

# Telangana State Industrial Infrastructure Corporation Ltd.,

(A Government of Telangana Undertaking)



Lr.No: EMP/TSIIC/55/EC-NIMZ/2017-18

Date: <sup>08</sup> 07.10.2021

To  
Member Secretary (EAC),  
Ministry of Environment, Forest and Climate Change,  
Indira Paryavaran Bhawan,  
3<sup>rd</sup> Floor, Vayu Wing, Jor Bagh Road,  
Aliganj, New Delhi – 110003

**Kind Attention:** Shri Amardeep Raju, Scientist E

**Sub:** Development of Zaheerabad National Investment and Manufacturing Zone (NIMZ) in Sangareddy District of Telangana by M/s Telangana State Industrial Infrastructure Corporation Limited - Environmental Clearance Proposal No. IA/TG/NCP/71421/2017 and File No 21-237/2017-IA.III- Submission of responses to EAC observations- Request for Environmental Clearance – reg.

**Ref:** Minutes of 258<sup>th</sup> meeting of Expert Appraisal Committee held on 17-18 March, 2021 for Projects related to Infrastructure Development, All Ship breaking yards including ship breaking units 7(b); Industrial Estate/Parks/Complexes/Areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes 7(c); Ports, harbors, break waters, dredging 7(e) and National Highways 7(f).

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Sir,

I invite kind attention to the subject and reference cited.

In response to the observations made by the EAC during the 258<sup>th</sup> EAC meeting held on 17-18 March ,2021, pertaining to Item No. 3.7, of Zaheerabad National Investment and Manufacturing Zone (NIMZ) in Sangareddy District of Telangana. the point wise clarifications are herewith submitted for kind perusal with a request to consider for early issue of Environmental Clearance for the project proposal.

Thanking you,

Yours faithfully

  
8-10-21  
Chief Engineer

Encl: as above





# Telangana State Industrial Infrastructure Corporation Limited

(A Govt. of Telangana Undertaking)

## Development of NIMZ Near Zaheerabad, Telangana



### EC Clarifications

October 2021



L&T Infrastructure Engineering Limited



Clarifications to the queries raised during 258<sup>th</sup> EAC held on 17<sup>th</sup> -18<sup>th</sup> March, 2021 through Video Conferencing for the projects related to Industrial Estate/Parks/Complexes/Areas, Export Processing Zones, Special Economic Zones, Biotech Parks, Leather Complexes 7(c)

**1 “The planning of Industrial Estate should be based on the criteria mentioned in the Ministry’s Technical EIA Guidance Manual for Industrial Estate (2009) as well as CPCB’s Zoning Atlas Guidelines for positioning of industries. Phase wise industrial planning be submitted”**

Considering the technical EIA guidance manual for Industrial Estate (2009) and CPCB industrial categorisation, NIMZ master plan has been prepared and principles followed are elaborated.

**1.1 Planning Principles**

The aim is to develop NIMZ for the developing the industrial scenario in Telangana with an excellent state-of-the art infrastructure facilities and professional management to attract and support investments in industrial and allied sectors. Hence, NIMZ in the form of prepared land is proposed with general and specialized infrastructure facilities. It focuses on development of large, medium and small-scale industries, as also trading and services. All facilities required for target industries are planned.

Thus, the proposed NIMZ will function as an integrated package having the required facilities and service activities with sufficient provision for future growth and expansion. Given the industrial base of Telangana and the concept of NIMZ for taking regional advantage, the proposed project will further **strengthen Telangana’s position in the industrial sectors map of the country and will contribute to the economy.**

A careful planning exercise has been done to position the project considering the geographic, demographic, raw material resources, industrial, economic and social characteristics of the region and it is in this context that the master planning of the project assumes its significance.

The purpose is to create a thriving place where industrialists, research & development knowledge workers, entrepreneurs, venture capitalists, investment bankers can work, live, learn and play.

It is important to develop the master plan to accommodate both the user industries area requirements and requirements of the various identified development components of the proposed NIMZ. This chapter deals on master planning of NIMZ.

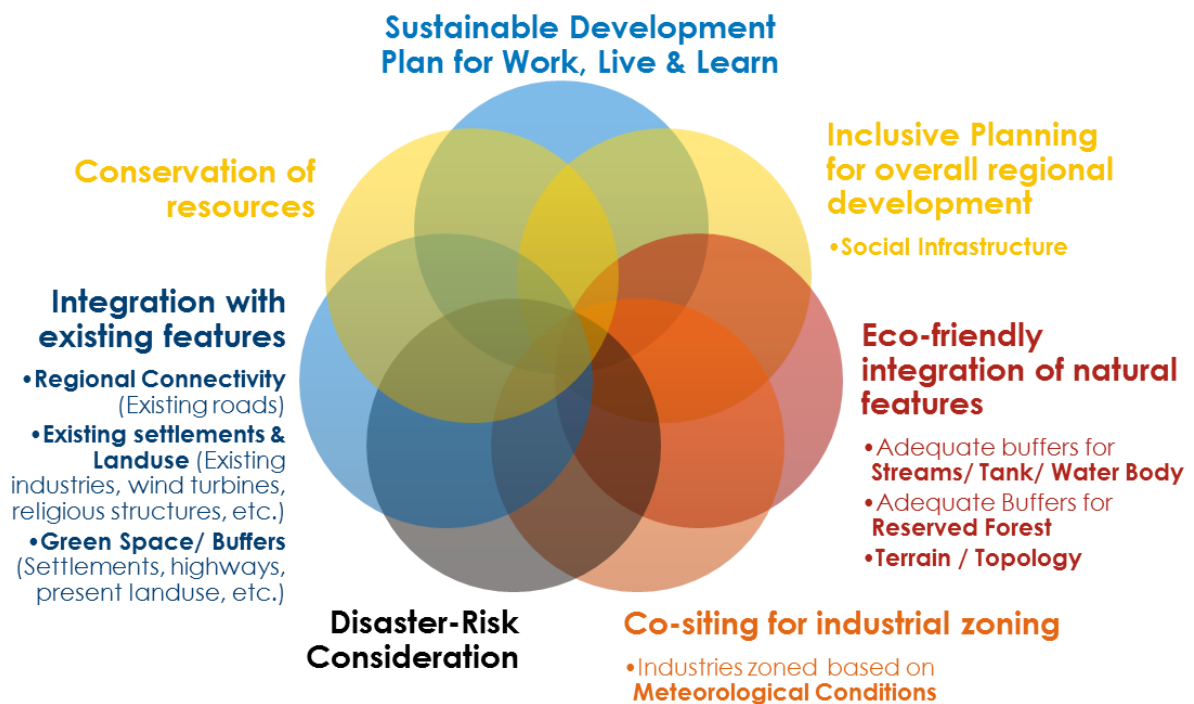
To implement this uniquely conceived NIMZ into a fully integrated functionally best facility and to promote a new 'industrial image in Telangana State, as well as to develop confidence for foreign and local investors to undertake the development of the project and subsequent operation of their businesses, certain planning objectives / principles are envisioned.

