td>2.</td><td>75001 GRT & Above</td><td>158.73</td><td>95.24</td></tr>
</table>
It has been stated by M/s AMPTPL that due to design constraints, berth no. 7 can be dredged only upto -16.50m limiting the size of the vessels that can be handled there to upto 1,25,000 DWT / 75,000 GRT. Taking this fact into consideration, the Port has proposed a 25% concession in the rate for vessels upto 75,000 GRT which is ₹ 119.05 per GRT which amounts to USD 1.98 per GRT at an exchange rate of ₹ 60. This translates into a freight cost of ₹71.43 per tonne of cargo which amounts to USD 1.19 per tonne. As the savings in freight is to the tune of USD 3 to 4 per tonne of cargo, the net savings in freight shall be to the tune of USD 1.81 to 2.81 per tonne of cargo.</td>
</tr>
<tr>
<td>(ii).</td>
<td>In no Major Port of India the Port Dues for handling a vessel beyond 60,000 GRT are so high. In fact, few of the Major ports, which are capable of handling capesize vessels like Visakhapatnam Port (VOPT) has Port Dues of USD 0.25 per GRT. The Port Dues of few established deep draft private ports like Mundra is USD 0.17 per GRT, Dhamra is USD 1.00 per GRT and Krishnapatnam is USD 0.50 per GRT. Hence, it is clear from the above that MOPT proposal for a tariff of USD 2.80 per GRT for Port Dues is too high and unviable in comparison to the existing deep draft ports of India.</td>
<td>MOPT as such is not a deep draft Port, but in order to make it into a deep draft Port capable of handling Capesize vessels, a capital expenditure to the tune of ₹316.45 crores has to be incurred and which has to be recovered by way of a Dredging Levy which works out to a rate of ₹119.05 per GRT or USD 1.98 per GRT as shown in point no.1 above for vessels between 60,000 to 75,000 GRT. The Port cannot comment on the Port Dues of other deep draft Ports.</td>
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<tr>
<td>(iii).</td>
<td>Such a steep increase in tariff of port Dues will not acceptable to the trade as it leads Mormugao port (MOPT) to become non-competitive. The trade may stand to lose with such high tariff even after accounting for the benefits it may get from the freight differential of Panamax vis-à-vis Capesize vessels</td>
<td>Till date the Port has been handling only fully loaded Panamax vessels at its berths due to its -14.10m depth. It is reiterated that none of the existing traffic will be affected by the proposed Dredging Levy which shall be applicable only to Cape and Mini Cape size vessels at berth nos. 5, 6 & 7 which the Port could not handle till date. As such, only the bigger vessels benefitting from the savings in freight cost</td>
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</table>

		shall attract the Dredging Levy. If the bigger vessels stand to lose even after accounting for the benefits due to freight differential, the trade always has the option of bringing in the existing Panamax vessels which do not attract the Dredging Levy.
(iv).	Concession Agreement stipulates that the Concessionaire shall undertake the capital dredging alongside the berth no.7. The initial required depth alongside the new berth would be (-) 14.50 Mtr. However, whenever the port undertakes the dredging of the channel beyond (-) 14.50 Mtr to facilitates handling of the vessel of bigger size, the Concessionaire shall be responsible for undertaking equivalent capital dredging along-side the berth no.7 and the access to the berth from channel, to facilitate handling of such vessel at berth no.7. The berth design and construction should be undertaken keeping the deeper draft (up to 16.50 Mtr below chart datum (CD) requirement in the future. Accordingly, the design and construction of the berth has been executed keeping in mind the future dredging upto (-) 16.50 Mtr.	The Concession Agreement with AMPTPL does not stipulate that the Port has to mandatorily dredge the channel to a depth of -16.50m for berth no. 7. The clause stipulating the dredging alongside the berth no. 7 was inserted to consider the eventuality of dredging of the channel beyond the existing -14.10m at some later date and to enable berth no. 7 to handle larger vessels if and when the dredging is carried out. Also, nowhere in the Concession Agreement it is provided that the dredging to depths of -16.50m if carried out would be provided free of cost without increase in Port Dues. Considering the scenario that if this deepening project was undertaken by the Port itself, then also TAMP would have considered the capital and maintenance cost for revision of the Port's SoR, the only difference being that the Port would have collected the Dredging Levy instead of the PPP operator. Also, as per the Concession Agreement, AMPTPL has to dredge alongside the berth no. 7 and access to the berth from the channel, the cost of which AMPTPL shall now be saving. Thus, it is stated that designing and constructing the berth keeping in mind future dredging upto -16.50m does not entitle berth no. 7 vessels to immunity from payment of the Dredging Levy for bigger vessels handled at berth no. 7.
(v).	MOPT in its proposal has loaded the additional Port Dues only on two projects i.e. Berth No.5 & 6 (SWPL project) and Berth No.7 (AMPTPL project). Here it may be noted that Berth No.7 can be dredged only to a level of (-) 16.5 Mtr due to design restrictions. Hence, it will not derive the complete benefit of dredging, which is planned to a level of (-) 19.8 Mtr. In this case, if MOPT is proposing to load Berth No.7 equally in comparison to SWPL project then it will be detrimental to the business of Berth No.7 (AMPTPL Project) in the sense that it is getting only marginal benefit of berthing upto 72,000 GRT vessels against the proposed dredged depth to handle 110,000 GRT vessels	The Port has proposed the Dredging Levy only on berths 5, 6 & 7 as these will be the only berths capable of handling fully loaded vessels of 1,00,000 DWT and above after the dredging. The bigger iron ore export vessels earlier were partially loaded at MOHP and uptopped outside at West of Breakwater. The Dredging Levy is proposed to be extended to the other existing berths, Mooring Dolphins and Outer Anchorage as and when these are deepened, modernised, rebuilt, strengthened or refurbished. However considering the fact that berth no. 7 can be dredged only upto -16.50m and will not derive the complete benefit of dredging which is planned to a level of -19.50m, the Port has proposed a dual slab tariff structure with a 25% concession in the

