

Presentation on Jawaharlal Nehru Port Trust Comprehensive Landuse Plan



Agenda for today's discussion



1 Project context

2 Existing land use

3 Proposed land use

Context of the project

- Worldwide ports use available lands to establish industries for increasing captive cargo to achieve sustainability. For example Rotterdam, Antwerp, Hamburg, Sohar etc
- In general, port related activities are first priority and the industries and activities which are incidental to the port activities are given second priority.
- Prior planning is required to achieve optimisation between the utilization of land for both port related activities and supporting industries to achieve maximization of revenue and sustainability of operations
- Central government has from time to time issued guidelines and policies for major ports which are aimed achieving this optimisation of land utilization.

Context of the project

- JNPT has enough land to accommodate CFS and other logistics based units
- All most all the CFS except for one CFS has been established in the neighbourhood of JNPT
- Some of the reasons
 - CIDCO allocates land on nomination basis
 - CIDCO can award lands for a lease period of more than 30 years
 - Lease rent of CIDCO is lesser than JNPT lease rate which is decided by TAMP.
 - Delays in getting permissions from ministry
 - Frequent changes in land use policies
- Opportunities for JNPT
 - The "Central Port Authority act 2016" which is likely to be passed this year will give JN port freedom in making the lease rates of port lands more competitive.
 - The new initiative "Sagarmala" by the central government is expected to bring the focus on the ports as the growth engines and drivers of economic activity in the coastal region.
 - The new GST regime is likely to shift large retail warehouses to hub locations.
 - Increase in land rates in the Navi Mumbai
 - Proposed DFC connectivity to JNPT

Context of the project

- Policy Requirements
 - central guidelines of 2004 has stated that every port should have comprehensive land use plan in place and the same should be conveyed to the ministry. There is no mention of frequency of the updating of land use plan in the guidelines.
 - JNPT has prepared a comprehensive land use plan in 2006.
 - The guidelines of 2014 reiterates the need of having a comprehensive land use plan in place and states that the land use plan should be updated every 5 years.
- The combination of factors like increase in competition, need to leverage the opportunities and policy requirements necessitate a comprehensive land use policy for optimal usage of available land recourses

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JNPT Existing Landuse

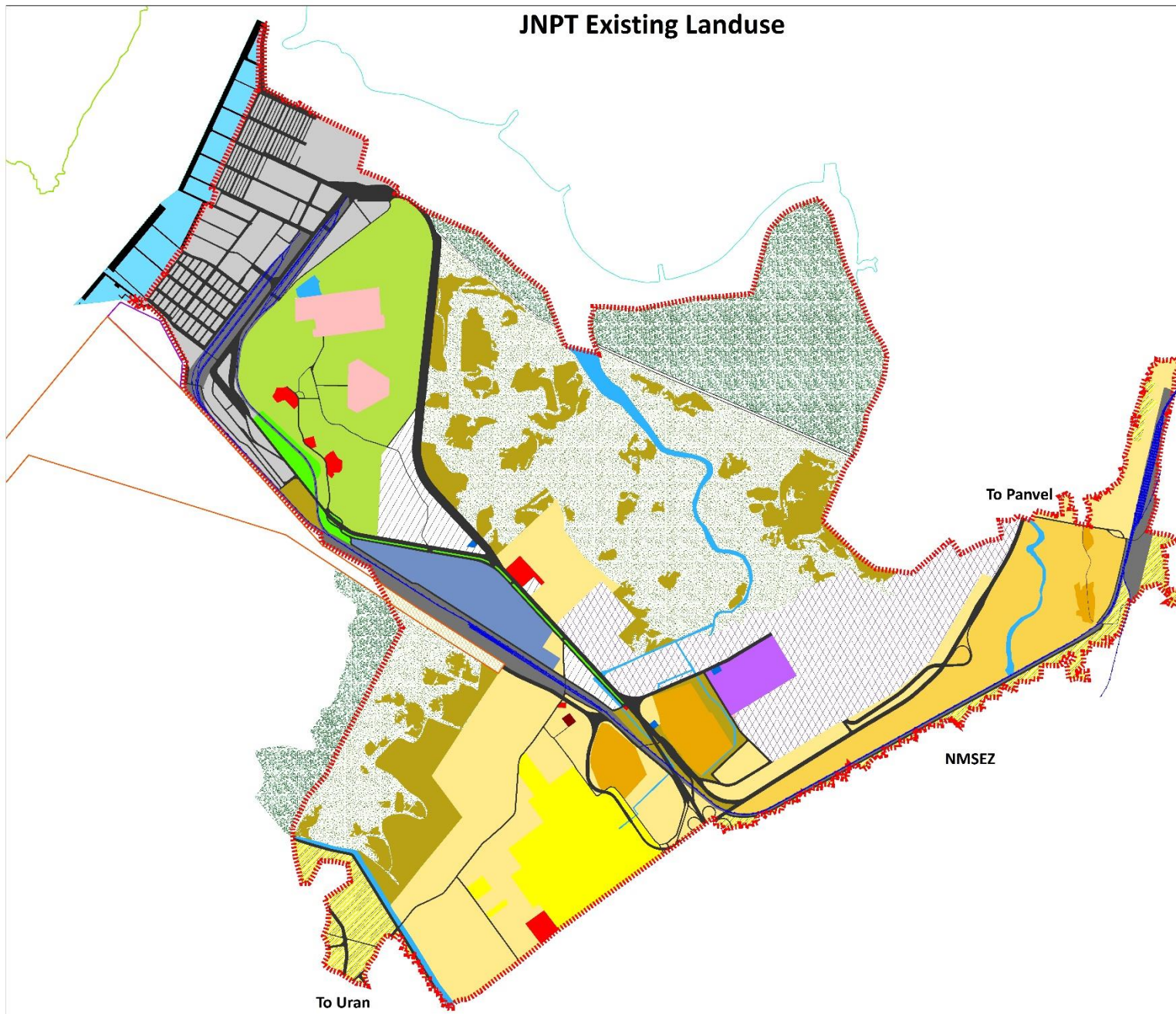
Comprehensive Landuse Plan for JN Port

Key Map



Legend

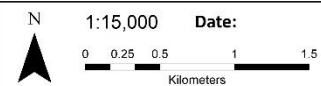
Existing	Boundary
4th Terminal	JNPT Boundary
Area Occupied by Others	4th Terminal
Bund	Coastal Terminal
CFS	Elephanta Island
Commercial	Railtrack
Dense Mangrove	Harbour
Filled Vacant	Exclusion
Green Zone	Jetty
Open Space	Others Land
PSP	Village
Parking	Waterfront
Port	
Public Utility	
R&R	
Railway	
Residential	
Roads	
SEZ	
Sparse Mangrove	
Tank Farm	
Unfilled Vacant	
Water Body	



