GOVERNMENT OF INDIA
MINISTRY OF PORTS, SHIPPING AND WATERWAYS
RAJYA SABHA
UNSTARRED QUESTION NO- 767
ANSWERED ON- 26/07/2021

STATUS OF GREEN PORT INITIATIVE

767. SMT. SHANTA CHHETRI:

Will the Minister of PORTS, SHIPPING AND WATERWAYS be pleased to state:

(a) the progress status of green port initiative State-wise and year-wise for the last three years;

(b) whether Shore-power or cold ironing or alternative maritime power is being promoted for optimum use in all ports in India; and

(c) if so, the details thereof, if not, the reasons therefor?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF PORTS, SHIPPING AND WATERWAYS (SHRI SHANTANU THAKUR)

(a) The progress status of green port initiative Port-wise State-wise and year-wise for the last three years is at Annexure-I.

(b) & (c) Yes, Sir. Shore-Power or cold ironing or alternative maritime power is promoted for optimum use in all the major ports in the country. The details are at Annexure-II.

Reply to Point (a)

Sl. No.	Name of Green Port initiative	Year-wise progress		
		2018-19	2019-20	2020-21
New Mangalore Port				
1.	Generation of Solar Energy by which the port has achieved 100% solarisation and the entire power requirement of the port is now fully met with solar energy	100% (5.19 MW)	100%	100%
2.	Mechanization of Coal handling	50%	100%	100%
3.	Converted all light fittings to LED at Administrative bldg., Hospital, Traffic bldg., street lights etc.	20%	40%	60%
4.	Rain harvesting	80%	90%	90%
5.	Green belt requirement of 33% of land area	100%	100%	100%
6.	Installation of 1.20 MLD sewage treatment plant using SBR Technology	100%	100%	100%
Kamarajar Port				
1.	Installation of 20KLD sewage treatment plant at Administration Building and 10KLD plant at car parking yard.	Detailed project report has been prepared	Acceptance of DPR, estimate sanction and preparation of tender document	Open tender has been invited and cancelled due to objection raised by one of bidder and dedicated for re-tender
Mormugao Port				
1.	Roof Top Solar Power System 200KW (150KW + 50KW) at Mormugao Port Trust	Nil	Nil	Nil
		Completed on 03.10.2016.		
2.	Shore Power supply to breakwater & Mole berth (400KVA) at Mormugao Port Trust	Provided/ completed on 21.11.2018	Nil	Nil
3.	Shore power supply at Finger Jetties	Nil	Nil	Provided on 22.04.2021

Sl. No.	Name of Green Port initiative	Year-wise progress		
		2018-19	2019-20	2020-21
	No.2 and 3, (400 KVA) at Mormugao Port Trust			
4.	Tree Plantation at Port's Operational and Non- Operational areas (in Nos)	1000	2500	1350
Cochin Port				
1(i)	Monitoring Water and Sediment Quality parameters at seven locations in the back waters of Cochin Port	Monitoring Done throughout the year.	Monitoring Done throughout the year.	Monitoring Done except during April, May, July in 2020 and March 2021 due to Covid-19 pandemic.
(ii)	Monitoring of Ambient Air Quality at four Locations in W/Island, Cochin Port	Monitoring Done throughout the year.	Monitoring Done throughout the year	Monitoring done throughout the year except during April & May 2020 due to Covid-19 pandemic.
(iii)	Stack Monitoring near the DG Set in the Power House	Monitoring Done throughout the year	Stack Monitoring discontinued since June 2019 as the DG set became non-operational/ decommissioned	-
(iv)	Noise level Monitoring at three locations in the Port area	Monitoring Done throughout the year	Monitoring Done throughout the year	Monitoring done except during April to July 2020 due to Covid-19 pandemic
2	Effluent Treatment Plant at Cochin Port Trust Hospital	Operated in good condition	Operated in good condition	Operated in good condition
3	Plantation of Tree Saplings	Planted 250 Nos saplings	Planted 50 Nos saplings	Planted 100 Nos saplings
4	Installation of Bio- digesters	--	Installed 2 nos. bio digesters of capacity 5000 Litres & 4500 Litres respectively at the 2 Nos. Public Toilet blocks at North End of Willingdon Island and was functioning in good condition	Working in good condition

