

Member Secretary  
G. C. Z. M. A.  
Inward No. 6408  
Date: 05/03/2024

Annexure - A  
copy  
Annexure A Copy

*[Signature]*  
SB

## Application for CRZ Clearance

For

Proposed Construction of Jetty and Platforms for Loading-Unloading,  
Strengthening of existing bund along Zuari river

at

Village Odar & Xelvona,

Taluka Quepem, South Goa District,

Goa

*[Signature]*  
OK

*[Signature]*

*[Signature]*

By

M/s. Dinar Tarcar Resources (India) Pvt. Ltd

*[Signature]*



Prepared by  
Aditya Environmental Services Pvt Ltd,  
107, Hiren Light Industrial Estate, Mogul Lane,  
Mahim, Mumbai - 400016.  
Tel: (022) 42127500 Email: contact@aespl.co.in

February 2024

## APPENDIX - I

### FORM 1

#### Basic Information:

Sr. No.	Item	Details																																						
1.	Name of the Project/s	Proposed Construction of Jetty and Platforms for Loading and Unloading, Strengthening of existing bund along Zuari river.																																						
2.	Location or site alternatives under consideration	<p>Survey No 29/0, 30/1, 34(P), 35(P), 36/0, 37/0, 41/1, 41/4, 41/9, 41/24, 5/3 at Village Odar &amp; Xelvona, Taluka Quepem, District South Goa.</p> <p><b>Latitude:</b> 15°15'6.09"N</p> <p><b>Longitude:</b> 74°05'7.37"E</p> <p>The waterfront is allotted by Captain of Ports for designated use. The back-up land is owned on long lease by M/s. Dinar Tarcar Resources Pvt. Ltd. &amp; its sister concern M/s. Minescape Minerals Pvt. Ltd. for storage, handling of ores and non-hazardous dry goods, therefore, Project activities are site specific, and no site alternative is studied.</p>																																						
3.	Size of the project (in terms of total area)	<table border="1"> <thead> <tr> <th>Description</th><th>Area in sq.m</th></tr> </thead> <tbody> <tr><td>Project Area</td><td>127380</td></tr> <tr><td>Platforms (2 Nos.)</td><td>336</td></tr> <tr><td>Jetty</td><td>237</td></tr> <tr><td>Office</td><td>140</td></tr> <tr><td>Substation</td><td>100</td></tr> <tr><td>Garage</td><td>160</td></tr> <tr><td>Toilet</td><td>25</td></tr> <tr><td>STP</td><td>100</td></tr> <tr><td>Wheel wash</td><td>49</td></tr> <tr><td>Watch Tower</td><td>10</td></tr> <tr><td>Stock Yard 1</td><td>3342</td></tr> <tr><td>Stock Yard 2</td><td>3404</td></tr> <tr><td>Internal Road</td><td>12678</td></tr> <tr><td>Security Check post</td><td>12</td></tr> <tr><td>Washing Ramp</td><td>65</td></tr> <tr><td>Proposed Weighbridge</td><td>209</td></tr> <tr><td>Proposed Weighbridge Office</td><td>30</td></tr> <tr><td>Future Expansion</td><td>107056</td></tr> </tbody> </table>	Description	Area in sq.m	Project Area	127380	Platforms (2 Nos.)	336	Jetty	237	Office	140	Substation	100	Garage	160	Toilet	25	STP	100	Wheel wash	49	Watch Tower	10	Stock Yard 1	3342	Stock Yard 2	3404	Internal Road	12678	Security Check post	12	Washing Ramp	65	Proposed Weighbridge	209	Proposed Weighbridge Office	30	Future Expansion	107056
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4.	CRZ classification of the area	CRZ IVB (Zuari estuary), IB and CRZ III (land adjoining bank of Zuari estuary).																																						
5.	Expected cost of the project	14 Cr.																																						
6.	Contact Information	<p>Mr. Manish Agnihotri,            (General Manager – Mining, Logistics and Allied Services)            M/s. Dinar Tarcar Resources (India) Pvt. Ltd.,            M.G. Road, Panaji, Goa - 403001            0832-2435005 – 8/ 9158898840</p>																																						



## (II) Activity

Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

Sr. No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	No permanent or temporary change in land use land cover including increase in intensity of land use (with respect to local land use plan) is envisaged. The site is almost leveled land so no permanent or temporary change in topography is envisaged.
1.2	Details of CRZ classification as per the approved Coastal Zone Management Plan?	Yes	CRZ III (land adjoining bank of Zuari estuary) CRZ IB CRZ IVB (Zuari estuary)
1.3	Whether located in CRZ-I area?	No	Out of CRZ IA (Mangrove buffer zone)
1.4	The distance from the CRZ-I areas.	No	No CRZ-I area involved in project site. Nearest Mangroves present more than 100m.
1.5	Whether located within the hazard zone as mapped by Ministry of Environment and Forests/ National Disaster Management Authority?	No	--
1.6	Whether the area is prone to cyclone, tsunami, tidal surge, subduction, earthquake etc.?	No	No Such incidence reported yet, except Nisarga Cyclone during 1 <sup>st</sup> June 2020 and Tauktae Cyclone during 17 <sup>th</sup> May 2021. Yet the site is located upstream from direct impact.
1.7	Whether the area is prone for saltwater ingress?	Yes	The site is along the bank of Zuari estuary but, back-up area is not prone for saltwater ingress owing at elevation.
1.8	Clearance of existing land, vegetation and buildings?	Yes	Project site has few trees and bushes which may be needed to be cleared. Tree cutting will be kept at minimum.
1.9	Creation of new land uses?	No	The activities proposed are prevailing along Zuari estuary.
1.10	Pre-construction investigations e.g. bore hole, soil testing?	No	It will be carried out before commencement of construction.
1.11	Construction works?	Yes	Construction of jetty and platforms with ancillary facilities (strengthening of existing bund, Fuel and Water filling station, Toilet, Weigh Bridge, Road, office, stockyards etc.) which are required for loading, unloading and Jetty operations.
1.12	Demolition works?	No	Not required
1.13	Temporary sites used for construction works or housing of construction workers?	No	Not required, all workers, supervisors will be employed locally, as well as if required accommodation shall be provided in nearby villages.