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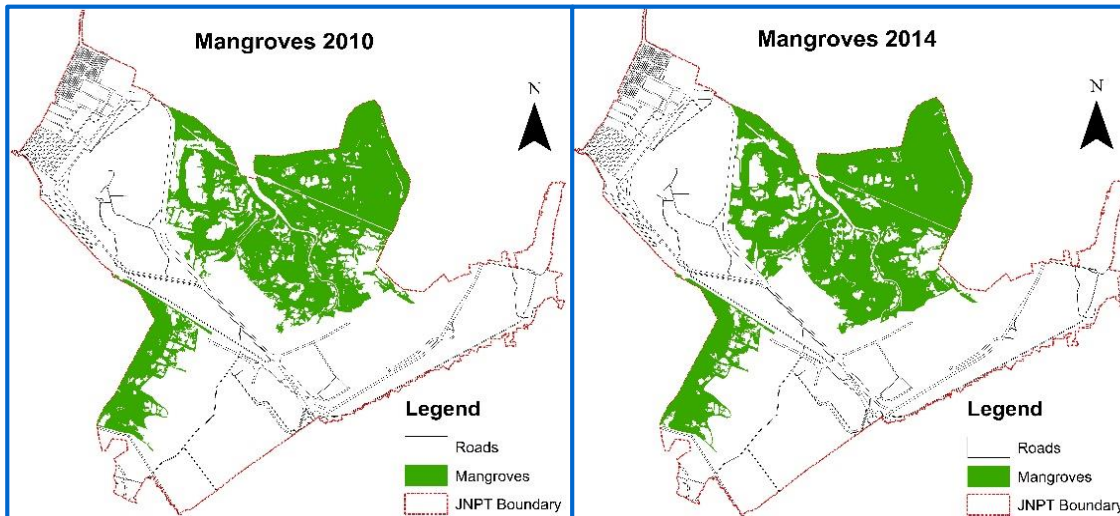
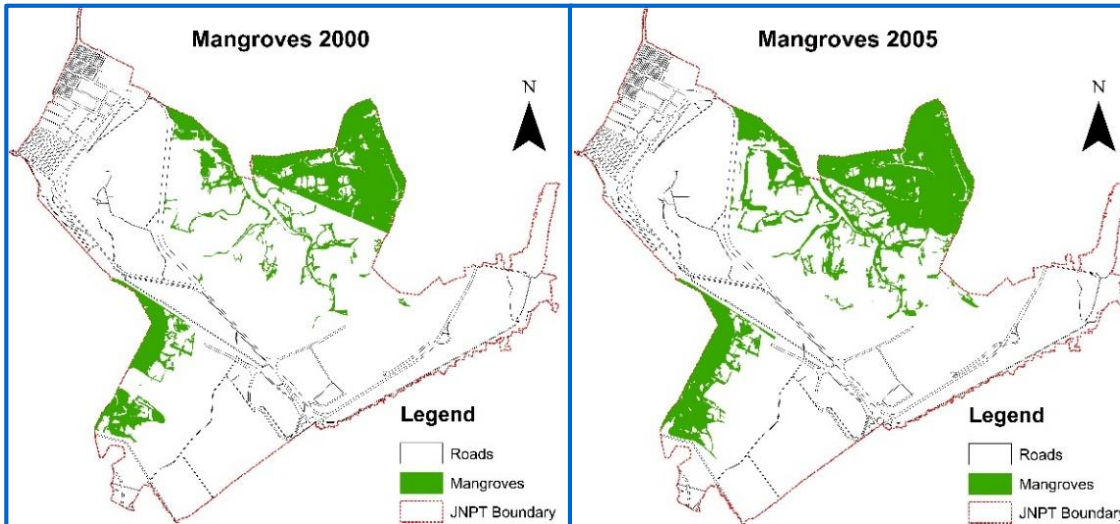
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Existing Landuse Statement