**Planning principles and objectives**

- Designate overall zoning
- Evolve optimal landuse mix
- Zoning to accomodate different industries based on their compatibility
- Provide integrated infrastructure
- Develop various utilities and amenities
- Phased development of the project
- Compliance to various planning norms and guidelines

**1.2 Evolution of Conceptual Master Plan for NIMZ**

The core principles for evolving the project is based on the technical EIA guidance manual for Industrial Estate (2009) and CPCB industrial categorisation and overall vision laid out for NIMZs in the National Manufacturing Policy, 2011 and on the broad objective of establishing a world class business environment targeted essentially at high growth industrial & infrastructure sectors. They are briefly described below:



**Sustainable Development Plan for Work, Live and Learn:** The development is envisaged around the basic principles for having synergy between industries, environment and community. The site master plan is prepared to integrate these aspects – work (industrial zone), live (residential, education, health, recreation, cultural) and learn (training institute, vocational institute, etc.)

**Inclusive Planning:** The proposed NIMZ node is envisaged to be developed not only keeping in mind the population living and working within the project area but also the surrounding population. This will be achieved by providing/improving the road links between the surroundings, improvement and provision of social infrastructure, technical infrastructure benefitting the local population, etc. These parameters in a longer run would help in achieving inclusive regional development which would limit any out migration for better employment from the region.

**Cluster approach to industrial zoning:** The master plan is prepared based on the eco-industrial concept wherein the industries with similar infrastructure needs or industries with mutual requirements in terms of raw material, effluent generation, product distribution, etc. are zoned together. This will result in segment/cluster specific requirements addressed collectively to leverage benefits

**Eco-friendly integration of national features and cultural spaces:** Existing site features that are identified to be protected shall be effectively integrated in to the master plan in an environmental-friendly manner.

**Disaster-Risk Consideration:** The probable risk related to industrial disasters, and the large land spread of the project, multiple evacuation points are planned. The zoning of the non-processing area is planned in Upwind direction of processing zone with adequate green buffers and lung space.

**Conservation of resources/facilities:** Sustainable infrastructure planning, incorporation of eco-friendly concepts and environment sustainability, water conservation schemes, environmental infrastructure, recycling and reuse options etc. are incorporated in the NIMZ development program. NIMZ is planned with water recycling, waste management, rain water harvesting, use of non-renewable energy like solar powered street lights, etc. for efficient use of resources.

NIMZ development plan identifies the constraints and appropriate road network including the approach roads, road congestion removal by augmentation / widening of existing roads is considered.

**Green Space/Lung Space:** NIMZ is planned with green spaces based on the need of the particular zone. They are planned to be meaningful spaces serving the very purpose and avoiding being unattended spaces.

**Settlements:** There are few existing settlements within and around the project boundary. Some of them are having access passing through project area. Those existing access have been integrated in master plan.

### **1.2.1 Sustainable and Smart Initiatives**

The master plan is evolved based on the design concepts discussed earlier. Apart from the master plan **the proposed node, shall also reflect state of the art “smart initiatives”** as stipulated below which shall be dovetailed during the detail engineering stage to formulate an inclusive-sustainable industrial development. The sustainable elements envisaged include:

- Site planning & management
- Sustainable transport
- Water conservation
- Energy efficiency
- Material & resource management
- Waste minimization technologies
- Scientific treatment of waste and energy recovery possibilities to reduce power consumption
- Use of eco-friendly materials

### **1.2.2 Overall Master Plan for the Node**

Based on these concepts and project site features (in and around), zoning for the node is arrived at as shown in figure below. The whole area is divided into various zones. The zoning design is done to have a smooth pedestrian circulation by simplifying the movement patterns and allow the inter-zone movement. **Parking is planned at strategic locations catering to the visitor’s vehicles.**



**Figure 1: Zoning Concept**

The western and eastern part of project site are identified for manufacturing activities (industrial) whereas the central part is zoned for non-processing activities such as logistics zone, residential zone and support services zone. This is planned in central part as it will be away from upwind direction of manufacturing area and non-processing traffic can be segregate and managed without any interference with manufacturing area. The main transport spine will run east-west linking the manufacturing zones with each other and the regional network (through SH-14 & SH-16). Along the main spine commercial activities are proposed.

The land use pattern of the NIMZ is determined considering the land requirement for various industrial units, logistics requirements, industrial infrastructures, technical infrastructure residential zone, various social amenities and commercial spaces etc. The master plan overall NIMZ Zaheerabad node has been completed.

#### Industrial Zone to include

- Industries in Automobile, Food Processing, Metals, Machinery, Non Metallic Mineral, Transport Equipments and Electrical Equipments

#### Logistics zone to include -

- Rail siding, railway yard, railway station, truck loading/ unloading area, cold storage, weigh bridge, control cabin, open stake yard, Warehousing, loading/ unloading area, cold storage, security, Truck parking, weigh bridge, fuel station, driver facilities, repair & maintenance shops, transporter office, bus terminal, etc.