Sr. No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
1.14	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	For Construction of jetty and Platforms Excavation will be limited to pile foundation in waterfront area. For ancillary facilities required for loading and unloading. Site is almost levelled no cutting-filling is required.
1.15	Underground works including mining or tunneling?	No	--
1.16	Reclamation works?	Yes	Only limited to construction of piles for jetty and platform.
1.17	Dredging/ reclamation/ land filling/ disposal of dredged material etc.?	No	The proposed site has adequate depth for anchoring and loading vessels. No dredging is proposed. Excavation of substratum for foundation of piles will be used within site for levelling. Total excavated volume will be about 50 m <sup>3</sup>
1.18	Offshore structures?	No	--
1.19	Production and manufacturing processes?	No	Not required
1.20	Facilities for storage of goods or materials?	Yes	Adequate facility will be provided for Stock yard and other ancillary facilities to stock ore, handling and loading, unloading of ores and non-hazardous dry goods.
1.21	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	No solid and liquid effluents will be generated; however adequate environment management measures shall be incorporated to control adverse effects if any by temporary storing and giving away to authorized recyclers.
1.22	Facilities for long term housing of operational workers?	No	Not required
1.23	New road, rail or sea traffic during construction or operation?	No	Road and Zuari River traffic is already existing in the region. Proposed new internal road of area 12678 sq.m shall connect the existing road.
1.24	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	Yes	Proposed new internal road of area 12678 sq.m.
1.25	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not required
1.26	New or diverted transmission lines or pipelines?	No	Not required
1.27	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not envisaged



Sr. No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
1.28	Stream and river crossings?	No	Not required
1.29	Abstraction or transfers of water from ground or surface waters?	No	Not required, water will be sourced from existing Government water supply scheme.
1.30	Changes in water bodies or the land surface affecting drainage or run-off?	No	Not envisaged
1.31	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Construction Phase: Construction materials will be transported to the site by means of trucks/ waterways. Workforce employed in construction phase will use the existing transport facilities. Operational Phase: There will be movement of trucks and barges carrying ore and other non-hazardous dry goods. Workforce employed in operation phase will use the existing transport facilities.
1.32	Long-term dismantling or decommissioning or restoration works?	No	Not required
1.33	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not required
1.34	Influx of people to an area in either temporarily or permanently?	Yes	No influx of people in this area is envisaged. However proposed jetty will enable the employment opportunities for the locals and existing employees, which are lost post closure of mining activity. Employment opportunities for construction laborers, skilled workers, mason etc. will be generated during construction phase which are in temporary in nature; total about 25 nos. Similar employment opportunities will be created for skilled workers, engineers, mechanics, electricians, labors etc. in operation phase; total about 210 nos.
1.35	Introduction of alien species?	No	Not required

**2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):**

Sr. No.	Information/checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	No	There exist coconut groves along the waterfront in some extent along with some trees & shrubs.