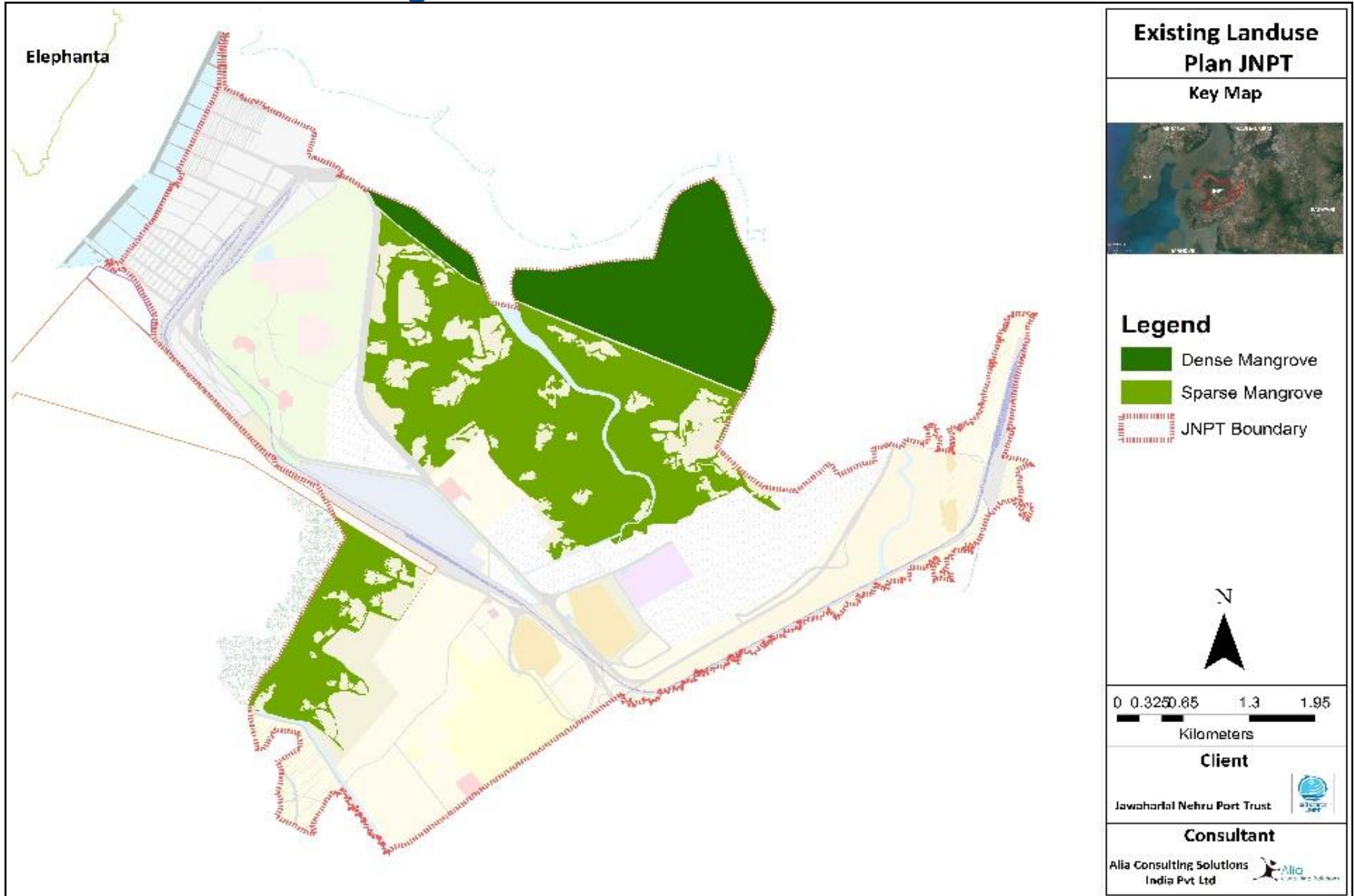
Landuse	Area	%
Dense Mangrove	295.70	8.82%
Sparse Mangrove	617.90	18.43%
Bund	7.09	0.21%
Filled Vacant	386.50	11.53%
CFS	27.33	0.82%
Parking	53.68	1.60%
PSP	14.11	0.42%
SEZ	270.50	8.07%
Area Occupied by Others	157.17	4.69%
Railway	123.70	3.69%
R&R	159.80	4.77%
Unfilled Vacant	285.20	8.51%
Residential	111.00	3.31%
Public Utility	0.78	0.02%
Open Space	17.29	0.52%
Tank Farm	60.48	1.80%
Commercial	1.06	0.03%
Port	176.90	5.28%
Green Zone	233.30	6.96%
Roads	214.20	6.39%
4th Terminal	12.32	0.37%
Area under berthing	82.77	2.47%
Water Body	44.17	1.32%
Total	3353.95	100.00%

Existing Landuse – Spread of Mangroves



Year	Mangroves (ha)
2000	406
2001	424
2002	444
2003	457
2004	487
2005	532
2006	566
2007	577
2008	718
2009	748
2010	823
2011	854
2012	870
2013	879
2014	885

Present Status of Mangroves



- 913 hectares with Sparse Mangroves and Dense Mangroves

Reasons for growth of mangroves

1

In the year 2000 the total mangrove area within JNPT was around 406 hectares and the same grew to 885 hectares by 2014 due to a breach in the bund which was abutting the dense mangroves on the Nhava creek side

2

This breach in the bund caused sea water to come into previously dry areas and caused the mangroves to sustain in the previously developable land

JNPT Developable Lands

Comprehensive Landuse Plan for JN Port

Key Map



Legend

Developable areas

Boundary

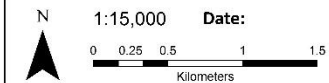
- JNPT Boundary
- 4th Terminal
- Coastal Terminal
- Elephanta Island
- Railtrack
- Harbour

Exclusion

- Jetty
- Others Land
- Village
- Waterfront

Landuse

- Filled Vacant
- Railway
- Roads
- Sparse Mangrove
- Unfiled Vacant
- Water Body



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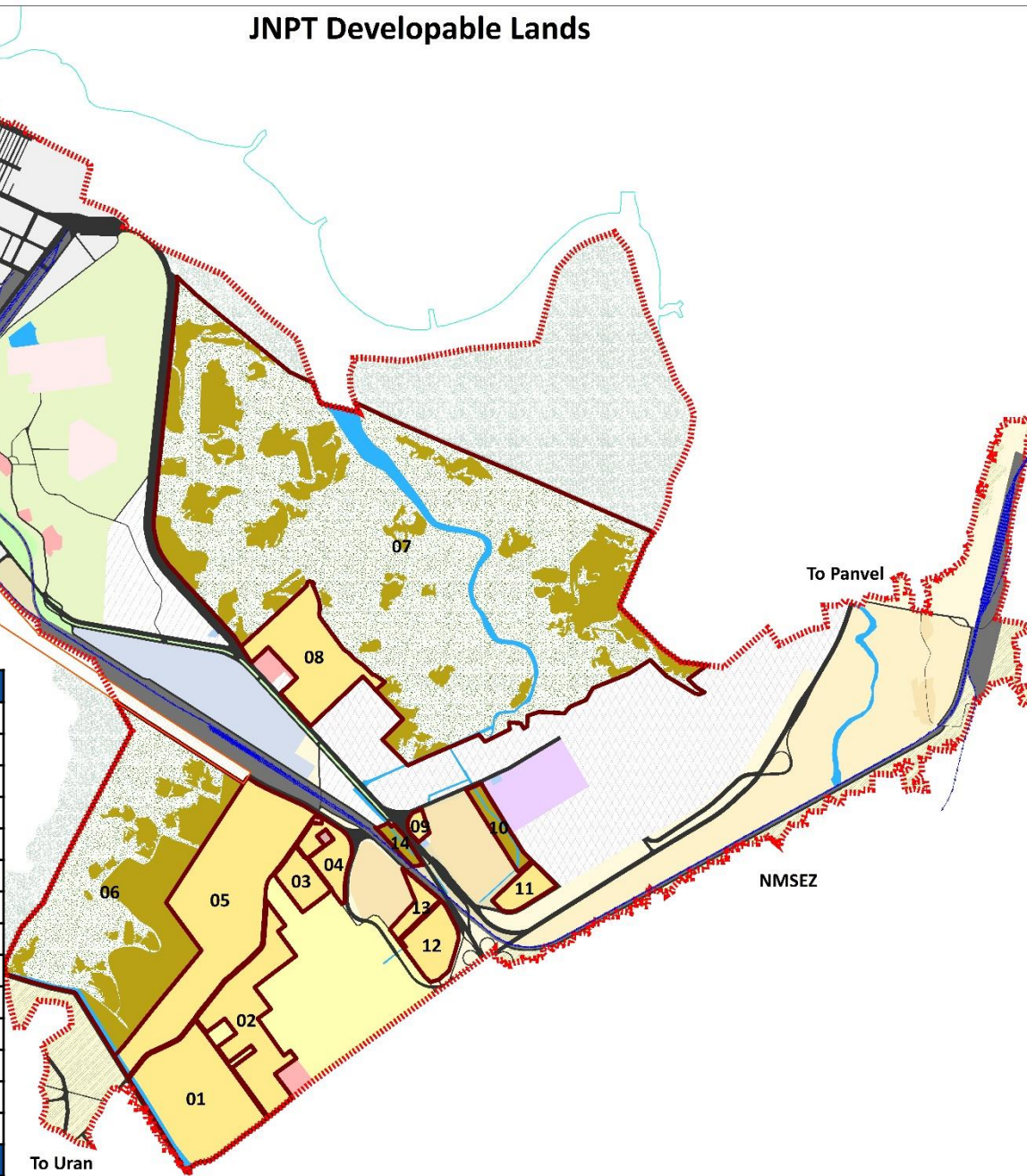