#### Green & Open Space to include -

- Pheripheral buffer, Recreational area, landscaped area, play ground, etc.

#### Residential Zone to include -

- Housing for hostels, housing for LIG, MIG and HIG, club house, guest house, etc.

#### Technical Infrastructure Zone to include -

- Incubation centre, R&D facilities, QA & QC, laboratory, raw material bank, certification lab, training centre, technical institutions, etc.

#### Utilities to include -

- Water supply facilities, wastewater facilities, waste management facility, treatment plants, power sub-stations, etc.; & Amenities to include admin centre, fire station, police post, post office, security centre, marketing office, etc.

#### Commercial Zone to include -

- Shopping complex, mall, kiosk & plazas, shops, fuel station, repair centres, Hotels, restaurant, centralised kitchen, guest house, Banks, ATMs, service apartment, convention centre, commercial space, etc.

#### Social Zone to include -

- Community centre, burial area, crematorium, art gallery, day care centres, nursery, primary school, secondary school, including play ground, Dispensary, health centres, hospital, etc.

### 1.3 Siting Criteria adopted for Master Plan

Siting criteria issued by CPCB and TSPCB has been taken into confidence during master plan preparation and following is the compliance of the same:

**Table 1: CPCB Siting Criteria and its Compliance**

S. No	Siting Criteria	Parameter (in Meters)	NIMZ Master Plan Compliance
1.	Distance from National Highway	>100	Yes, NH-65 is 10 km south of Site
2.	Distance from State Highways	>50	Yes, SH-14 & 16 passing through the site and 50m buffer is left on either side of SH
3.	Distance from Major district road/ Village roads	>25	No MDR is located within 25 m, village roads around the site are more than 25 m
4.	Environmental Sensitive areas and biodiversity areas to be avoided	Avoided	No environmental sensitive areas such as national park, wildlife sanctuary is in 10 km radius
<b>Other criteria adopted</b>			
5.	Forest area	-	No forest area is involved

<b>S. No</b>	<b>Siting Criteria</b>	<b>Parameter (in Meters)</b>	<b>NIMZ Master Plan Compliance</b>
6.	Critically polluted area	Avoided	No critically polluted area is located in 50km
7.	Water bodies – streams	9m	10 m green buffer is provided
8.	Water bodies – ponds	9m	15m green buffer is provided
9.	Water availability	-	Surface water is available at Singur reservoir

Master plan of NIMZ is prepared considering above guidance manuals and siting criteria:

Master Plan of NIMZ is given as **Figure 2**.

#### **1.4 Positioning of Industries as per CPCB categorisation**

Based on the following CPCB categorisation of industries, sectors proposed were classified into Red, Orange, Green and White and zoning of same is adopted in master plan

- Industrial Sectors having Pollution Index score of 60 and above – Red category
- Industrial Sectors having Pollution Index score of 41 to 59 –Orange category
- Industrial Sectors having Pollution Index score of 21 to 40 –Green category
- Industrial Sectors having Pollution Index score incl.& upto 20 -White category

Positioning of Industries as per CPCB categorisation is given as **Figure 3**.

#### **1.5 Phase wise industrial planning**

NIMZ will be developed in two phases and below is phase wise master plan Phase wise NIMZ Master Plan was given as **Figure 4**.