		Dredging Levy for vessels between 60,001 to 75,000 GRT as explained in point no. 1.
(vi)	MOPT in its proposal has considered entire cargo projections at Berth No.7 to be handled in vessel sizes beyond 60,000 GRT. This cannot be the reality as many vessels calling Berth No.7 even after deepening of channel will be less than 60,000 GRT.	It is informed that the Port has revised the original proposal and considered that 90% of the cargo at berth nos. 5, 6 & 7 shall be handled by the Cape and Mini Cape size vessels of 60,000 GRT and above and the balance 10% shall still be handled by Panamax vessels.
(vii)	AMPTPL continues to handle the vessels with (-) 14.50 Mtr draft without additional port dues. However, if MOPT demands Port Due of USD 2.80 per GRT from AMPTPL, for the bigger vessels upto 72,000 GRT for only a marginal benefit it derived, then MOPT will lose the opportunity to earn extra revenue, if AMPTPL does not handle mini capesize vessels at scheduled port dues as envisaged in their Concession Agreement.	In order to encourage AMPTPL to handle Mini Capesize vessels and consequently earn extra revenue, the Port has proposed a dual slab tariff structure with a 25% concession in the Dredging Levy for vessels between 60,001 to 75,000 GRT.
(viii).	Since, (-) 16.50 Mtrs depth has already been considered in the Concession Agreement, there should not be any additional burden on AMPTPL on account of increasing depth up to (-) 16.50 Mtrs as Concessionaire has already invested in the project to that extent.	This issue has been explained in detail in point no. (iv) above.

4. The Dharti Dredging and Infrastructure Ltd. (DDIL) has furnished its comments on the revised proposal with a copy endorsed to MOPT vide its email dated 9 February 2015. M/s. Adani Mormugao Port Terminal Pvt. Ltd. (AMPTPL), vide its email dated 11 February 2015 has attached its letter dated 7 February 2015 furnishing its comments on the revised proposal. These comments were forwarded to the MOPT on 11 February 2015 for furnishing its comments thereon immediately. The MOPT has, vide its email dated 10 February 2015 and 12 February 2015 furnished its comments thereon. A summary of the comments received from DDIL and AMPTPL and reply furnished by MOPT thereon are tabulated below:

Sl. No.	Comments received from the users/ PPP operators	Reply furnished by MOPT
1.	**Dharti Dredging and Infrastructure Ltd.**	
(i).	The proposal of the Port needs to be re-evaluated, even though Port has made a significant effort for revising the proposal on their part. The main draw backs of the proposal still untouched.	(i). At present only the berths 5, 6 & 7 are proposed to be dredged to handle Capesize and Mini Capesize vessels and as such the Dredging Levy is proposed to be collected only from vessels handled at these berths. None of the Port's other berths are capable of handling fully loaded Capesize and Mini Capesize vessels and thus cannot reap the benefits of the dredging upto -19.50m. As such, it is not fair to load the Dredging Levy on the panamax vessels which do not require dredging upto -19.50m. It is proposed that the vessels at the other existing berths, Mooring Dolphins and Outer Anchorage shall attract the Dredging Levy only as and when these are deepened.
(a)	Dredging levy only on Vessels calling at Port in selective berths. The Operator (Dredging) has still to depend on the business model by one or two players and the entire economics is in the hands of the business model of other Company and not in the Trade/ commodity.	
(b)	The estimate of Capital dredging is unrealistic and not corrected. Especially with rock dredging per cum as ₹1800cum.	