Sr. No.	Information/checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data																																	
			around the site.																																	
2.2	Water (expected source & competing users) unit: KLD	Yes	Construction Phase: Total 11 KLD Drinking purpose: 1 KLD from Govt. supply/ Tanker. Construction Purpose: 10 KLD from Tanker. Operation phase: Total 20 KLD Drinking purpose: 10 from Govt. supply/ Tanker. Commercial Purpose: 10 KLD from Tanker																																	
2.3	Minerals (MT)	No	Not applicable.																																	
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	<table><tr><th>Sr. No.</th><th>Material</th><th>Details</th></tr><tr><td>1</td><td>Cement</td><td>2500 Bags</td></tr><tr><td>2</td><td>Steel</td><td>40 T</td></tr><tr><td>3</td><td>Metal (&lt; 40mm)</td><td>300 m<sup>3</sup></td></tr><tr><td>4</td><td>Sand</td><td>250 m<sup>3</sup></td></tr><tr><td>5</td><td>NP3 RCC Pipe 1000mm dia.</td><td>15 Nos</td></tr><tr><td>6</td><td>NP3 RCC Pipe 600mm dia.</td><td>25 Nos</td></tr><tr><td>7</td><td>Trap rubble</td><td>200 m<sup>3</sup></td></tr></table>	Sr. No.	Material	Details	1	Cement	2500 Bags	2	Steel	40 T	3	Metal (< 40mm)	300 m <sup>3</sup>	4	Sand	250 m <sup>3</sup>	5	NP3 RCC Pipe 1000mm dia.	15 Nos	6	NP3 RCC Pipe 600mm dia.	25 Nos	7	Trap rubble	200 m <sup>3</sup>									
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2.5	Forests and timber (source – MT)	No	NA																																	
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	<table><tr><th>Machinery</th><th>No./ Capacit y</th><th>Diesel Quantity</th></tr><tr><td>Volvo (2.30 m<sup>3</sup>)</td><td>2</td><td>22 L/ Hr</td></tr><tr><td>JCB (0.60 m<sup>3</sup>)</td><td>1</td><td>18 L/ Hr</td></tr><tr><td>Truck/Tipper (up to 14 m<sup>3</sup>)</td><td>10-40 Nos</td><td></td></tr><tr><td>Concrete Mixer (0.60 m<sup>3</sup>)</td><td>1 No</td><td>7-8 L/ hr</td></tr><tr><td>Needle Vibrator</td><td>5 HP</td><td></td></tr><tr><td>Crane (25T)</td><td>1 No</td><td></td></tr><tr><td>Diesel Generator (125-250 KVA)</td><td></td><td></td></tr><tr><td>Water tanker (10000 L)</td><td>2 Nos</td><td>0.5 L/ Km</td></tr><tr><td>Wheel Loader (2.5-3.5 m<sup>3</sup>)</td><td>6 Nos</td><td>18-20 L/ hr</td></tr><tr><td>Barge Loader</td><td>1200-1500 TPH</td><td></td></tr></table>	Machinery	No./ Capacit y	Diesel Quantity	Volvo (2.30 m <sup>3</sup> )	2	22 L/ Hr	JCB (0.60 m <sup>3</sup> )	1	18 L/ Hr	Truck/Tipper (up to 14 m <sup>3</sup> )	10-40 Nos		Concrete Mixer (0.60 m <sup>3</sup> )	1 No	7-8 L/ hr	Needle Vibrator	5 HP		Crane (25T)	1 No		Diesel Generator (125-250 KVA)			Water tanker (10000 L)	2 Nos	0.5 L/ Km	Wheel Loader (2.5-3.5 m <sup>3</sup> )	6 Nos	18-20 L/ hr	Barge Loader	1200-1500 TPH	
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2.7	Any other natural resources (use appropriate standard units)	No	Not envisaged																																	



Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

Sr. No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	Use of hazardous substance is only limited to oil, paint, varnishes, grease etc. which will be handled in accordance with the Hazardous Waste Rules.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not envisaged. However, adequate sanitation & suitable drainage and waste management measures will be adopted in both construction and operational phase, which will restrict stagnation of water or accumulation of waste. These will effectively avoid the reproduction and growth of disease vectors.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	Owing to generation of new indirect employment opportunities (about 2000) Living standards will improve in surrounding communities due to increase of economic activities.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Negative effects, not envisaged, however economic activity in this area will uplift the way of living in this area.
3.5	Any other causes	No	Not envisaged

#### 4. Production of solid wastes during Construction or Operation or Decommissioning (MT/month)

Sr. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	--
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Municipal waste generated will be stored separately as biodegradable and non-biodegradable. Biodegradable waste will be converted into manure while non-biodegradable will be disposed in approved dumping sites as per GSPCB guidelines. The domestic wastes will be bare minimum.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Empty containers of paint, varnishes, grease etc. Hazardous Waste will be stored at designated impervious lined place and given it to authorized recycler as per GSPCB guidelines.
4.4	Other industrial process wastes	No	Not applicable.
4.5	Surplus product	No	Not applicable.



Sr. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Mobile Bio-toilets will be used during construction phase. During Operation phase sewage treatment plant will be provided. STP Capacity 10 KLD
4.7	Construction or demolition wastes	No	Not required
4.8	Redundant machinery or equipment	No	Not envisaged
4.9	Contaminated soils or other materials	No	Not envisaged
4.10	Agricultural wastes	No	Not applicable
4.11	Other solid wastes	No	Not envisaged

**Release of pollutants or any hazardous, toxic or noxious substances to air (kg/hr)**

Sr. No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Emissions mainly from earth moving equipment, movement of construction vehicles in construction phase. In the operation phase, emissions are envisaged from barge movement and running of D.G sets in case of power failure and cranes/ loaders etc. All machinery and equipment shall be maintained regularly as per the standard guidelines to minimize emission. DG 250 KVA
5.2	Emissions from production processes	No	The process involves the loading and unloading of goods. Adequate dust suppression will be installed to control the emission.
5.3	Emissions from materials handling including storage or transport	Yes	Fine ore dust will be generated during handling and loading. To minimize dust emission, loading will be done by mechanized means (Trucks/ Mobile Barge Loader/ Grab Crane) and through shoots, water sprinkling and development of green belt around site. When not in use, the stockpile will be covered by tarpaulin. All vehicles and construction machinery will be properly serviced and maintained in good working conditions.
5.4	Emissions from construction activities including plant and equipment	Yes	Emissions mainly from earth moving equipment, movement of construction vehicles in construction phase. All vehicles and construction machinery will be properly serviced and maintained in good working conditions.