Sl. No.	Name of Green Port initiative	Year-wise progress		
		2018-19	2019-20	2020-21
5	Septage Treatment Plant of 100 cu. m. capacity in the Port area at South end of Willingdon Island	--	In operation	In operation
6	Road sweepings, office waste, Waste materials from quarters, shops etc. are being collected, segregated to Bio- Degradable & Non Bio Degradable by the Kudumbasree workers engaged by the Kochi Municipal Corporation and transported to the Waste Disposal Plant of KMC at Brahmapuram.	Disposal done	Disposal done	Disposal done
7	Single Used Plastics like Plastic Kits, Bags, Bottles etc. are being collected in the Dust Bins provided at various Office Premises and are being shredded into small particles and reused it by mixing the same in the Tar Mix for road work.	------	Work Done	Work done
8	Solar power plants by Port	150 Kwp roof mounted solar panels.	100 Kwp ground mounted solar panels.	Contract awarded for 1.5Mwp floating Solar Project in the Backwaters near Cochin Port Trust walkway avenue between BOT junction and Kannangatt bridge at W/Island, under RESCO Model. The project will be completed in January 2022
9	Shore power /cold ironing	320 Amps at UTL berth as part of Phase-I	2250 Amps consisting of 1. 500 Amps at UTL berth as	2000 Amps at AMBA Jetty for NTRO/GoI berth.

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		2018-19	2019-20	2020-21
			part of Phase-II. 2. 1500 Amps at Q2/Q3 berths and 3. 250 Amps at Q8 berth.	
Deendayal Port				
1	Preparation of Environment Management & Monitoring Plan (EMMP) or Green Plan.	▪ DPT has appointed consultant M/s Detox Corporation Private Limited, Surat for "Preparing and Monitoring of Environmental Management Plan for Deendayal Port Trust at Kandla" in year 2016 for three years. Accordingly, M/s Detox Corporation Pvt. Ltd., Surat vide their letter dated 25/02/2016 submitted Environment Management & Monitoring Plan (EMMP) for Deendayal Port Trust and also completed the work. ▪ Deendayal Port Trust has already also endowed the specific duties to concerned departments / divisions for the proper implementation of EMMP and activities under Green Port initiatives at Deendayal Port Trust. ▪ In addition to above, M/s Detox Corporation Pvt. Ltd.,	▪ DPT has appointed to M/s Detox Corporation Pvt ltd, Surat for monitoring of EMMP from 2019 to 2022. ▪ M/s Detox Corporation Pvt. Ltd., Surat is regularly monitoring the Ambient Air Quality, Marine Water Quality, Drinking Water Quality, Noise Level, Metrological Monitoring and Sewage Treatment Plant monitoring at different locations of Kandla Port area.	▪ M/s Detox Corporation Pvt. Ltd., Surat is regularly monitoring the Ambient Air Quality, Marine Water Quality, Drinking Water Quality, Noise Level, Metrological Monitoring and Sewage Treatment Plant monitoring at different locations of Kandla Port area.

Sl. No.	Name of Green Port initiative	Year-wise progress		
		2018-19	2019-20	2020-21
		Surat is regularly monitoring the Ambient Air Quality, Marine Water Quality, Drinking Water Quality, Noise Level, Metrological Monitoring and Sewage Treatment Plant monitoring at different locations of Kandla Port area.		
2	For acquiring equipment required for monitoring environmental pollution	▪ M/s Detox Corporation Private Limited, Surat has already setup the instrument/equipment for monitoring of Ambient Air Quality, Marine Water Quality, Drinking Water Quality, Noise Level, Metrological Monitoring and Sewage Treatment Plant monitoring at different locations of Deendayal Port Trust.	▪ DPT is continuous monitoring Ambient Air Quality, Marine Water Quality, Drinking Water Quality, Noise Level, Metrological Monitoring and Sewage Treatment Plant monitoring at different locations of Deendayal Port Trust by M/s. Detox Co. Pvt. Ltd.	▪ DPT is continuous monitoring Ambient Air Quality, Marine Water Quality, Drinking Water Quality, Noise Level, Metrological Monitoring and Sewage Treatment Plant monitoring at different locations of Deendayal Port Trust by M/s. Detox Co. Pvt. Ltd. ▪ DPT is also issued NIT on 24.02.2021 to install two Continuous Ambient Air Monitoring Systems (CAAQMS) at Two Locations of Kandla Port Area. Further, two bidders participated and received bids are under technical scrutiny.
3	For acquiring dust suppression system	▪ The Howe Engineering Pvt. Ltd., Mumbai (Consultant) has	-	-