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Land Parcel	Area (ha)
01	61
02	44
03	10
04	13
05	106
06	213
07	671
08	44
09	3
10	8
11	9
12	16
13	7
14	4
Total	1209



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Proposed Land use

Zoning

- Total port area is divided into different zones for easy management of in a computerized land inventory management system, for ease in assigning lease/licensing rates and for ease in communication
 - Zone 1: Port Area
 - Zone 2: Green zone
 - Zone 3: Existing Oil storage
 - Zone 4A: Proposed industries
 - Zone 4B: Proposed industries and Eco Park
 - Zone 5: Special Economic Zone
 - Zone 6: Township area
 - Zone 7: Villages and Land allocated for R&R purpose
 - Zone 8: Mangroves

JNPT Proposed Zoning and Plotting

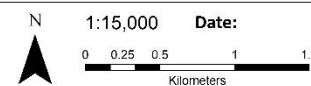
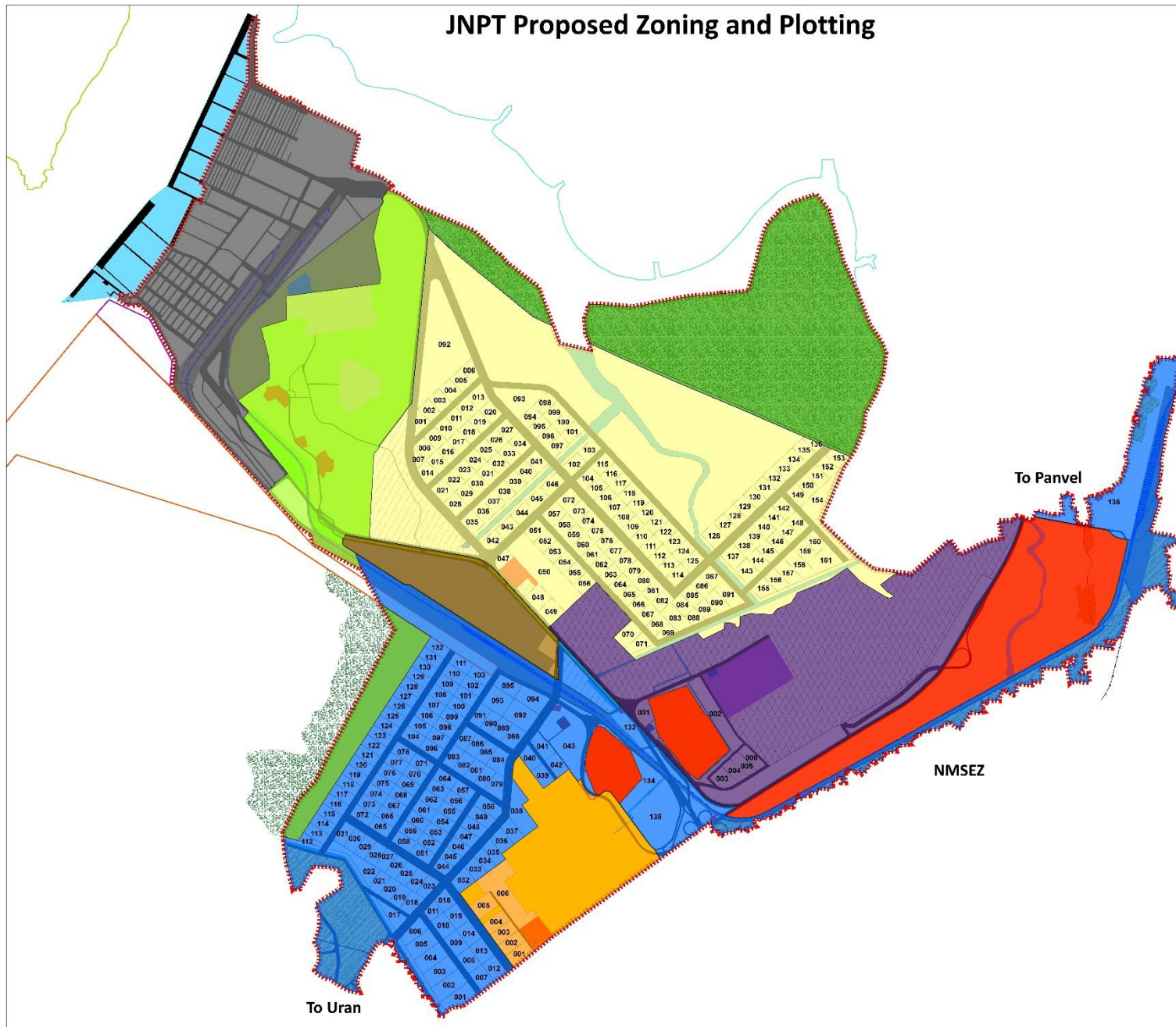
Comprehensive Landuse Plan for JN Port