	We are a leading contractor in underwater drilling and blasting and rock dredging contractor the prices are not less than ₹4000+ per cum. Recently on west coast Mumbai Port for OCT berth (opened a year back) and L1 bidder quoted ₹3800/- per cum (plus ₹5500/- for jet probing), based which the Port and Ministry have approved the revised estimate. To note that these prices were also quoted on 18.10.2013. Similarly soft soil is ₹236/- by the L1 Bidder. Thus Port has to re look into the estimate and workout a revenue model. Thus in our workout the estimate shall not be less than 500 cr, including Soil investigation, rock level determination, mob and demob, IDC and maintenance during construction etc. This will form CAPEX for the Operator.	(ii). This issue has been explained in point no. 1 in response to the documents submitted by Mercator Ltd. and also vide our letters dt. 04/02/2015
2.	**M/s. Adani Mormugao Port Terminal Pvt. Ltd.**	
(i).	The present port dues of the Mormugao Port Trust (MOPT) is USD 0.19 per GRT. MOPT has proposed a further increase of ₹119.05 per GRT (USD 1.95 per GRT) for the vessels from 60,001 to 75,000 GRT and ₹158.73 per GRT (USD 2.60 per GRT) above 75,001 GRT. Hence the total Port Dues payable by a calling vessel of 60,001 to 75,000 GRT will be USD 2.14 per GRT and USD 2.79 per GRT for the vessel size of 75,000 GRT and above.	The point nos. (i). to (viii) of the letter no. AMPTPL/TAMP/2014-15/07 dated 07/02/2015 are exactly the same as the points raised by M/s AMPTPL vide their letter no. AMPTPL/TAMP/2014-15/06 dated 30/01/2015 addressed to the Authority. The only difference being that the figures in the earlier letter which were based on the original proposal have been replaced by the figures in the revised proposal. The Port has already replied to the earlier letter dated 30/01/2015 vide our letter no. FA/COST/125/2015/285 dated 07/02/2015. Our view on the letter no. AMPTPL/TAMP/2014-15/07 dated 07/02/2015 still remains the same and the Port has no further comments to offer.
(ii).	In no Major Port of India the Port Dues for handling a vessel beyond 60,000 GRT are so high. In fact, few of the Major Ports, which are capable of handling, capesize vessel like Visakhapatnam Port Trust (VOPT) has Port Dues of USD 0.25 per GRT. Port Dues of few established deep draft private ports like Mundra is USD 0.17 per GRT, Dhamra is USD 1.00 per GRT and Krishnapatnam is USD of 0.50 per GRT. Hence, it is clear from the above that MOPT proposal for a tariff of USD 2.14 /2.79 per GRT slabs for Port Dues is too high an unviable in comparison to the existing deep draft ports of India.	
(iii).	Such a steep increase in tariff of Port Dues will not be acceptable to the trade as it leads Mormugao Port (MOPT) to become non-competitive. The trade may stand to lose with such high tariff even after accounting for the benefits it may get from the freight differential of Panamax vis-a-viz Capesize vessel.	
(iv).	We reiterate that Adani Murmugoa Port Terminal Pvt. Ltd., (AMPTPL) has signed a Concession Agreement with Mormugao Port Trust, Goa (MOPT) on 22 September 2009 for the development of coal handling terminal	