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		2018-19	2019-20	2020-21
		been appointed for Dust Suppression System by DPT. ▪ DPT completed the work of Sprinkling system inside Cargo Jetty Area for Coal Dust suppression in Coal Yard.		
4	For setting up of Sewage / Waste water treatment plants / Garbage Disposal Plant.	<u>Sewage / Waste water Plant</u> ▪ Deendayal Port Trust has Sewage Treatment Plant at Kandla and Gopalpuri Port colony with capacity of 3.3 MLD and 1 MLD respectively. ▪ Further, Deendayal Port Trust has already set up of new Sewage Treatment plant with capacity of 1.5MLD at Kandla as Existing Sewage Treatment plant is running old. ▪ DPT proposed Sewage Treatment plant with capacity of 0.8MLD at Gopalpuri. <u>Garbage Disposal Plant</u> ▪ Disposal of solid waste (i.e Scrap, garbage, etc. from ship) has been made by Kandla Port Trust through authorized agencies of Central Pollution Control Board / Gujarat Pollution Control Board as per Municipal Solid wastes (Management and Handling) Rules, 2000.	▪ Solid waste collection from the DPT colony area has been attended regularly and disposed off at area identify by Gandhidham Municipality	▪ Solid waste collection from the DPT colony area has been attended regularly and disposed off at area identify by Gandhidham Municipality

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		▪ Annual maintenance contract for garbage cleaning, road cleaning and all building cleaning awarded. ▪ DPT has also provided 55 Dustbin (Size - 4m3) in the port area and same has been disposed off in identified low lying area at Kandla Port Trust. Solid waste collection from the DPT colony area has been attended regularly and disposed off at area identify by Gandhidham Municipality.		
5	For Plantation	-	▪ The MoU has been executed between DPT and Forest Department for 35200 plantation and Maintenance over 31.94 Ha. DPT land at New Kandla and greening of Gandhidham Upto FY-2021. Work in progress.	▪ The MoU has also been executed between DPT and Rotary Club, Gandhidham for greening of Gandhidham, Near DC-5, Green belt area. Work in progress.
6	Green Port	-	▪ DPT has appointed M/s Gujarat Environment Management Institute (GEMI), Gandhinagar as an Advisor to make Deendayal Port a Green Port on 29.06.2019	▪ M/s. GEMI, Gandhinagar submitted Final report as per scope of work and deliverables mentioned in the work order and same is under appraised by DPT.
7	Wind Farm of 6.0 MW(3*2MW) WTG's	Energy used for Captive consumption at Kandla	--	

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		2018-19	2019-20	2020-21
				--
8	Wind Farm of 14.7 MW (7*2.1MW) WTG's	Installed	Commissioned (1*2.1MW used for Captive consumption of DPT at AO Building, Gopalpuri & Vadinar & 6*2.1MW is used for third party sale under MTOA)	--
9	37KWp Rooftop Solar Plant at VTS Tower, Kandla	37KWp Rooftop Solar Plant installed and Commissioned at VTS Tower, Kandla	--	--
10	Hybrid Energy Park	--	--	Feasibility study for setting up of Hybrid Energy Park (Solar + Wind) at Kandla is initiated
Jawaharlal Nehru Port				
1.	**Environmental Monitoring-** As part of Environmental Management and Monitoring Plan the ambient air, marine water, marine ecology, drinking water, sewage quality, noise level is monitored through IIT Madras.	Work was awarded to IIT Madras, they have started Environmental monitoring at JNPT.	IIT Madras is Monitoring Environmental Parameters at JNPT.	IIT Madras is Monitoring Environmental Parameters at JNPT.
	Continuous Ambient Air Quality Monitoring Station (CAAQMS)	-	IIT Madras has setup CAAQMS facility at Port Operation Centre.	CAAQMS was inaugurated on 1st January 2021 and Air Quality data displayed to the public through large screen at Port Operation Centre.
2.	**Setting up of sewage treatment plant / garbage disposal plant**			
	10 MT/Day Solid Waste Management Facility (SWM)	-	Work was awarded, Contactor has Setup SWM Facility as per SWM Rule	SWM facility was commissioned in the month of February 2021 as per SWM