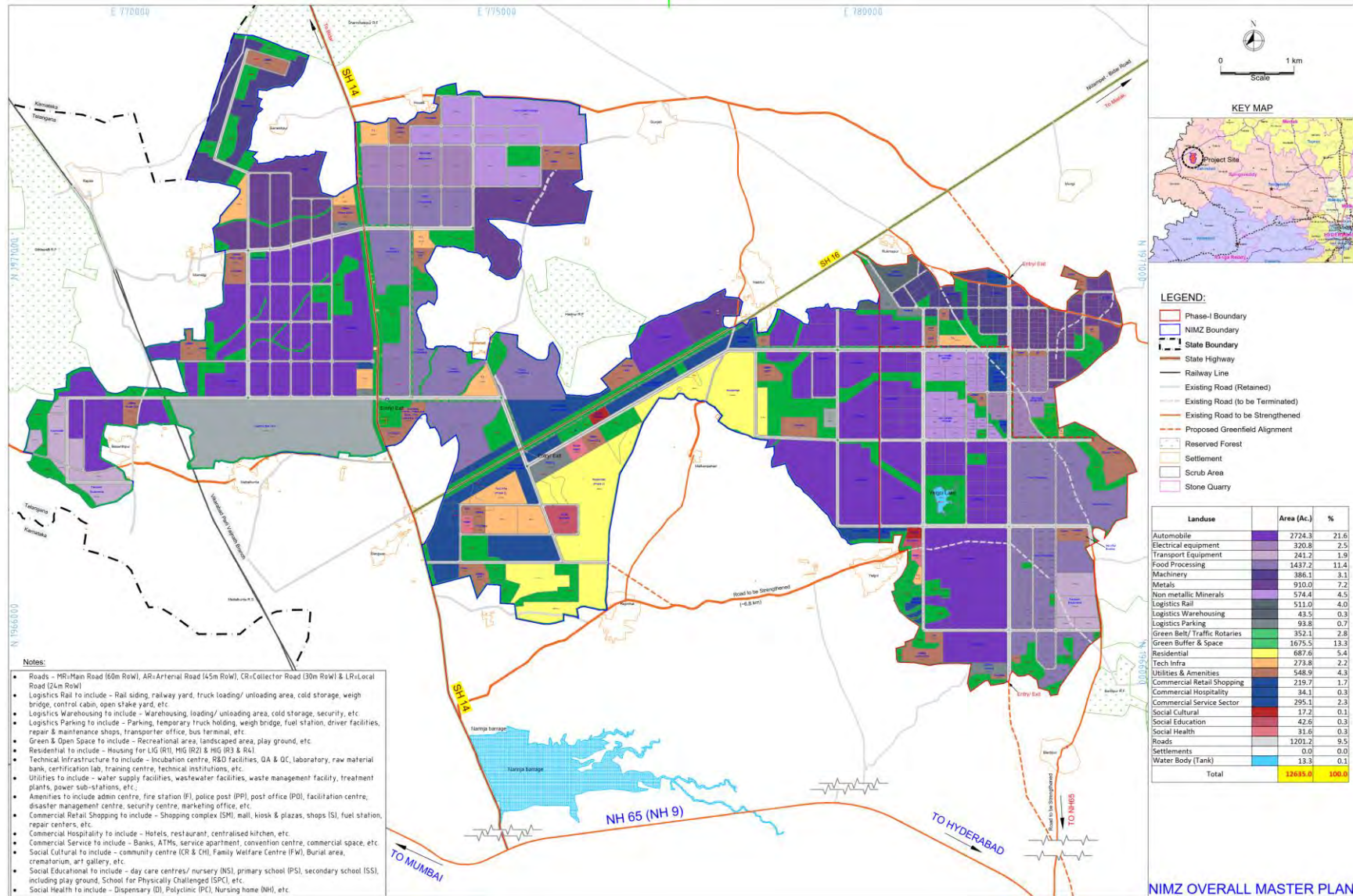


Figure 2: Master Plan of NIMZ

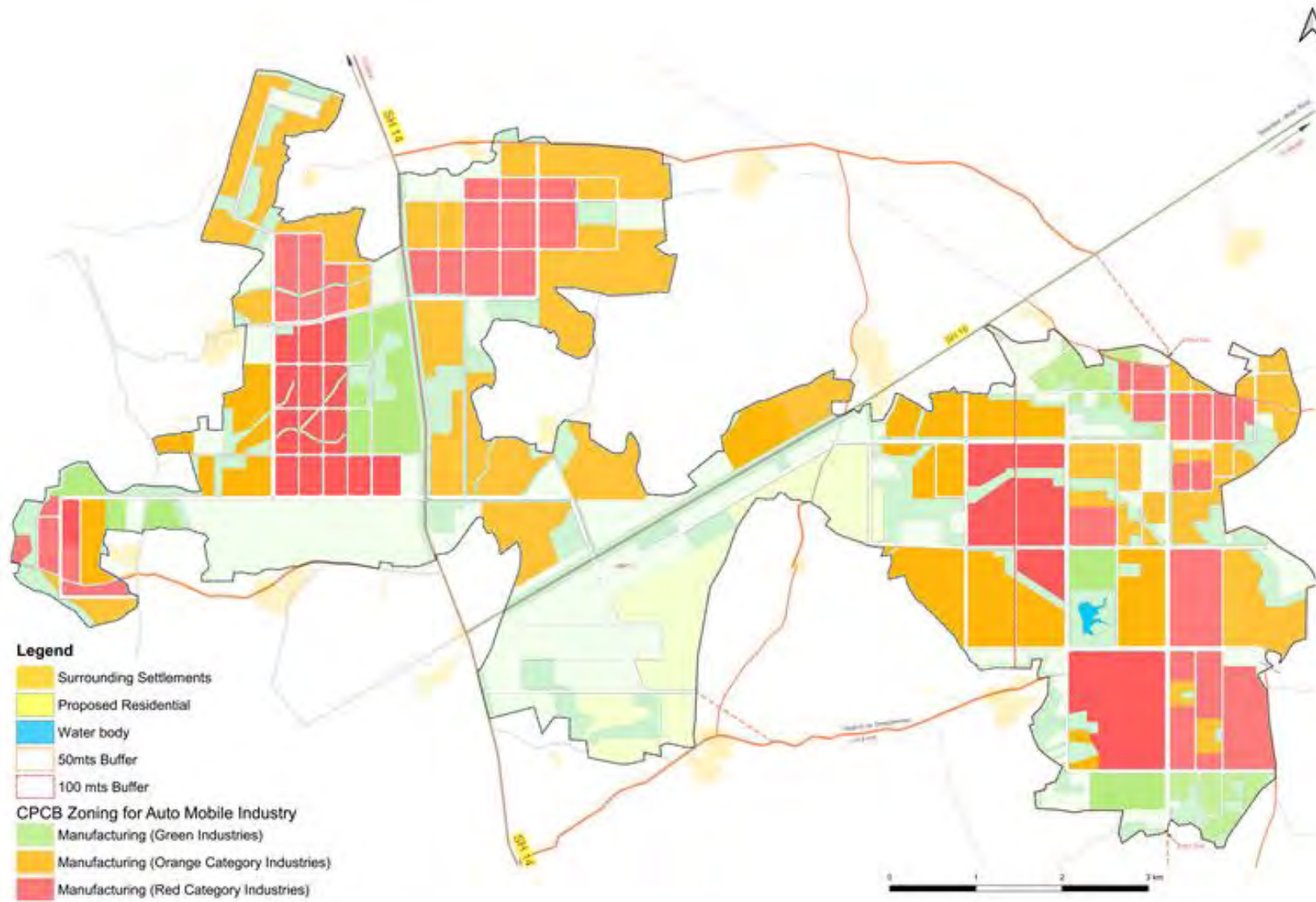