Sr. No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Dust generation is mainly from earth moving equipment, movement of construction vehicles in construction phase. In the operation phase, fine ore dust will be generated during handling and loading. Continuous water sprinkling will be done to suppress dust generation. No odour from handling of materials is envisaged.
5.6	Emissions from incineration of waste	No	Not applicable.
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not envisaged
5.8	Emissions from any other sources	No	Not envisaged

**Generation of Noise and Vibration, and Emissions of Light and Heat:**

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Earth moving equipment, movement of construction vehicles in construction phase. In the operation phase, running of cranes/ hydras, D. G. Sets etc. will generate noise level. All equipment's shall be maintained as per the standard provisions to maintain the noise within the permissible limits.
6.2	From industrial or similar processes	No	Not applicable.
6.3	From construction or demolition	Yes	Construction activities at site will generate noise levels within the permissible limits. No demolition work envisaged.
6.4	From blasting or piling	Yes	Limited to pile driving.
6.5	From construction or operational traffic	Yes	Limited to vehicle movement and earth moving equipment in construction phase and transportation, ore handling, loading-unloading operations in operation phase.
6.6	From lighting or cooling systems	No	Not applicable
6.7	From any other sources	No	Not envisaged

**Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:**

Sr. No.	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	Yes	No hazardous material shall be stored at the site. Yct Spillage of ore during handling and surface run-off during storage may lead to contamination of Zuari estuary. Hence adequate arrangement will be made towards fuel dispensing & ore handling to avoid/ control spillage.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Sewage will be disposed through sewage treatment in operation phase.
7.3	By deposition of pollutants emitted to air into the land or into water	No	Not envisaged
7.4	From any other sources	No	Not envisaged
7.5	Is there a risk of long-term build up of pollutants in the environment from these sources?	No	Not applicable

**Risk of accidents during construction or operation of the Project, which could affect human health or the environment:**

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	Not applicable
8.2	From any other causes	No	Not envisaged
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	Not envisaged



Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality:

Sr. No.	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
9.1	Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: Supporting infrastructure (roads, power supply, waste or wastewater treatment, etc.) Housing development Extractive industries Supply industries. Other	No	Not envisaged
9.2	Lead to after-use of the site, which could have an impact on the environment	No	Not envisaged
9.3	Set a precedent for later developments	Yes	May lead to positive development, as it will provide employment and economic opportunity for local as well as other Jetties which are close to mining.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects.	No	Not envisaged

#### Environmental Sensitivity

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Mollem National Park & Bhagwan WLS	8 km towards East
		Bondla Wildlife Sanctuary	14 km towards North
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Reserve forests	1.5 km towards Northeast (closest) 2.9 towards Northeast 2.8 towards North 5.0 towards East 6.8 towards East 4.7 towards Northwest 6.7 towards Northwest And few more...

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
		Nanda Lake, Village Quepem, Quepem Taluka, South Goa RAMASAR Wetland Site	2.9 km towards southeast
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Zuari River	Site on Bank of Zuari River
4	Inland, coastal, marine or underground waters	Zuari River	Site on Bank of Zuari River
5	State, National boundaries	Not Applicable	
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Historical Places are below: also known as Tourist Places (approximate arial distance with direction):	
		Natural Caves – 1, Rivona	11.96 km (South)
		Natural Caves – 2, Rivona	11.58 km (South)
		Palacio do Deao, Historical Mansion, Quepem	6.30 km (Southwest)
		Ancestral Goa – Big Foot, Museum, Salcete	13.70 km (Northwest)
		Miranda Mansion, Manor house, Loutolim	14.00 km (Northwest)
		Menezes Braganza House, Mansion, Chandor	5.20 km (Southwest)
		Historical goan buildings around, Borda, Margao	14.30 (West)
		Fernandes Heritage House, Chandor	4.45 km (Southwest)
		Shigao Historical Caves, Shigao	13.66 km (Northeast)
		Rachol Historical Fort Gate, Rachol	10.72 km (Northwest)
		Patriarchal Seminary of Rachol	10.68 km (Northwest)
		Rachol Historical Bridge	9.87 km (Northwest)
		Our Lady of Snows Church, Rachol	9.80 km (Northwest)
		Religious Places are below (approximate arial distance with direction):	
		1) Shree Santadurga Temple, Aquem-Baixo	12.40 km (West)



Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
		2) Shri Kamakshi Temple, Shiroda	8.43 km (Northwest)
		3) Sri Chandeswar Bhootnath Mandir, Paroda	8.42 km (Southwest)
		4) Shri Damodar Sansthan (Temple), Zambaulim, Quepem	9.00 km (South)
		5) Shree Ramnath Temple, Loutolim	14.44 km (Northwest)
		6) St. Francis Xavier Church, Borim	13.18 km (Northwest)
		7) St. Alex Church, Curtorim	7.85 km (Northwest)
		8) St. Sebastian Church, Aquem	13.00 km (West)
		9) St. Rita's Church, Maina	9.42 km (Northwest)
		10) Jama Masjid, Sanguem	7.60 km (Southeast)
7	Defense installations		
8	Densely populated / built-up area	1) Curchorem - Cacora (M CI), Population- 22730, as per census 2011.	1.00 km (Southeast)
		2) Quepem (M CI), Population- 14795, as per census 2011.	4.80 km (Southwest)
		3) Margao (M CI), Population- 87650, as per census 2011.	10.50 km (Northwest)
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Sonu Kamat Hospital, Kakoda	1.45 km towards east
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Notified Heritage Sites (Declared by Archeological Survey of India) with approximate distance & direction:	
		1) Excavated Site, Chandor	4.08 km (Southwest)
		2) Mahadev Temple, Kurdi	11.33 km (Southeast)
11	Areas already subjected to pollution or environmental	Not Applicable	

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
	damage. (those where existing legal environmental standards are exceeded)		
12	Areas susceptible to natural hazard which could because the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	The Project will be designed by taking into consideration these factors as per relevant codes and standards. The proposed project site has not reported any kind of natural disasters like earthquakes, land subsidence, floods etc.	