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			2016.	rule 2016 for port users, Port Township and villages within port estate.
	Solid Waste Management awareness training sessions conducted for JN Port Employees, Schools, Township Residents, Central Industrial Security Force, JN Port Cleaning Workers, and Truck Drivers etc.	-	SWM Awareness training sessions was conducted.	SWM Awareness training sessions was conducted.
	All ships bound for JNPT are registering in Swach Sagar Portal and Port Reception Facility are being provided as requested. Reception facilities for MARPOL annex - 1, 2, 5 & 6 are provided to vessels calling JNPT.	-	-	All vessels calling JN Port are complying with the requirement.
	Setting up of Sewage Treatment Plant	4 MLD STP commissioned at JNPT Township.	STP facility is in operation.	STP facility is in operation.
	E-Toilets	-	E-Toilets installed in Wharf area with self-digestive system.	E-Toilets facility is in operation.
3	**Plantation:** Annually 5000 Tree Plantation in port estate in last 3 years.	34% of the port area is under green cover including mangroves Port, 5000 Tree Plantation in port estate.	34% of the port area is under green cover including mangroves Port, 5000 Tree Plantation in port estate.	34% of the port area is under green cover including mangroves Port, 5000 Tree Plantation in port estate.
4	Setting up projects for energy generation for renewable energy sources- Roof Top Solar System- • The installed capacity of solar power system at JNPT. • Installation of 0.8 MWp solar	2.0 MWp in operation.	2.0 MWp in operation.	2.3 MWp in operation.

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	power plant is in progress. • Solar power Generation	-- 22,22,827 KWH	-- 22,14,237 KWH	0.8 MWp in progress expected to be in operation in September 2021 21,39,714 KWH
5	Sustainability Reporting	-	Work was awarded to M/s. TERI	The Port first Sustainability Report is ready as per Global Reporting Initiative (GRI) reporting standards.
6.	**LEDs lamps replaced in port area and township**			
	Public Building 40 W to 20 W balance 1525 LED lamp replacement work for inside port area, administration building is completed through Electronics Corporation of India Limited (ECIL).	-	LED Tube lights commissioned and are operational	LED Tube lights are operational
	Inside port area 108 nos., 1000 Watt HPSV lights fittings replaced with 72 nos. 300 Watt LED fittings on 6 high mast.	LED floodlights commissioned and are operational.	LED floodlights are operational.	LED floodlights are operational.
	Procurement of 400 nos. 380 watts LED fittings for replacement of similar HPSV of 1000 Watt fitting on High masts is in process.	-	-	Expected completion by December 2021.
	Multipurpose hall conventional lights with LED lamp replacement work is completed through M/s. EECL. Tennis Court and	-	LED lamp commissioned and are operational.	LED lamp are operational.

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	Badminton Court LED lamp replacement work 100% completed in December 2019.			
	68 Watts /hrs capacity 1350 Nos. ceiling fans replaced with 28 Watts/hrs capacity BLDC fans, resulting saving energy of 2,35,600 KWH per year.	-	550 Nos of BLDC fans commissioned and are operational	800 Nos of BLDC fans commissioned and 1350 nos BLDC fans are operational
	Total 3,979 nos. LEDs lamps replaced in the port Estate, from this 7,12,058 kwh energy saving per annum.	LED lamps commissioned and operational.	LED lamps are operational.	LED lamps are operational.
	Conventional 40 Watt tube light is replaced with 20 Watt LED tube light fixture at JNPT Township public buildings – 3245 Nos Changed resulted Total energy savings per year 511672 KWH.	LED Tube lights commissioned and operational.	LED Tube lights are operational.	LED Tube lights are operational.
	80 Watt HPSV to 30 Watt LED: Height of pole 3 M- 442 replaced. Total energy saving per year 116158 KWH.	LED street lights commissioned and operational.	LED street lights are operational.	LED street lights are operational.
	150 Watt HPSV to 90 Watt LED: Height of pole 7 - 9 M- 126 replaced. Total energy saving per year 39600 KWH	LED street lights commissioned and operational.	LED street lights are operational.	LED street lights are operational.
	Inside & Outside port area: 150 Watt HPSV and 250 Watts HPSV to 120 Watt LED: Height of pole 9 M- 166 Nos. replaced. Total energy saving 44628 KWH.	LED street lights commissioned and operational.	LED street lights are operational.	LED street lights are operational
	Installation of LED floodlights in	-	LED floodlights	LED floodlights are