Figure 3: Positioning of Industries as per CPCB categorisation

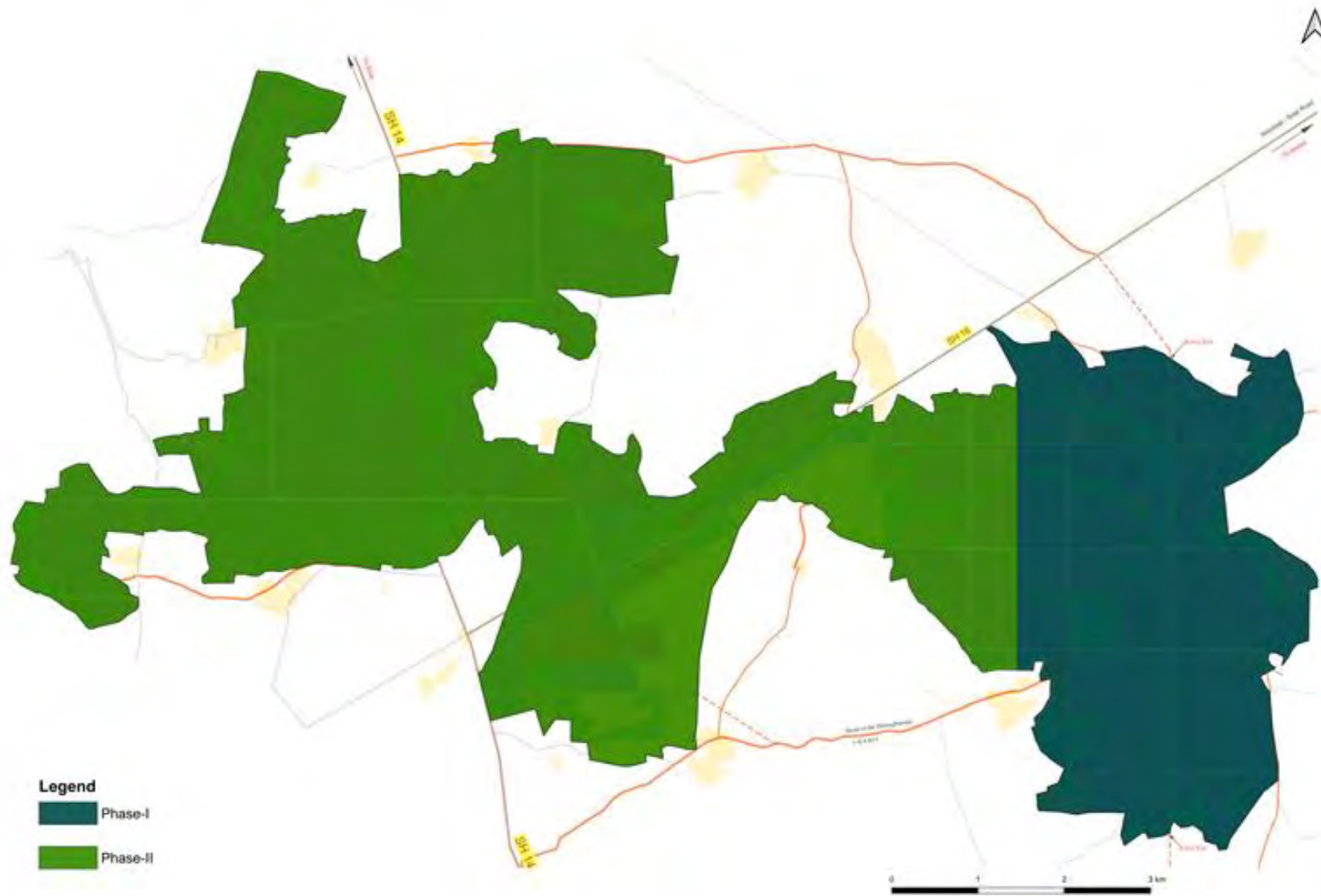
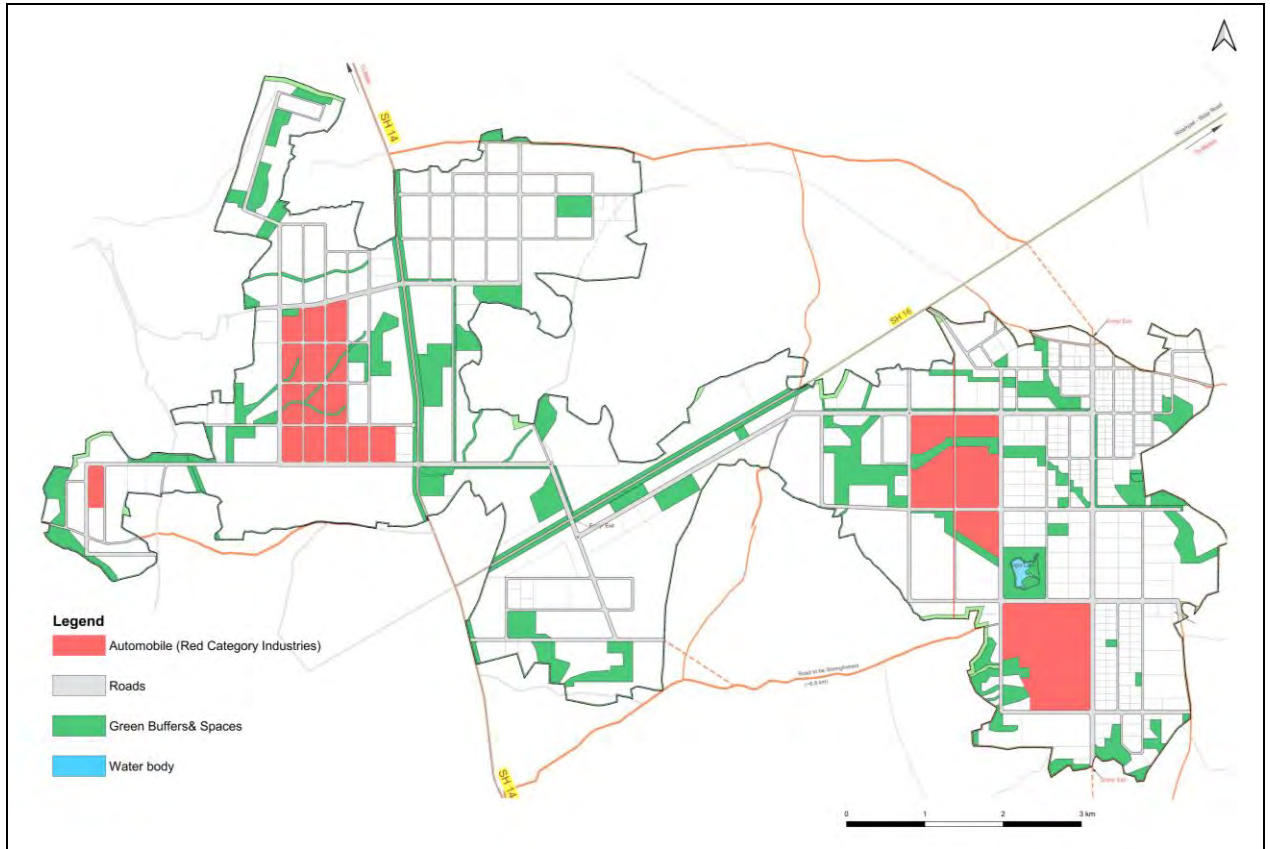