Key Map



Legend

- Plots
- Boundaries**
 - JNPT Boundary
 - 4th Terminal
 - Coastal Terminal
 - Elephanta Island
 - Harbour
- Zone**
 - Zone 1
 - Zone 2
 - Zone 3A
 - Zone 4A
 - Zone 4B
 - Zone 5
 - Zone 6
 - Zone 7
 - Zone 8



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Activities proposed in zone 4A , zone 4B, 5 and 6

- 1 Establishing manufacturing industry in the available port lands can cause only limited increase in the container traffic and might become difficult to vacate after the end of lease period.
- 2 The activities proposed to be permitted as part of the land use plan are selected with the view that they cater to the requirements of being incidental to port operations and cater to the green port tag of JNPT. Warehousing and logistic industries suit these requirements.
- 3 It is proposed that the land and necessary infrastructure for leasing should be developed in three phases.

Cold storages and associated value adding facilities.

- As per agriculture ministry post harvest wastage of fruits and vegetables is around 25-30%
- India is the leading exporter of fruits and vegetables in the world
- Developing cold chain infrastructure is one of the governments major thrust area and availability of loans at 6% interest through NABARD.
- Cold storage is the intermediate and final requirement of a integrated cold chain and enables and enables producers to realize greater value and ensures supply throughout the year
- Two types of demand
 - Demand due to Exim operations at JNPT .
 - Mumbai metropolitan region consumption.
 - Pharmaceutical products are not considered as the exports are expected to fall in the coming years.
- Estimated demand is 37.5 hectares by 2022 and 22 hectares of land between 2022 and 2035

Retail warehousing

- 1 Third party logistic services and distribution centers
- 2 GST regime will remove need to establish warehouses in different states and encourage fewer and larger facilities at strategic locations
- 3 JNPT as major hub for logistic services in west India and coupled with Mumbai metropolitan region is one such strategic location
- 4 Proposed DFC will enable JNPT to cater to the need of requirement of multi modal facilities for these type of facilities
- 5 Estimated demand of land is 67.2 hectares by 2022 and 29 hectares of land by 2035

CFS and bonded warehouses

- 1 As per AECOM Sagaramala report container traffic at JNPT is projected to grow to 18.3 million TEU by 2035.
- 2 At present total capacity of CFSs serving JNPT is around 1.12 million TEU.
- 3 By 2035 the demand for CFS warehousing is expected to grow to 4.56 million TEU and an area of 462 hectares is required to cater to this demand.
- 4 At present the CFS serving JNPT are experiencing a sluggish growth and are under utilized. Taking these factors into consideration it was estimated that the demand at JNPT will be around 73 hectares by 2025 and 173 hectares by 2035.

Eco Park and Holding Ponds

1

Some portion of the area occupied by sparse mangroves is proposed to be converted to eco park and holding ponds.

2

Major functions of the eco park are:

- According to CRZ guidelines of 2011, page -10, clause number 8. I. ii. (f), allows for storage of non hazardous goods in notified ports if the areas are not ecologically sensitive and if proper safety measures are adopted. The eco park shall function as one such safety measure.
- According to CRZ guidelines of 2011, page -12, clause number 8.V.A(ii), 5 times the number of mangroves removed should be replanted for the construction of roads. The eco park shall be used for this purpose
- To act as a barrier to ensure that the mangroves do not creep back into the developable land and act as an additional green zone
- To act as a buffer zone in conjunction with the proposed holding ponds between the Nhava creek and developed land during floods

Transport Corridors

1

Three different types of roads are proposed

- Main arterial roads in 70 m corridor
- Sub arterial roads in 50 m corridor
- Collector roads in 30 m corridor

2

The corridors are proposed to cater to utilities, pipelines and drainages along with the roads and the widths proposed shall ensure that any new requirements can be taken up without disturbing the existing facilities.

3

The entire developable area is divided into 2 hectare plots and care has been taken that every plot has access to at least sub arterial road.

JNPT Proposed Phasing

Comprehensive Landuse Plan for JN Port

Key Map



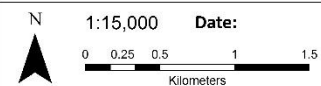
Legend

Proposed	Boundary
Agro Based Storage	JNPT Boundary
Bio Diesel	4th Terminal
CFS	Coastal Terminal
Car Shred	Elephanta Island
Cement Silo	Railtrack
Cold Storage	Harbour
Container Repair	
Container Scanner	Phasing
Eco Park	1
Equipment Park	2
Green Buffer	3
Mangrove	
Oil Depot	
Open Space	
PSP	
Parking	
Port User Residential	
Public Utility	
Research Labs	
Retail Warehousing	
Roads	
Social Commercial	
Vacant	
Waterbody	

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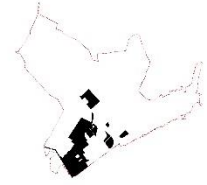
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Land Use proposed in phase-1

S. no	Activity	Area in Hectares
1	Retail Warehousing	64.89
2	Cold storage	38.00
3	Public Utility	35.28
4	Parking	27.51
5	Bio Diesel storage	15.35
6	Port user residential	13.80
7	Social Commercial	13.41
8	Container repair	9.19
9	PSP	8.84
10	Research Labs	8.59
11	car storage	6.26
12	Agro based storage	5.99
13	green Buffer	5.88
14	Container scanner	5.68
15	water body	2.73
16	cement silo	2.46
17	Roads	59.77
	Total	323.63

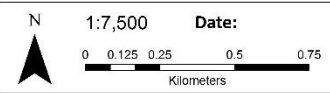
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Key Map



Legend

- Boundary**
- JNPT Boundary
 - 4th Terminal
 - Coastal Terminal
 - Elephanta Island
 - Railtrack
- Phase1**
- Agro Based Storage
 - Bio Diesel
 - Car Shred
 - Cement Silo
 - Cold Storage
 - Container Repair
 - Container Scanner
 - Green Buffer
 - PSP
 - Parking
 - Port User Residential
 - Public Utility
 - Research Labs
 - Retail Warehousing
 - Roads
 - Social Commercial
 - Waterbody