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	place of HPIT lamps.- 205 Nos replaced.		commissioned and operational.	operational.
7.	Air Conditioners- Conventional Air Conditioners were replaced with Energy efficient VRF System/5 Star Split Invertor Air Conditioners of 40 Ton Capacity at Container Terminal shift office and rest rooms.	VRF System/5 Star Split Invertor Air Conditioner commissioned and are operational.	VRF System/5 Star Split Invertor Air Conditioner are operational.	VRF System/5 Star Split Invertor Air Conditioner are operational.
	Conventional Air Conditioners were replaced with Energy efficient VRF System/5 Star Split Invertor Air Conditioners of 258.4 Ton Capacity at APEC Training centrebuilding and 53.7 Ton Capacity at JNPT-APEC Guest house and JNPT's Guest house no. 1 Dining hall.	-	Energy efficient VRF System/5 Star Split Invertor Air Conditioner commissioned and are operational.	Energy efficient VRF System/5 Star Split Invertor Air Conditioner are operational.
	Replacement of conventional Air conditioners with 800 Ton capacity VRF System/5 Star Split Invertor Air Conditioners in the Administration building of JNPT.	-	-	Expected completion by December 2021.
8	Electric Cart	-	The port has purchased an electric cart for transportation of men and material within the port premises.	Electric Cart facility is in operation.
9	Replacement of 600 HP diesel engines with the 450 HP engines on existing RTGC- Prime Mover Diesel Engines of 07 Nos. old RTGCs have been	-	450 HP Engines are commissioned and in operation.	450 HP Engines are in operation.

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	repowered with 450 HP Engines, which is resulting in savings of around Rs.65.52 lakhs per year on account of fuel cost, in addition to reduction in carbon footprint.			
10	Setting up of solar power plant in the lagoons behind berths in JNP Container Terminal- JNPT has appointed a Consultant, M/s. The Energy and Resources Institute (M/s. TERI), New Delhi for Providing Consultancy services for setting up of a floating solar power plant. The Consultant has submitted Feasibility Report, DPR and draft tender for appointment of EPC contractor and is under review by the Port.	-	Bathymetry survey of lagoon area carried out.	DPR is under review.
11	ERTGC- JNPCT has acquired new electrically operated RTGCs (15 Nos.). With the induction of these E-RTGCs, there will be reduction in the consumption of high speed diesel as the conventional RTGCs consuming around 15-20 liters of diesel per hour. NSIGT has acquired 16 nos of electrically operated RTGCs	All E-RTGCs are operational.	All E-RTGCs are operational.	All E-RTGCs are operational.
12	Oil Spill response (OSR) facilities • Local Oil Spill Contingency Plan for JN Port is updated in line with NOSDCP-2015 guidelines	-	Vetting from Coast Guard is awaited.	Vetting from Coast Guard is awaited.

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	and forwarded to Indian Coast Guard for vetting. • Common Oil Spill Response Tier-I facility (spillage up to 700 MT) around MBPT and JNPT harbour operational. • A Multi- Purpose Utility Launch (MPUL) has been hired to combat minor oil spill, collecting floating debris and other similar purposes. Terminal and tugs are having facilities of oil spill dispersant (OSD) to combat small oil spillage. • All hired tugs of JNPT are equipped with Oil Spill Spraying Booms on board.	Operational Operational All tugs Oil Spill Spraying Booms are operational. Mock drills are conducted weekly.	Operational Operational All tugs Oil Spill Spraying Booms are operational. Mock drills are conducted weekly.	Operational Operational All tugs Oil Spill Spraying Booms are operational. Mock drills are conducted weekly.
13.	Shore Power supply Shore power supply provided to tugs and port crafts. Electrical load per Tug is around 50 KVA. Total 08 Tugs are supplied with shore power during its stay at berth. Due to this about 2000 Lit Diesel/Day saving.	Facility is in operation.	Facility is in operation.	Facility is in operation.
	Additional facility of shore power supply for Tugs and Port crafts is being created at Coastal berth.	-	-	Expected to be completed by September 2021.
	Tender has been floated for	-	-	The Consultant is expected to

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		2018-19	2019-20	2020-21
	appointment of Consultant for carrying out feasibility study for making provision of Shore Power Supply to all visiting ships at JNPT.			be appointed by December 2021.
V.O. Chidambaranar Port				
1.	Installation for 140 KW roof top solar power plant through TEDA	--	--	Physical progress-25% Financial progress-80%
2.	Installation of 5 MW ground based solar power plant through M/s SECI	--	--	Physical progress-10% Financial progress-Nil
3.	Development of one no. of truck mounted high pressure water mist fog machine	Commissioned on 11.09.2018 Physical progress 100% Financial progress-100%	--	--
4.	Installation of continuous Ambient Air Quality Monitoring system to monitor pollutant levels	Commissioned on 11.09.2018 Physical progress 100% Financial progress-100%	--	--
5.	Installation of 500 KVA capacity shore Power supply system for vessels.	Commissioned on 13.09.2018 Physical progress 100% Financial progress-100%	--	--
6.	Techno economic feasibility study for Wind energy potential at VOCPT to set up wind farm for captive power consumption to supplement entire Port's energy demand through RE resources.	--	DPR prepared by National Institute of Wind Energy (NIWE); Steps being taken for availing PMC Services of NIWE for installation of ~2.8MW Wind Farm.	
Visakhapatnam Port				
1	Solar	580 KW Roof top Solar panels commissioned at Sports Complex.	1000 Nos. LED lamps as Part of conservation of energy.	--
2	Plantation	1,15,000 (1,00,000 shelter plantation and 15,500 VPT areas	1,00,000 shelter belt plantation	1,02,000 at VPT area plantation.