	at Berth No.7 on DBFOT basis. Appendix-4(12) (Project Requirement) of the said Concession Agreement stipulates that the Concessionaire shall undertake the capital dredging alongside the berth no.7. The initial required depth alongside the new berth would be (-) 14.50 Mtr. However, whenever the Port (Concessioning Authority) undertake the dredging of the channel beyond (-) 14.50 Mtr to facilitates handling of the vessel of bigger size, the Concessionaire shall be responsible for undertaking equivalent capital dredging along-side the berth no.7 and the access to the berth from channel, to facilitate handling of such vessel at berth no.7. The berth design and construction should be undertaken keeping the deeper draft (up to 16.50 Mtr below chart datum (CD)) requirement in the future. Accordingly, the design and construction of the berth has been executed keeping in mind the future dredging upto (-) 16.50 Mtr.	
(v).	Secondly, MPT in its proposal presently has loaded the additional Port Dues only on two projects i.e., Berth no.5 & 6 (SWPL project) and Berth no.7 (AMPTPL project). Here it may be noted that Berth No.7 can be dredged only to a level of (-) 16.5 Mtr due to design restrictions. Hence, it will not derive the complete benefit of dredging. Which is planned to a level of (-) 19.8 Mtr. In this case, if MPT is proposing to load Berth no.7 up to 75% in comparison to SWPL project then it will be detrimental to the business of Berth no.7 (AMPTPL Project) in the sense that it is getting only marginal benefit of berthing upto 72,000 GRT vessels against the proposed dredged depth to handle 110,000 GRT vessels.	
(vi).	Thirdly, MPT in its proposal has considered 90% of cargo projections at Beth no.7 to be handled in vessel sizes beyond 60,000 GRT. This cannot be the reality as many vessels calling Berth no.7 even after deepening of channel will be less than 60,000 GRT.	
(vii).	As explained above, AMPTPL continues to handle the vessels with (-)14.50 Mtr draft without additional port dues. However, if MOPT demands a Port Due of USD 2.08 per GRT from AMPTPL, for the bigger vessels upto 75,000 GRT for only a marginal benefit it derived, then MOPT will lose the opportunity to earn extra revenue, if AMPTPL does not handle mini capsize vessels at scheduled port dues as envisaged in their Concession Agreement.	
(viii).	Since, (-) 16.50 Mtrs depth has already been considered in the Concession Agreement, there should not be any additional burden on	

	AMPTPL on account of increasing depth up to (-) 16.50 Mtrs as Concessionaire has already invested in the project to that extent.	
(ix).	The evacuation plan considered by MOPT needs to be practical. Coal loading for average of 9 rakes per day for full month is still to be achieved by MOPT. It also means that other cargos are not taken into consideration while calculating the cargo evacuation rate.	The In Motion Wagon Loading System has recently been commissioned by both SWPL and AMPTPL and like any other new system face initial teething problems. It is to also inform that 9 outward rakes have already been handled on 3 days in Dec 2014 and on 6 days in Jan 2015. It may kindly be noted that 10 outward rakes were handled on 11/02/2015, out of which 8 were handled by SWPL and the balance 2 by AMPTPL. This could be achieved due to availability of 10 empty rakes from South Western Railways with still time to spare during which more rakes could have been handled if made available. This proves that the efficiency of rake handling is on the rise and the only bottleneck is the availability of empty rakes.
(x).	The average coal loaded into the rake is in the tune of 3,800 MT per rake instead of 4,000 MT which is actually the cargo carrying capacity for the rake. Due to lesser density, the average coal loaded will be in tune of 3,800 MT average only.	As per Railway Standards the carrying capacity of the wagons is 68 tonnes and on an average each rake consists of 59 wagons which amounts to a total standard carrying capacity of 4012 tonnes per rake in this Vasco–Hubli (SWR) circuit. The data for the month of Dec 2014 for the In Motion Wagon Loadings System shows that 125 rakes out of a total of 172 rakes loaded more than 4000 tonnes of coal, which amounts to 72.67% of the rakes being loaded with more than 4000 tonnes of coal. If the number of wagons supplied per rake is less than 59 then the total cargo loaded per rake can be less than 4000 tonnes. It is also clarified that as per Appendix 4 CL.12 of the Concession Agreement with AMPTPL, the Concessionaire (AMPTPL) shall be responsible for undertaking equivalent capital dredging alongside the Berth No.7 and the access to the berth from the channel, to facilitate handling of such vessels at Berth No.7. Hence, it is informed that AMPTPL shall save the total cost of Capital Dredging alongside the Berth No.7 and the access to the berth from the channel as the same shall now be carried out by the PPP operator. (The clause 12 of the Concession Agreement attached with the MOPT letter dated 12 February 2015 is reproduced below for ease of reference: *"In addition Concessionaire shall undertake to carry out capital dredging alongside the new Berth No.7 in the water area approx. 41000 sq. mtrs. between new Berth No.7 and navigation channel as shown in layout*

		to Appendix-4. The initial required depth alongside the new Berth No.7 would be (-) 14.5 m. However, whenever the Port undertakes dredging of the channel beyond (-) 14.5 m to facilitate handling of vessels of bigger parcel size, the Concessionaire shall be responsible for undertaking equivalent capital dredging along side the new Berth No.7 and the access to the berth from the channel, to facilitate handling of such vessels at new Berth No.7. The berth design and construction should be undertaken keeping the deeper draft (up to 16.5 m below Chart Datum) requirement in the future. The deck level will be 4.8 meters from the chart datum.")

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