Date: 04.03.2024  
Place: Panjim, Goa

Mr. Manish Agnihotri,  
(General Manager – Mining, Logistics and Allied Services)  
M/s. Dinar Tarcar Resources (India) Pvt. Ltd.,  
M.G. Road, Panaji, Goa - 403001  
0832-2435005 – 8/ 9158898840



# GOA COASTAL ZONE MANAGEMENT AUTHORITY

C/o Department Environment (Govt. of Goa)  
4<sup>th</sup> floor, Dempo Tower, Patto Plaza, Panaji Goa-403 001  
Website: [www.czma.goa.gov.in](http://www.czma.goa.gov.in)

Ref. No. GCZMA/S/23-24/86/ 806

Date: 25/04/2025

To,  
The Member Secretary,  
Goa State Environment Impact Assessment Authority (GSEIAA),  
Panaji – Goa.

**Sub: Recommendation for CRZ Clearance for the Proposed Construction of Jetty & Platforms for Loading & Unloading, Strengthening of existing bund along Zuari river at Sy. No. 29/0, 30/1, 34(P), 35(P), 36/0, 37/0, 41/1, 41/4, 41/9, 41/24, 5/3 at village Odar & Xelvona, Quepem Taluka – Goa of M/s. Dinar Tarcar Resources (India) Pvt. Ltd.**

**Ref: Vide application dated 05/03/2024.**

Sir / Madam,

With reference to the application on the above-mentioned subject, the Goa Coastal Zone Management Authority (GCZMA) has examined the aforementioned proposal in its 427<sup>th</sup> meeting held on 28/01/2025 in accordance with the provisions of para 4.2(ii) (c) of the CRZ Notification, 2011 as amended from time to time. The Authority after detailed discussion decided to recommend for grant of CRZ Clearance for Proposed Construction of Jetty & Platforms for Loading & Unloading, Strengthening of existing bund along Zuari river at Sy. No. 29/0, 30/1, 34(P), 35(P), 36/0, 37/0, 41/1, 41/4, 41/9, 41/24, 5/3 at village Odar & Xelvona, Quepem Taluka - Goa. The details of the proposed structures are tabulated as follows: -

Sr. No.	Description of Structures	Area in Sqmtrs
1.	Platform / quay for Loading and Unloading, storage, handling, of ores and non-hazardous dry cargo	336.00sqmtrs
2.	Jetty for Loading and Unloading, storage, handling, of ores and non-hazardous dry cargo	237.00sqmtrs
3.	Gabion wall for strengthening of existing bund	267.00R.Mt

The CRZ Clearance may be considered with subject to compliance of the following conditions.

1. All the provisions of the CRZ Notification, 2011 as amended should be strictly complied with. In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the GCZMA.
2. There shall not be any disturbance to navigation channel, traditional fishing activities and free flow of water due to said activity.
3. No additional construction or extension into the river should be done without

obtaining the permission of this Authority.

4. No cutting of mangroves in surrounding vicinity if any.
5. No disturbance / hindrance to the fishing activities in surrounding areas.
6. This NOC/ Approval is issued without prejudice to any other permission as required under the law including that of ownership, court case etc. As such, prior to the commencement of the aforementioned 'Construction', work, it will be incumbent upon the applicant to obtain permission from any other authority as required under the law including the local authority, Town and Country Planning Department, Revenue Authority etc.
7. Construction debris shall not be disposed in the CRZ area.
8. Traditional access/easement shall not be blocked if any.
9. The applicant / occupier should ensure that no waste is discharged into the nearest water body from the proposed construction activities.
10. All other mandatory permissions from different Departments / Authorities should be obtained prior to the commencement of work.
11. The Applicant shall also obtain NOC from the Goa State Pollution Control Board (GSPCB) when operations are commenced.
12. The GCZMA may stipulate any additional conditions subsequently; if deemed necessary, for environmental protection, which shall be complied with.
13. All conditions stipulated in the CRZ Notification 2011, as amended shall be applicable to the applicant, owner, architect, project consultant, builder, developer and occupier. They shall be liable for violation or non-adherence to the provisions stipulated therein.
14. In the event of any change in the project profile, a fresh reference shall be made to the GCZMA.
15. This permission shall be valid for 07 years from the date of issue of this letter.
16. The safe disposal of waste water and solid wastes generated during the construction phase should be ensured.
17. Disposal of debris including the excavated material during construction phase shall not create adverse effect on neighbouring communities and shall be disposed off within the project site with the approval of the competent authority after taking the necessary precautions for general safety and health aspects.
18. Vehicles hired for bringing construction material at site should be in good conditions and confirm to applicable air and noise emission standards.
19. Ambient noise levels should confirm to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality should be closely monitored during construction phase.
20. The construction materials and debris shall be properly stored and handled to avoid negative impacts such as air pollution and public nuisances by blocking the roads and the public passages. Appropriate barricading shall be done and signboards shall be put at such sites.