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		Plantation)		
Mumbai Port				
1.	Reception facility for Waste Oil/Sludge/Slops generating from Ships	2800 MT/Annum sent to SPCB Authorized Recyclers	2324 MT/Annum sent to SPCB Authorized Recyclers	1729.67 MT/Annum sent to SPCB Authorized Recyclers
2.	Oil Spill Response Facility	MbPT, JNPT along with BPCL, HPCL, IOC and other oil companies have established Tier –I facility at Jawahar Dweep for Port of Mumbai & JNPT. This is preparedness for Oil Spill. Disaster Management Plan (DMP) is also In-place. - Ongoing Activity	MbPT, JNPT along with BPCL, HPCL, IOC and other oil companies have established Tier –I facility at Jawahar Dweep for Port of Mumbai & JNPT. This is preparedness for Oil Spill. Disaster Management Plan (DMP) is also In-place. Ongoing Activity	MbPT, JNPT along with BPCL, HPCL, IOC and other oil companies have established Tier –I facility at Jawahar Dweep for Port of Mumbai & JNPT. This is preparedness for Oil Spill. Disaster Management Plan (DMP) is also In-place. - Ongoing Activity
3.	Electronic Waste given to Authorized Recyclers	9.654.MT/Annum	8.930 MT/Annum	4.570 MT/Annum
4.	Installation of Roof top Solar PV System	Roof top with combined capacity of 401kWp installed on CAPEX model.	Pre-Feasibility for installation of Solar roof top carried out on other structures / buildings.	LOI issued for installation of 1Mwp of Solar roof top under RESCO model. PPA signed. Expected date of commissioning by 31.08.2021.
5.	Implementation of Shore Power Supply at International Cruise Terminal of capacity 10 MVA.	-	-	Budgetary offers invited.
6.	Shore Power supply to port operated vessels	-	80 % completed	90% completed
7.	Use of Electric Vehicles for Oil Pipeline Division.		6 nos. of electric cart have been procured and put into use.	Procurement of 5 nos. of Electric Vehicles is in the process.
8.	LED lighting in Port and office	10 % completed	40 % completed	90 % completed

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	premises			
Chennai Port				
1	Acquiring equipments required for monitoring environmental pollution			
(a)	Name of work: Pollution control measures at Jawahar Dock & Bharathi Dock - Provision of online monitoring system Continuous Ambient Air Quality (AAQ) monitoring stations are installed at 3 locations.	One year warranty period completed on 16.10.2018 and Under AMC up to October 2023.	Annual maintenance work is in progress up to October 2023	Annual maintenance work is in progress up to October 2023
(b)	Physical monitoring and testing of environmental Parameters (ambient air quality, potable & marine water quality and noise levels) are being carried out periodically.	Value of work Executed in the FY2018-19 Rs.7.29 lakhs	Value of work Executed in the FY2019- 20 Rs.18.53 lakhs	Value of work Executed in the FY 2020-21 Rs.24.34 lakhs
2	For acquiring dust suppression system			
(a)	Procurement of one no of Truck Mounted Sweeping Machine.	work order placed on 23.03.18 for the value of Rs.44.60lakhs. Procured on10.7.2018	Put in use.	Put in use.
(b)	Procurement of one no of Fog Cannon Machine.	work order placed on 13.06.2018 for the value of Rs.48.85 lakhs. Procured on 28.09.2018	Put in use.	Put in use.
(c)	Providing retaining wall on the western side of M. Yard	--	Work completed at a cost of Rs.121.86 lakhs	--
(d)	Supplying, stitching and tying green house net barrier wind screen for 1st 3 units at eastern side of FF road(Repairing wind screen) Work was completed on 31/07/2017.	Work completed on 31.07.2017	--	--
3	For setting up of sewage/waste			