Figure 4: Phase wise Development of NIMZ

## 2 Automobile industry will be engaging in painting activity, which comes under Red category, hence industries can be clearly demarcated

Automobile industry which will be engaged in painting activity falls under red category is demarcated in master plan and depicted below:



**Figure 5: Automobile Industry under Red Category demarcated in Master Plan**

## 3 Several representations were received by the Ministry on the issues related to land acquisition and compensation paid to the landowners. The EAC suggested Ministry to forward representations to the PP so that a detailed response in a tabular form be submitted on the issues raised by the stakeholders

Detailed response in a tabular form for the representations received were prepared and attached as **Annexure 1**.

## 4 The Proponent should submit a detailed report about direct and indirect type of employment opportunities during construction and operation phase

Market and Demand Assessment has been carried out by PWC with following three scenarios which also include estimation of projected employment

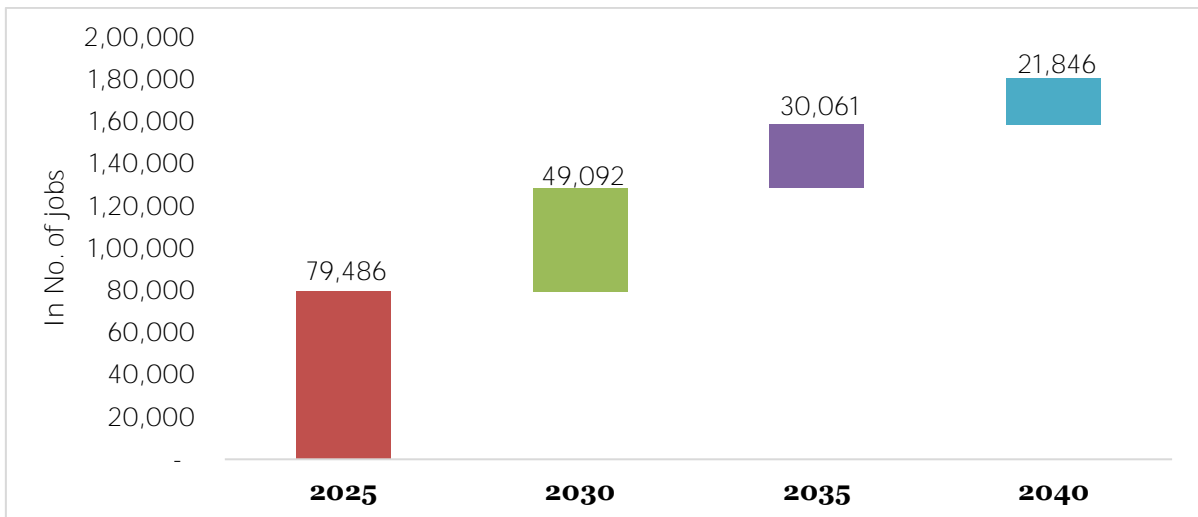
1. Business as Usual (BAU) scenario: BAU scenario assumes that the sector growth would be aligned to its historical growth
2. Business Induced Scenario 1 (BIS 1): BIS 1 scenario assumes that by undertaking certain strategic interventions, the sector can achieve a much higher growth trend in future

- Business Induced Scenario 2 (BIS 2): BIS 2 scenario assumes that the sector would consistently achieve higher growth which will lead to higher demand for land in addition to implementation of all the proposed strategic interventions

**Table 2: Employment Projections under various scenarios**

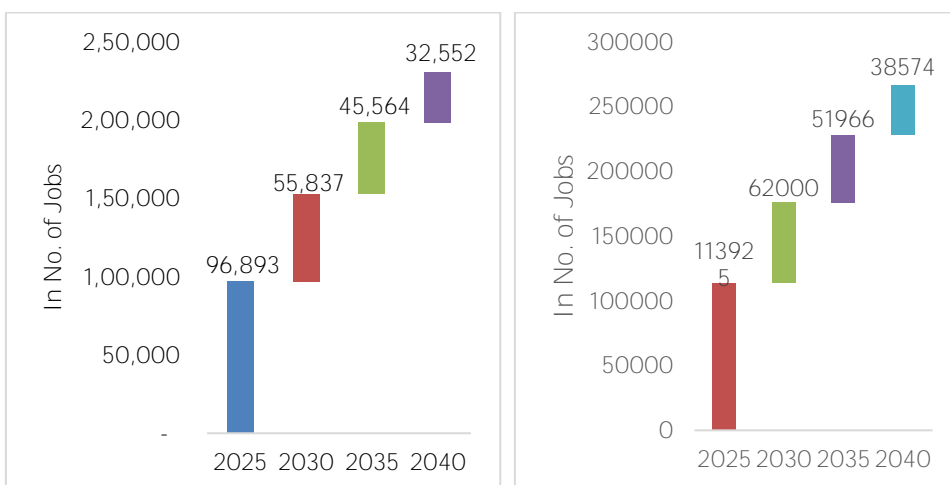
Parameters	Unit	by 2025	by 2030	by 2035	by 2040
<b>BIS 2 scenario</b>					
<b>Employment</b> (Direct + Indirect)	In No. of people	113,925	175,925	227,892	266,466
<b>BIS 1 scenario</b>					
<b>Employment</b> (Direct + Indirect)	In No. of people	96,893	152,730	198,294	230,846
<b>BAU scenario</b>					
<b>Employment</b> (Direct + Indirect)	In No. of people	79,486	128,578	158,639	180,485

It is assessed that around 1.8 lakh (Direct + Indirect) jobs may be generated in NIMZ Zaheerabad during next 20 years in BAU scenario.