21. Quarterly monitoring reports should be submitted to the GCZMA in soft and print format.
22. It is encouraged that dredging depth be reassessed by limiting to the actual, minimum requirement such that the dredging volume can be minimized.
23. Care should be taken at all times to avoid any water / air / noise pollution during the dredging activity, which should be carried out by standard operating procedures and guidelines.
24. Regular site inspections shall be carried by the team comprises of the Expert Members of the GCZMA and or other Authorities / Departments to ensure compliance of aforesaid condition. In case of any non-compliance of the terms and conditions stipulated above, the action as deemed fit including that of demolition of structure.
25. It is of paramount importance that a proper site be identified for dumping and environmental viability of this site should be estimated. Any negligence on this part can be detrimental to the environment.
26. Prior to the commencement of the development work on the site, it will be incumbent upon the applicant to obtain all the requisite permissions / NOC etc., as required under law.
27. The plan approved by the Authority for the Proposed Construction of Jetty & Platforms for Loading & Unloading, Strengthening of existing bund along Zuari river at Sy. No. 29/0, 30/1, 34(P), 35(P), 36/0, 37/0, 41/1, 41/4, 41/9, 41/24, 5/3 at village Odar & Xelvona, Quepem Taluka – Goa is annexed herewith.
28. This is liable to be revoked, if it is found, at any stage, that the application contained false information / wrong plan / calculations / documents / misleading or false information.

*Yours faithfully,*

  
(Sachin S. Desai)

**Member Secretary (GCZMA)**

o/c

**Encl: As above**

Copy to:

1. **P. A to Secretary (Environment) / Chairman (GCZMA)**, Secretariat, Porvorim.....for kind information.
2. **The Chief Town Planner, Town & Country Planning Department**, Patto, Panaji-Goa.....for information and necessary action.
3. **The Dy. Collector & SDO, (Quepem)**, Quepem- Goa....for information and necessary action.
4. **The Captain, Department of Ports**, Panaji-Goa..... for information and necessary action
5. **The Commissioner, Corporation of the City of Panaji**, Panaji Taluka ....for information and necessary action.

6. **The Member Secretary, Goa State Pollution Control Board, Saligao.....** for information and necessary action.
7. **The Secretary, Village Panchayat Xelvona, Quepem Taluka, Goa.....** for information and necessary action.
8. **M/s. Dinar Tarcar Resources (India) Pvt. Ltd, M.G. Road, Panaji - Goa .....** for information and necessary action.



built up area of 510.00 sq.mtrs. with the height of 10.50 m.

Pictures are attached as "Annexure-I".

**Decision:** The Authority after detailed discussion decided to approve the proposal for proposed jetty terminal building (Reconstruction of building) in Sy. No. 32/2 of village Penha De France, taluka Bardez - Goa.

Case No. 2.19

*Extract of 427 GCZMA Meeting held on 28/01/2022*

Proposed construction of Jetty & Platforms for Loading & Unloading strengthening of existing bund along Zuari river at Sy. No. 29/0,30/1, 34(P), 35(P), 36/0,37/0, 41/1, 41/4, 41/9, 41/24,5/3 at village odar, & Xelvona, Quepem Taluka-Goa.

The Office of the GCZMA is in receipt of an application dated 05/03/2024 from M/s. Dinar Tarcar Resources(india) Pvt. Ltd., M.G. Road, Panaji, Goa, with regards to Proposed construction of Jetty & Platforms for Loading & Unloading strengthening of existing bund along Zuari river at Sy. No. 29/0,30/1, 34(P), 35(P), 36/0,37/0, 41/1,41/4, 41/9, 41/24,5/3 at village odar, & Xelvona, Quepem Taluka-Goa.

**Site Inspection Report:** The said site was inspected by Radha Rao, Expert Member (GCZMA), Tejas G. Naik, Engineer (GCZMA) and Gorakh Tuenkar, Field Surveyor, (GCZMA)

i) **Name of the Applicant:** M/s. Dinar Tarcar Resources(india) Pvt. Ltd., M.G. Road, Panaji, Goa.

ii) **Date of the Application:** 05/03/2024

iii) **Application for:** Proposed construction of Jetty & Platforms for Loading & Unloading strengthening of existing bund along Zuari river at Sy. No. 29/0,30/1, 34(P), 35(P), 36/0,37/0, 41/1,41/4, 41/9, 41/24,5/3 at village odar, & Xelvona, Quepem Taluka-Goa.

iv) **Date of construction based on the documents:** NA.

v) **Date of Inspection:** 27/03/2024

vi) **Name of the Official / Expert Member, GCZMA:**

- 1) Radha Rao, Expert Member (GCZMA)
- 2) Tejas G. Naik, Engineer (GCZMA)
- 3) Gorakh Tuenkar, Field Surveyor, (GCZMA)

vii) **Name of the Parties Present:** Manish Agnihotri, G.M Dinar Tarcar Resources (india) pvt.ltd.