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	water treatment plants / garbage disposal plant			
(a)	Feasibility Study	--	--	The consultant submitted the Feasibility report. Invitation of tender under Progress.
(b)	Providing storm water drains arrangement at Marshalling Yard	Work awarded on 4.7.2018 for a value of Rs. 280.70lakhs. Expenditure incurred up to March 2018 Rs.67.61lakhs.	Work completed and value of work RS.232 lakhs	--
4	For plantation of Trees/Saplings			
	Plantation in open areas, avenues and corners	work completed for a value of Rs.26.02 Lakhs	work completed for a value of Rs.22.13 lakhs	Work completed for a value of 10.31lakhs
5	For setting up projects for energy generation from renewable energy sources			
	Installation of 100 KW and 400 KW Roof Top Solar Power Plant (Old Admin. Building, Hospital Annex Blg, Passenger Terminal, Anchor Gate Bldg, Old Diabetic Centre Bldg.). Around 6.5 lakhs units are being generated per year. The conventional light fittings are replaced by energy efficient LED light fittings in a phased manner thereby saving 9.5 lakhs units per year.	----	----	----
Syama Prasad Mookerjee Port (Kolkata Dock System)				

Sl. No.	Name of Green Port initiative	Year-wise progress		
		2018-19	2019-20	2020-21
1	Preparation of EMMP of Green Plan.	Report prepared	-	-
2	Installation of Dust Barrier	-	Tender in finalization stage	Work regarding Installation of Dust Barrier is in progress
3	Acquiring equipments required for monitoring environmental pollution	Monitoring of dock water by West Bengal Pollution Control directly	Work Order placed to approve laboratory of West Bengal Pollution Control Board for monitoring Air, Noise Water Quality.	Periodical monitoring of Air, Noise Water Quality by approved laboratory of West Bengal Pollution Control Board is in progress
4	Acquiring dust suppression system	Water sprinkling is being done at Dock Zones.	Water sprinkling is being done at Dock Zones.	Water sprinkling is being done at Dock Zones. Deployment of mobile dust swiping & suction machine is at the final stage.
5	For setting up Sewage/waste water treatment plants/garbage disposal plan.	-	-	Installed one of Bio-compost plant for converting biodegradable waste to bio-manure.
6	Plantation	2018: Area - 600 sq m	2019:Area - 7500 sq m	2020 : Area - 2000 sq m
7	Setting up projects for energy generation from renewable sources	Grid-connected roof-mounted solar photovoltaic panel of capacity 160 KWP has been installed	-	-
8	Completion of Shortfalls of Oil Spill Response facilities Tier-I	Marine procured all the equipment as per the earlier NOSDCP Circular	--	SMPK is in the process of procuring a few shortfall equipments as per the new guidelines issued by Coast Guard in 19th December 2018. Tender for the said purpose has been floated in June,2021.

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Syama Prasad Mookerjee Port (Haldia Dock Complex)				
1	Installation of Wind Screen / Dust Barrier	-	-	Proposal has been sanctioned for construction of wind screen of 1.5 km.
2	Acquiring equipments required for monitoring environmental pollution	Quarterly environmental monitoring is being executed by MoEF & CC and NABL accredited laboratories.	Quarterly environmental monitoring is being executed by MoEF & CC and NABL accredited laboratories.	Quarterly environmental monitoring is being executed by MoEF & CC and NABL accredited laboratories.
3	Acquiring Dust Suppression System	Water sprinkling is regularly carried out through water tanker at dock area.	Water sprinkling is regularly carried out through water tanker at dock area.	Water sprinkling is regularly carried out through water tanker at dock area. One fog canon machine has been procured for water spraying, which under operation.
4	For setting up Sewage / waste water treatment plants / garbage disposal plan.	Sewage treatment plant with 6 nos of oxidation ponds are operational. Haldia Municipal Corporation regularly collects garbage from HDC for safe disposal.	Sewage treatment plant with 6 nos of oxidation ponds are operational. Haldia Municipal Corporation regularly collects garbage from HDC for safe disposal.	Sewage treatment plant with 6 nos of oxidation ponds are operational. Installation of 4.0 MlD STP with MBBR Technology is in proposal stage. Haldia Municipal Corporation regularly collects garbage from HDC for safe disposal.
5	Manual Road Sweeping and Waste Cargo Cleaning	Ongoing Process	Ongoing Process	Ongoing Process
6	Uses of Tarpaulin Cover on Stacks and Cargo Loaded Vehicles	Ongoing Process	Ongoing Process	Ongoing Process