**Figure 6: Employment generation projections (Direct + Indirect jobs) – BAU scenario**

Similarly, it is projected that around 2.3 lakh jobs in BIS 1 and around 2.66 lakh jobs (Direct + Indirect) in BIS 2 may be generated in NIMZ Zaheerabad during next 20 years. The below figure highlights the same:



**Figure 7: Employment generation projections (Direct + Indirect jobs) – BIS 1 & BIS 2 scenario**

The details of employment projections considered for proposed sectors were given below

**Table 3: Sector wise Employment Projections**

<b>Industrial Sector</b>	<b>Employment</b>
Automobile	25,598
Electrical equipment	10,795
Food Processing	23,852
Machinery	14,241
Metals	34,007
Non-metallic minerals	17,995
Transport Equipment	6,744
Total Direct Employment	1,33,233
Total Indirect Employment	1,33,233
<b>Total Employment</b>	<b>2,66,466</b>

## 5 An elaborate report presiding land acquired, compensatory details and the period for settlement has to be sorted according to the State Government Policy

The total extent of NIMZ is ~12,635 acres (Acres 12,635.14 guntas) and category wise land details are presented in **Table 4**. An area of Acre 3862.10 guntas is government land (assigned and unassigned) and acre 8773.04 guntas is patta/private land is involved in the total extent of acres 12635.14 guntas.

**Table 4: Abstract –Distribution of land for NIMZ in Jharasangam & Nyalkal Mandals**

S. No.	Name of Mandal	Patta land	Govt. land			Grand Total
			Un-assigned	Assigned	Total	
<b>(In Acres and guntas<sup>1</sup>)</b>						
1	Nyalkal Villages (14)	6644.14	668.16	1875.24	2543.04	9188.14
2	Jharasangam (3 villages)	2128.30	97.07	1221.03	1318.10	3446.40
Total		8773.44	765.23	3096.27	3862.10	12635.14
Roundoff						<b>~12635</b>

(Source: TSIIC, Zonal Office)

Village wise land details are given in Table 6. Around An area of Ac 2,924.38 gts. is under possession of TSIIC, out of which patta/private land is Ac.1311.38 gts and government land is Ac. 1613 (Assigned land Ac.1475.12 gts and unassigned land Ac.137.28 gts). The details of the land under possession are presented in the **Table 5**.

**Table 5: Details of Land under Possession of TSIIC**

S. No.	Name of Mandal	Name of Village	Extent of Patta Land	Extent of Govt. Land (both assigned and unassigned)	Total
			<b>(In Acres and guntas)</b>		
1	Jharasangham	Bardipur	139.38	201.24	341.22
		Chilepally	257.21	161.11	418.32
		Yelgoi	747.14	828.71	1577.05
2	Nyalkal	Rukmapur	121.12	160.45	282.17
		Mungji	123.0	261.49	385.09
<b>Total</b>			<b>1389.05</b>	<b>1616.00</b>	<b>3005.05</b>

<sup>1</sup> 40 gunta=1 acre (for Eg. 8773.04 is 8773 acres and 04 Guntas)

**Table 6: Land Details of NIMZ Project (in acres and guntas)**

Sl. No.	Name of the Village	Private (Patta) Land			Assigned Land			Un-Assigned Land			Grand Total		
		Acquired	To be Acquired by TSIC	Total	Acquired	To be Acquired by TSIC	Total	Acquired	To be Acquired by TSIC	Total	Acquired	To be Acquired by TSIC	Total
1	2	3	4	5=3+4	6	7	8=6+7	9	10	11 =9+10	12=3+6+9	13=4+7+10	14=12+13
1	Bardipur	139.38	90.16	230.14	201.24	14.29	216.13	0	0	0	341.22	105.05	446.27
2	Cheelapalty	257.21	188.31	446.12	102	9.00	111.00	59.11	0	59.11	418.32	197.31	616.23
3	Yelgoi	747.14	704.30	1452.04	791.35	101.35	893.30	37.36	0	37.36	1577.05	806.25	2383.30
4	Rukmapur	121.12	148.37	270.09	155.15	29.27	185.02	5.30	0	5.30	282.17	178.24	461.01
5	Mungi	123.00	148.14	271.14	227.18	20.33	248.11	34.31	0	34.31	385.09	169.07	554.16
6	Mulkanpahad	0	145.39	145.39	0	54.12	54.12	0	15.34	15.34	0	216.05	216.05
7	Hadnoor	0	512.31	512.31	0	51.35	51.35	0	26.17	26.17	0	591.03	591.03
8	Nyamthabad	0	768.03	768.03	0	255.28	255.28	0	186.19	186.19	0	1210.10	1210.10
9	Huselli	0	594.13	594.13	0	108.07	108.07	0	25.09	25.09	0	727.29	727.29
10	Rejinthal	0	1481.14	1481.14	0	191.09	191.09	0	62.11	62.11	0	1734.34	1734.34
11	Gunjetti	0	291.33	291.33	0	0	0	0	0	0	0	291.33	291.33
12	Gangwar	0	38.17	38.17	0	0	0	0	0	0	0	38.17	38.17
13	Kalbemal	0	171.16	171.16	0	73.38	73.38	0	110.02	110.02	0	355.16	355.16
14	Ganeshpur	0	433.00	433.00	0	118.01	118.01	0	70.14	70.14	0	621.15	621.15
15	Mamidigi	0	1214.31	1214.31	0	200.09	200.09	0	53.00	53.00	0	1468.00	1468.00
16	Metalkunta	0	318.10	318.10	0	303.07	303.07	0	59.00	59.00	0	680.17	680.17
17	Basanthpur	0	132.24	132.24	0	85.25	85.25	0	19.09	19.09	0	237.18	237.18
	TOTAL	1390.85	7383.39	8773.04	1478.12	1618.15	3096.27	137.28	627.35	765.23	3005.05	9630.09	12635.14