viii) **Location:** Sy. No: 29/0, 30/1, 34(P), 36/0, 37/0, 41/1, 41/4, 41/9, 41/24, 5/3

**Village:** Odar **Taluka:** Quepem.

ix) **Classification of CRZ Area:** Survey No. 36/0, 37/0, 41/1,41/4, 41/9, 41/24 : Falls within No Development Zone - CRZ III

x) **Existence of Sand dunes and its height:** No.

xi) **Whether any lagoons, backwaters or other water bodies exist in the plot:** NO.

xii) **Existence of Vegetation, if any:** Garden trees.

xiii) **Plinth area of the structure / alleged violation:** NA.

xiv) Nature of the structure: Permanent structure (Proposed Drawings)

xv) Approvals / NOC's issued by any other Department's / Authorities: NO.

xvi) Whether the proposed construction meet the CZMP Guidelines: Yes

**Details of Proposed Project :**

The Applicant M/s. Dinar Tarcar Resources(india) Pvt.Ltd. has proposed for construction of Jetty & Platforms for Loading & Unloading, Strengthening of existing Bundalong zuari river.

**Need/Purpose of the proposed Project:** The Location has an area of 1,27,380 m<sup>2</sup> for construction of modern Jetty and Platforms to handle Iron ore with many other industrial products. The project would contribute substantially to increase the various supplies to both domestic and exports markets. The average annual total handling of cargo would amount to 3MT.

**CSIR -National Institute of Oceanography report**

With Reference to the CSIR -National Institute of Oceanography report The Proposed Part of plots survey no.s 36/0, 37/0, 41/1,41/4, 41/9,41/24 in odar Taluka Quepem, South fall within the No Development zone(River NDZ) From River HTL – CRZ III

The proposed jetty partly falls in NDZ (River NDZ) and CRZ IB

The proposed Gabion wall falls in CRZ IB

The proposed bollards, light tower weighbridge, stockyard-1, falls in NDZ(River NDZ) area.

**Findings from EIA :**

1. The project is regarding construction of the jetty and platform for Loading and Unloading, storage, handling, of ores and non-hazardous dry cargo.
2. The proposed site is located in survey nos. 29/0, 30/1, 34(P), 35(P), 36/0, 37/0,41/1,41/4,41/9 at village odar & xelvona.
3. Activities :

Description	Size	Area in Sq.m
Platform/quay	12mx10m	336
Jetty	12mx18m	237
Strengthening of bunds with Gabion	267 m (length)	

**4. Environmental Aspects in Project Activities :**

1. Proposed activities are located in sub-tidal and intertidal region
2. Cutting of trees in proposed construction
3. Construction of ramp and jetty may lead to obstruction of sediment transportation along shore resulting in sediment deposition towards west side of structure.
4. Cutting and filling of land is proposed for construction of road.
5. Construction activity will result in increase in turbidity which will affect the marine ecosystem temporarily.
6. Construction materials to be consumed in proposed project are cement, steel, Metal(<40mm),sand, NP3 1000mm, NP3 600mm dia, Trap rubble
7. Water requirement for the project will be sourced from public water supply and tanker water. 10.5 cubic meter per day water will consumed.



8. Solid & Hazardous Waste Generation the non-degradable waste will be first segregated so as to remove the material that can be recycled. Plastic waste will be collected and handed over to authorised scrap dealers. Hazardous waste such as oily rags, empty drums, waste oil shall be disposed to recyclers authorised by Goa Pollution Control Board.

**Environmental Aspects and Impacts of Proposed Project :**

As per the Environmental impact matrix(EIM) prepared in accordance to EIA report without mitigation measures as EMP The net impacts due to proposed upgradation, new infrastructure facilities will be negative 1950 this indicates significant adverse impact on environment, requiring well designed control measures. Environmental impact matrix with mitigation measures as EMP The net impacts due to proposed upgradation, new infrastructure facilities will be negative 700 this indicates non appreciable adverse impact on environment. Therefore, in view of the project proponent to conduct activities by following the mitigation measures.

**Conclusions from EIA report :**

1. The proposed project will meet its water and energy requirement by public water supply and tankers.
2. Wastewater generated will be disposed in septic tank, hazardous waste such as empty containers and used batteries will be given to GSPCB authorised recyclers and solid waste to authorised recyclers.
3. As per the study done for 331.3km<sup>2</sup> the study area comprises of about 6.03% of water body. As per LULC map other than water body most study area falls under mining and industry. Built up residential area is about 10.97 %.The main plantation in region is coconut.
4. As per the EIM evaluation has been done for land environment, air environment, water environment, solid and hazardous waste management, biological environment socio economic environment with & without control measures. Proposed facilities will have negative impacts if proper mitigation measures are not taken.

**Details of Proposed drawings (Submitted) :**

**• Proposed barge loading (jetty) – 20mx9.50m**

Details of the jetty:

- a. Length of deck slab =20m
- b. Width of Deck slab =9.0m

**Details of Foundation and superstructure** – R.C.C pile foundation is adopted for the foundation of jetty construction. 7 nos. of pile with spacing 2.250m and 1.50m(at ends) are adopted as per the design drawings. R.C.C pile cap with length of 12+1.7+1.7=15.4m and width of 1.5m. The deck of the jetty is resting on girders and girder is resting on R.C.C columns of 400mm x 750mm and R.C.C tie beams are used as bracings for support to girders. The deck slab is resting on main girders and tie beams are used as bracings to main girders.