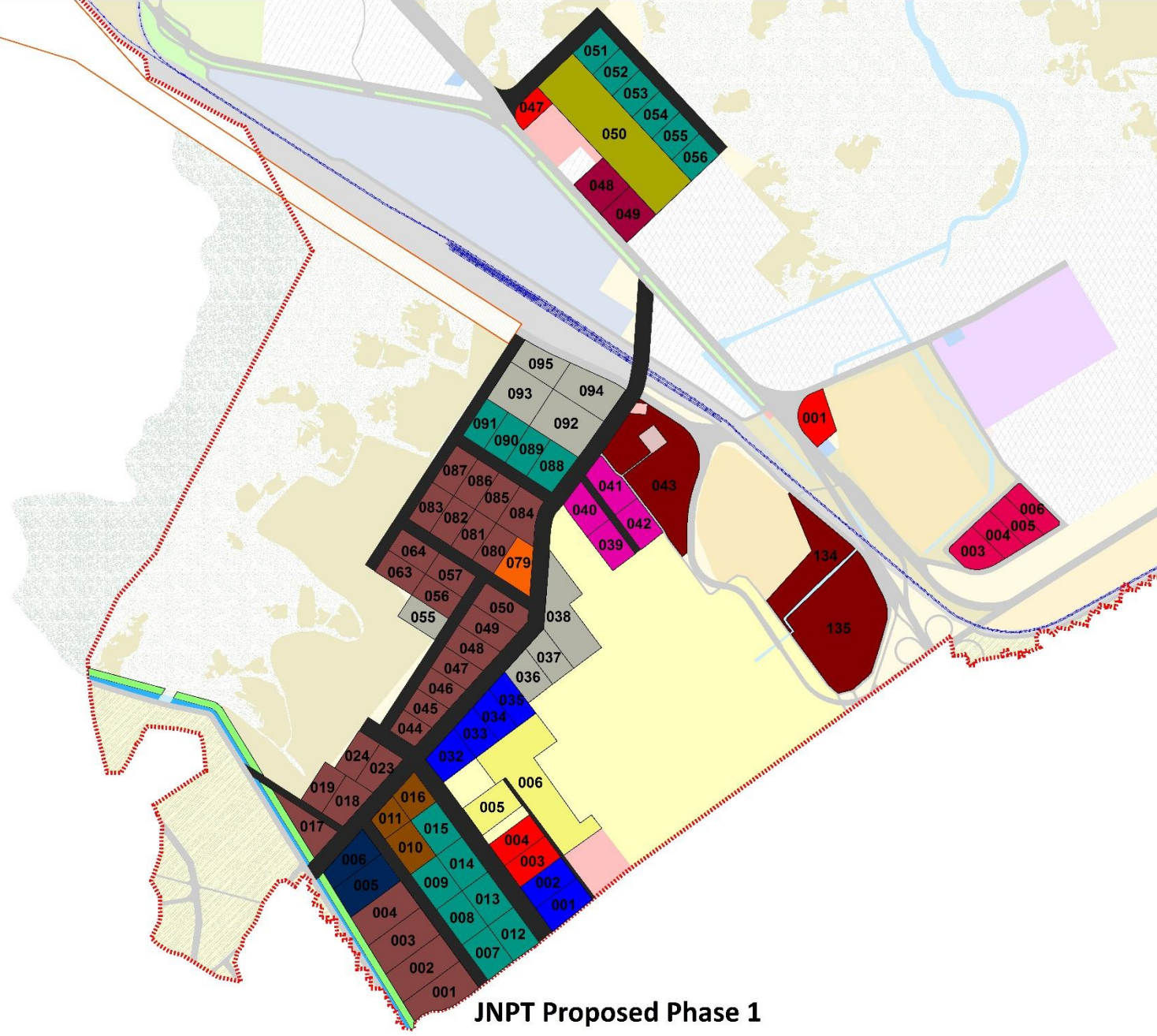
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JNPT Proposed Phase 1



Land Use proposed in phase-2

S.No	Activity	Area in hectares
1	CFS	70.65
2	Eco Park	205.61
3	Green Buffer	16.74
4	Parking	30.59
5	Public Utility	18.09
6	Social Commercial	6.81
7	Roads	64.81
8	Open space	11.59
9	water body	18.16
	Total	443.05

JNPT Proposed Phase 2

Comprehensive Landuse Plan for JN Port

Key Map



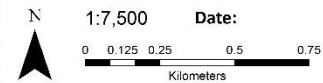
Legend

Boundary

- JNPT Boundary
- 4th Terminal
- Coastal Terminal
- Elephanta Island
- Railtrack
- Harbour

Phase2

- CFS
- Eco Park
- Green Buffer
- Open Space
- Parking
- Public Utility
- Roads
- Social Commercial
- Waterbody