Sl. No.	Name of Green Port initiative	Year-wise progress		
		2018-19	2019-20	2020-21
7	Plantation	1400 nos	5000 nos	2174 nos
8	Setting up projects for energy generation from renewable sources	--	--	Work is in progress for installation of 1 MW solar generation plant.
9	Completion of Shortfalls of Oil Spill Response Facilities	--	--	Tier-I Oil Spill Response Equipment have been procured.
Paradip Port				
1	1. Roof top solar project 2. Road sweeping machine 3. Plantation 4. Sewage treatment plants 5. Dry fog system	Dry Fog System in Mechanical Coal handling Plant & Rail Wagon Unloading Area is in operation. 2 Nos. of Sewage Treatment Plants of capacity 2 MLD & 2.5 MLD are in operation. Effluent treatment Plant at PPT Hospital is in Operation.	One more Mechanical Road sweeping machine has been procured and in operation. Construction of concrete road covering the Port entry /exit points and main routes for truck transportation to reduce road spillage, has been completed. Presently Roof-Top Solar power Plant has been installed on two nos. of Paradip Port Trust Building (Namely Administrative Building & Port Trust Hospital) for a total capacity generation of 265 Kwp under RESCO Model. Also, all earlier lights in Official building and street lights have been replaced by LED Lights.	Plantations of 1 Lakh Plants through M/S. OFDC has been completed.

Annexure-II

Reply to Point (c)

Port Name	Status
New Managalore Port	Port is having shore power supply provision at the diaphragm wall between berth no. 11 & 12 for 4 nos. of coast guard ships and 4 nos. of hired tugs. Further, shore power supply provision is also there between berth no. 4 & 5 for port tugs. In addition to the above, shore power supply provision has been made at berth no. 1 & 2 in February 2020.
Kamarajar Port	Detailed project report for setting up of Shore Power Supply facility has been prepared during the Year 2020-21. The consultant recommended to setup Shore Power supply facility at coal berth 1,2 after ensuring the modification in the bulk carrier vessel to receive shore power supply calling at coal berth 1&2 at an estimated cost of Rs. 2129lakhs. Tender will be invited after obtaining consent from vessel Owners/ Charters
Mormugao Port	Shore Power Supply of 400KVA each has been commissioned at Mormugao Port Trust at Breakwater & Mole berth on 21.11.2018 and at Figure Jetties No. 2 and 3 on 22.04.2021 respectively.
Cochin Port	Total installed capacity of Shore Power at 10 berths in Cochin Port Trust is 6,000 Amps.
Deendayal Port	At Jetties of DPT, the tugs are being powered by "shore to ship technology" for providing electrical power the anchored tugs when they are stationed alongside jetty.
Jawaharlal Nehru Port	Shore power supply is being provided to all the port crafts and flotilla for the last 10 years in JNPT. The average carbon footprint on this account is about 1986 tones. Also, Tender has been floated for appointment of Consultant for carrying out feasibility study for making provision of Shore Power Supply to all visiting ships at JNPT. The Consultant is expected to be appointed by December 2021.
V.O. Chidambaranar Port	VOCPT installed 500 KVA capacity shore power supply system to provide Shore power supply for vessels at berths Capacity : 500KVA ➢ Output Frequency : 60Hz ➢ Maximum Output Voltage : 440V ➢ Maximum Output Current : 400A ➢ Phase : 3 phase

	➢ 2 Sets of socket (CAVOTEC make – European) with Plug to connect with Ships. Ships at berth can avail the shore power supply and switch off the Harbour Generator so as to reduce pollution inside Port
Visakhapatnam Port	VPT has provided Shore Power supply facility to the vessels at the EQ-7 berth in the inner harbour and also providing shore power to harbour crafts. Electrification of Railway lines is taken up by VPT in a phased manner. Railway lines of the two Mechanized coal handling terminals (VGCB&VSPL)are completed and electrification of HPCL terminal is also completed (total 52 Kms completed (VPT and others)
Mumbai Port	Facility for Shore power to be used by the port operated vessels has been made. Some more facility will be made within 2 months. Budgetary offer has been asked from prospective bidders after feasibility study to install one 10 MVA capacity shore power facility for the International Cruise Terminal.
Chennai Port	Shore power at a capacity of 1000 KVA is being extended to Navy ships at Chokkani Jetty and power consumption per year is 19 lakhs units.
Syama Prasad Mookerjee Port	In KDS, there is provision for shore power supply for port-owned vessels but for commercial vessels, shore power or cold ironing is under process of examination with various stakeholders. At HDC, Shore power already restored round the clock for tug jetty.
Paradip Port	Shore Power Supply at 3 Phase, 415V, 50HZ is being provided to Coast Guard Vessels, floating crafts, tugs & plot launches.

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