**• Concrete Retaining wall is proposed at approach of jetty.**

Details of R.C.C retaining wall :

- Height = 3.5m from Ground level.
- Depth of Foundation = 1.3m (rubble soling and Pcc)
- Width at bottom = 3.670m

**• Unloading Platform :**

RCC slab of 12.00 m x 10.00 m with R.C.C Plinth beams provided of dimension of 600mm x 1500mm

Tie beams = 1100mm x 750 mm

Rcc piles are provided of 750mm dia.

- **Weigh Bridge** : Dimension 7.86m x 5.50m is provided. With 7mx3m weigh bridge platform.
- **Gablon wall** : The project proponent has proposed gabion wall construction. The Details of the same are as follows:  
Construction material = Basaltic stones of not less than 30cm in size are Used, hard lateritic boulders are used for foundation. Gabion is made of mechanically woven hexagonal shape, wire mesh of dia 3.2mm.  
The detailed drawing of the Gabion wall is not submitted by the applicant.
- **Proposed office and parking area** : 20m x 7m permanent structure with utilities rooms as cloak room, store tool room, battery room, jr. electrical room, jr mechanical room, manager room. Parking area 13m x 20m is proposed in the drawing. The section drawing of the proposed office room is not shown in the drawing.
- **Watch tower**: Tower height= 14m  
Platform height = 10 m  
Canopy height = 3m from platform  
Staircase width=1mts.
- **Proposed weigh bridge office** :  
dimension – Length x breadth = 3m x 2.5m  
Height = 5 m from ground level.
- **Proposed Road**: Proposed road of 8.00 meters width and 1163.00 meters in length.  
In the proposed drawing project proponent has shown proposed road of 25m width by SWR and Goa Govt. the details of the same are not submitted.
- **Washing Ramp & oil collection/ separation tank** : Dimensions 15.60 m x 10.6m, height of structure 8.79m, collection tank dimension 5.8m x 3m with 8m depth, oil separation chamber of 7.5m x 2.1m with 8m depth. The disposal of the waste is not mentioned.

#### **Recommendations:**

1. The proposed construction should be carried out strictly as per the provisions of CRZ notification, 2011 (as amended from time to time) and guidelines / clarifications given by MoEF from time to time.
2. In the proposed drawing project proponent has shown proposed road of 25m width by SWR and Goa Govt. the details of the same are not submitted.
3. Construction debris shall not be disposed in the CRZ area.
4. Environment Management Plan (EMP) shall be implemented effectively.
5. All other mandatory permissions from different Departments / Authorities should be obtained prior to the commencement of work.
6. The safe disposal of waste water and solid wastes generated during the construction phase should be ensured.
7. Disposal of debris including the excavated material during construction phase shall not create adverse effect on neighbouring communities and shall be disposed off within the project site with the approval of the competent authority after taking the necessary precautions for general safety and health aspects.
8. Vehicles hired for bringing construction material at site should be in good conditions and confirm to applicable air and noise emission standards.



9. Ambient noise levels should conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality should be closely monitored during construction phase.
10. The construction materials and debris shall be properly stored and handled to avoid negative impacts such as air pollution and public nuisances by blocking the roads and the public passages. Appropriate barricading shall be done and signboards shall be put at such sites.
11. In the event of any change in the project profile, a fresh reference shall be made to the GCZMA.
12. The Mangroves, if any, on the site should not be disturbed in any way.
13. The GCZMA or any other competent Authority may stipulate any additional conditions subsequently, if deemed necessary, for environmental protection, which shall be complied with.
14. Quarterly monitoring reports should be submitted to the GCZMA in soft and print format.

Report Enclosed with EIA Report.

The proposal was discussed in 415<sup>th</sup> GCZMA Meeting held on 03/10/2024. *"The Authority has perused their EIA report prepared by the NIO-Goa which is one of the agencies recognized by the MoEF&CC to carry out EIA studies in CRZ areas. As a project would have non appreciable adverse impact with due implementation of control measures we find no hesitation to approve the said proposal."*

Vide application dated 16/12/2024 the applicant has submitted the revised drawing / plans for the said proposal.

**Decision:** The Authority after detailed discussion decided to approve the proposal.

Case No. 2.20

Proposed construction of Jetty & Platforms for Loading & Unloading strengthening of existing bund along Zuari river at 69/2,83/0 and 84/2 at village Xelvona, Quepem Taluka-Goa.

The Office of the GCZMA is in receipt of an application dated 08/04/2024 from M/s. Dinar Tarcar Resources(india) Pvt. Ltd., M.G. Road, Panaji, Goa, with regards to Proposed construction of Jetty & Platforms for Loading & Unloading strengthening of existing bund along Zuari river at 69/2,83/0 and 84/2 at village Xelvona, Quepem Taluka-Goa.

**Site Inspection Report:** The said site was inspected by Mr Ganesh Velip, Expert Member (GCZMA), Tejas G. Naik, Engineer (GCZMA) and Balkrishna Surlakar, Field Surveyor, (GCZMA)

i) **Name of the Applicant:** M/s. Dinar Tarcar Resources (India) Pvt. Ltd., M.G. Road, Panaji, Goa.