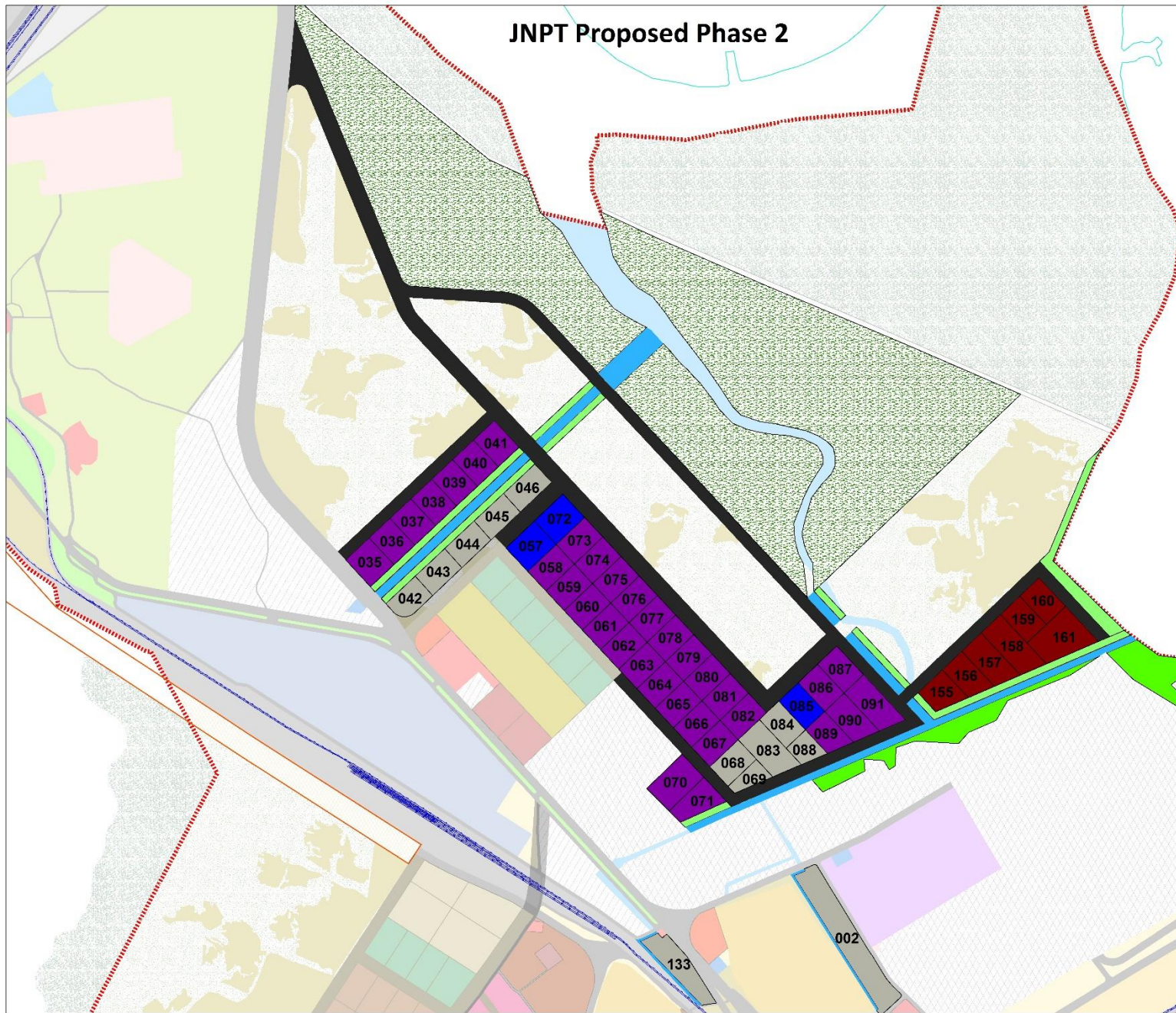
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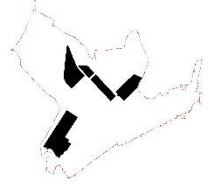
Land Use proposed in phase-3

S.No	Activity	Area in hectares
1	CFS	166.32
2	Cold storage	18.00
3	Equipment park	23.22
4	Liquid Bulk storage	42.00
5	Parking	70.76
6	PSP	1.53
7	Public utility	8.12
8	Retail Warehousing	24.00
9	Roads	41.51
10	social commercial	11.67
	Total	407.13

JNPT Proposed Phase 3

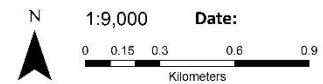
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Key Map



Legend

- Boundary**
- JNPT Boundary
 - 4th Terminal
 - Coastal Terminal
 - Elephanta Island
 - Railtrack
 - Harbour
- Phase3**
- CFS
 - Cold Storage
 - Equipment Park
 - Oil Depot
 - PSP
 - Parking
 - Public Utility
 - Retail Warehousing
 - Roads
 - Social Commercial



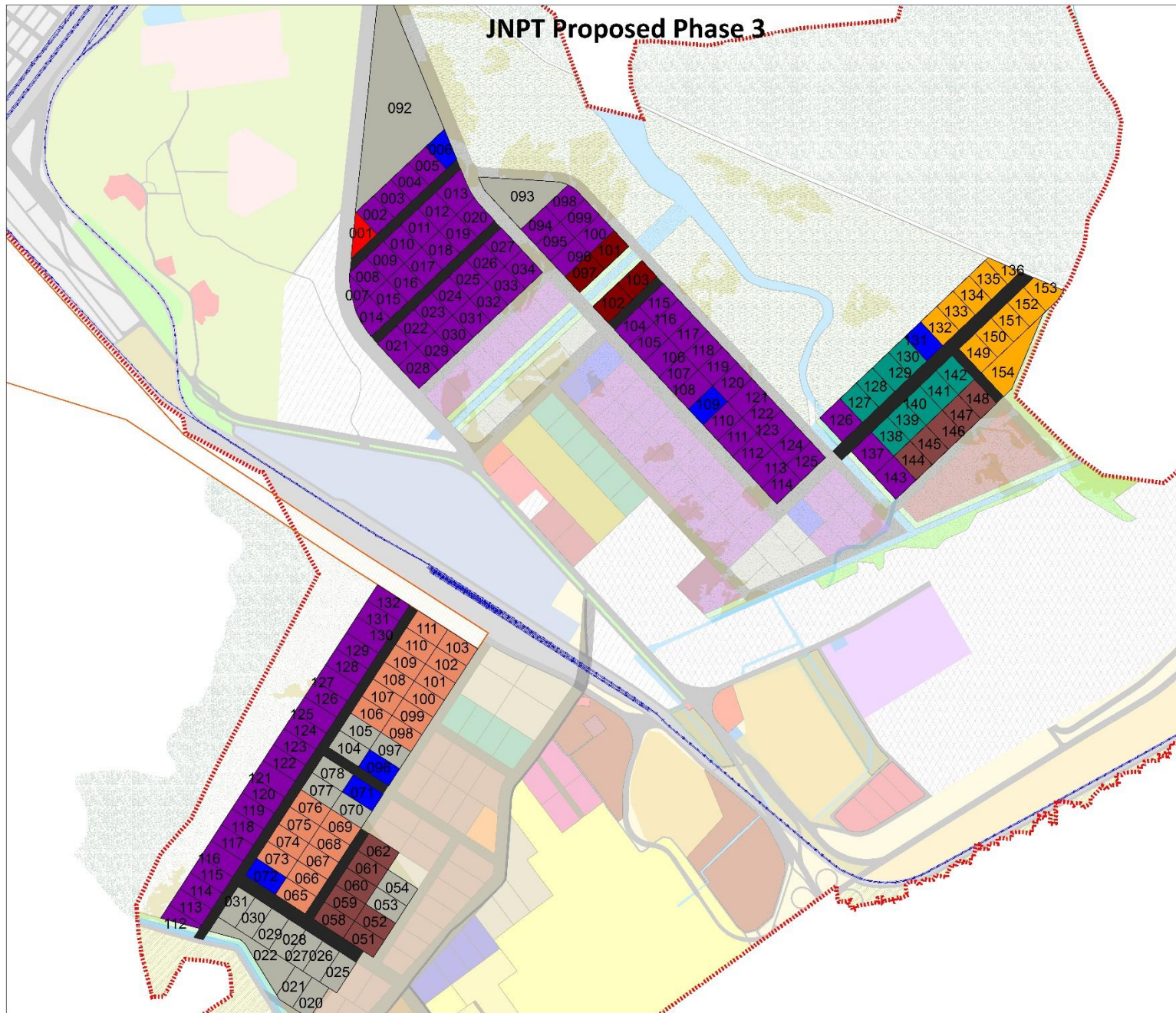
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JNPT Proposed Landuse

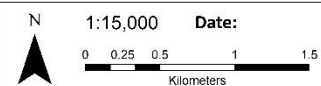
Comprehensive Landuse Plan for JN Port

Key Map



Legend

Boundary	Proposed
JNPT Boundary	Agro Based Storage
4th Terminal	Bio Diesel
Coastal Terminal	CFS
Elephanta Island	Car Shred
Railtrack	Cement Silo
Harbour	Cold Storage
Existing	Container Repair
4th Terminal	Container Scanner
Area Occupied by Others	Eco Park
Bund	Equipment Park
CFS	Green Buffer
Commercial	Mangrove
Dense Mangrove	Oil Depot
Green Zone	Open Space
Parking	PSP
Port	Parking
R&R	Port User Residential
Railway	Public Utility
Residential	Research Labs
SEZ	Retail Warehousing
Tank Farm	Roads
Exclusion	Social Commercial
Jetty	Vacant
Others Land	Waterbody
Village	
Waterfront	



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Proposed JNPT Landuse Area Statement

Landuse	Area	%
Dense Mangrove	295.70	8.82%
Bund	7.09	0.21%
CFS	264.30	7.88%
Parking	181.60	5.42%
PSP	24.48	0.73%
SEZ	270.50	8.07%
Area Occupied by Others	157.17	4.69%
Railway	122.80	3.66%
R&R	159.80	4.77%
Residential	111.00	3.31%
Public Utility	62.25	1.86%
Open Space	86.15	2.57%
Tank Farm	60.48	1.80%
Commercial	1.06	0.03%
Port	176.90	5.28%
Green Zone	233.30	6.96%
Area under berthing	82.77	2.47%
Roads	375.30	11.19%
4th Terminal	12.32	0.37%

Landuse	Area	%
Research Labs	8.59	0.26%
Vacant	34.26	1.02%
Port User Residential	13.80	0.41%
Oil Depot	42.00	1.25%
Social Commercial	31.89	0.95%
Retail Warehousing	88.89	2.65%
Cement Silo	2.46	0.07%
Cold Storage	56.00	1.67%
Agro Based Storage	5.99	0.18%
Car Shred	6.26	0.19%
Container Repair	9.19	0.27%
Mangrove	46.01	1.37%
Green Buffer	22.62	0.67%
Eco Park	205.60	6.13%
Equipment Park	23.22	0.69%
Bio Diesel	15.35	0.46%
Container Scanner	5.68	0.17%
Waterbody	50.17	1.50%
Total	3352.95	100.00%

Proposed JNPT Landuse Area Statement

Landuse category	Existing landuse	Proposed landuse		
		Phase 1	Phase 2	Phase 3
Port Use (Own)	603.84	131.38	113.49	121.92
Port Use (Leased)	358.31	169.84	77.47	285.20
Residential	111.00	13.80	0.00	0.00
Green Areas and Water Bodies	672.00	8.61	252.09	0.00
Other Uses	434.00	0.00	0.00	0.00
Total usage under each stage	2179.15	323.63	443.05	407.12
Cummulative total usage	2179.15	2502.78	2945.83	3352.95
Percentage Land usage of total land	64.99	74.64	87.86	100.00
Total JNPT Land	3352.95	3352.95	3352.95	3352.95

Concluding Remarks

- 1 Land use planning is based on the flexible planning so that future expansion does not hinder existing operations
- 2 JNPT can change land use according to the prevailing requirements in the future
- 3 The time line of the phases shall be finalized in the final report.

Thank you



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Major port policies and guidelines (1/2)

- 2004 guidelines
 - Allotment outside the custom bound areas can be made only on tender basis up to a maximum duration of 30 years subject to board approval.
 - However, land allotments to government departments/CPSUs/SPSUs can be made on nomination basis.
 - Allotment of lands outside custom bound areas can be made for both port related and non-port related activities.
 - Any allotment which leases land for a period more than 30 years can be done only upon approvals from central government.
 - The lease/license rates should be as per the SOR issued by TAMP and is to be reviewed every 5 years. The SOR should be arrived at by taking 6 percent of the market value of the plot as rent per annum.
- 2010 guidelines
 - Allotment of land within custom bond areas for permanent structures is not allowed. Chairman can allow medium term lease for 10 years for temporary structures.
 - If the land outside custom bond areas are licenced, the same shall be governed by the conditions used for custom bond areas

Major port policies and guidelines (2/2)

- 2010 Guidelines (contd....)
 - Allotment of land outside custom bond areas on nomination basis for institutions other than government departments, CPSUs/SPSUs should be made with ministry's approval.
 - In custom bond areas, allotment should be made by inviting competitive tenders, resorting to nomination basis only in exceptional cases.
 - Outside custom bond areas allotment should preferably be made on lease basis. However, licencing can also be allowed after recording the reasons for the same.
- 2014 guidelines
 - Land outside custom bond areas can be allocated to joint ventures of CPSUs/SPSUs with private parties on nomination basis, provided that the CPSUs/SPSUs, state authorities have majority shareholding in the JV.
 - The allotment to private parties should be made on tender basis only with a reserve price worked out by land allotment committee of the port and approved by port trust board and by TAMP.