Patta land and assigned land has been **acquired as per** “The Government of Telangana has constituted a committee vide G.O.Ms. No. 123, Revenue (JA & LA), dated 30.07.2015, as per the negotiated price with the vendors for their lands directly from the Pattadars/Landowners as per the said G.O. Unassigned land is a government land used to be transferred and mutation is to be done through revenue department. For some lands, as per act 30 of 2013 and have passed consent award for land acquisition.

## 5.1 Compensation Details of Acquired Lands

Sl. No.	Name of the Village	Private (Patta) Land		Assigned Land	
		Acquired	Compensation paid/acre as per revenue agreement	Acquired	Compensation paid/acre as per revenue agreement
1	Bardipur	139.38	Rs.5.65 to Rs.7.0 lakhs	201.24	Rs.3.25 to Rs.4.25 lakhs
2	Cheelapatty	257.21	Rs.5.65 to Rs.9.0 lakhs	102.0	Rs.3.25 to Rs.4.0 lakhs
3	Yelgoi	747.14	Rs.5.65 to Rs.7.0 lakhs	791.35	Rs.3.25 to Rs.4.25 lakhs
4	Rukmapur	121.12	Rs.5.65 to Rs.9.0 lakhs	155.15	Rs.3.25 to Rs.4.0 lakhs
5	Mungi	123.00	Rs.5.65 to Rs.9.0 lakhs	227.18	Rs.3.25 to Rs.4.0 lakhs

Payments were made through individual cheques and after complete payment, registration in favour of TSIIC was completed. Village wise acquisition and payment details is provided below and sample agreements are given as **Annexure 2**.

STATEMENT SHOWING THE LAND ACQUISITION REPORT ON NIMZ - PROJECT ZAHEERABAD AS ON 31.07.2021														
VILLAGE: BARDIPUR			MANDAL : JHARASANGAM					DISTRICT: SANGAREDDY						
Sl.No.	Name of the Village	Private Land ( Patta )			Assigned Land			Un-Assigned Land			Grand Total			Remarks.
		Acquired	Acquired by TSIIC	Total	Acquired	Acquired by TSIIC	Total	Acquired	Acquired by TSIIC	Total	Acquired	Acquired by TSIIC	Total	
1	2	3	4	5 = (3+4)	6	7	8 = (6+7)	9	10	11 = (9+10)	12 (3+6+9)	13 (4+7+10)	14 = (12+13)	15
1	Bardipur	139.38	90.17	230.15	201.24	13.29	215.13	0	0	0	341.22	104.06	445.28	


Remarks :-1. Private (Patta) lands: An extent of Acs. 137.12 gts of patta land acquired as per G.O.Ms.No.123 Rev. (JA & LA) Dept, dated. 30.07.2015. The land owners/pattadars have submitted consent in Form-I and Form-II (Affidavit and Agreement) to the District Level Land Procurement Committee headed by the District Collector, Sangareddy. The payment of land compensation was decided in the negotiation committee @ Rs. 5,65,000.00 per acre. Accordingly the payment was paid through individual cheques and the land got registered in favour of TSIIC Ltd., during the year 2016, for establishment of NIMZ Project. A copy of registered document is enclosed. Later on, the Spl. Dy. Collector, (LA) NIMZ - Zaheerabad was acquired an extent of Acs. 1.26 gts and Acs. 1.00 in Sy.No. 17 of patta land as per Act. 30 of 2013 and passed consent award vide Proce.No.53/NIMZ/2018 dated. 27.08.2018. The land cost paid at Rs. 7,00,000.00 (Rs. Seven Lakhs per acre). Copy of proceedings is enclosed.

2. Assigned land an extent of Acs. 174.21 gts was procured as per the consent given by the assignees in Form-I and Form - II (Affidavit and Agreement) to the DLLPC headed by the District Collector, Medak at Sangareddy. The DLLPC headed by the District Collector, Sangareddy have been negotiated with the land owners/assignees of respective village and fixed the land compensation @ Rs. 4.00 lakhs per acre for assigned lands under cultivation and Rs. 3.25 Lakhs per acre for un-cultivated (fallow) assigned lands. The Tahsildars have issued notices to the concerned assignees and issued resumption orders for taking possession while making payment through individual cheques and handed over the land to the TSIIC Ltd., through Panchanama. Further an extent of Acs. 23.20 gts of assigned land procured vide Proce.No.53/NIMZ/2018 dated. 27.08.2018 and earlier acquired land missing in Panchanama also taken possession to an extent of Acs. 3.23 gts assigned land in Sy.No. 16 of Bardipur village. The land cost paid at Rs.4,25,000.00 (Rs. Four Lakhs twenty five thousands per acre). Copy of proceedings is enclosed.

  
 ZONAL MANAGER,  
 TSIIC LTD., PATANCHERU

**Figure 8: Bardipur Village (acquired land, payment made details)**


STATEMENT SHOWING THE LAND ACQUISITION REPORT ON NIMZ - PROJECT ZAHEERABAD AS ON 31.07.2021														
VILLAGE: CHEELAPALLY			MANDAL : JHARASANGAM					DISTRICT: SANGAREDDY						
Sl.No.	Name of the Village	Private Land ( Patta )			Assigned Land			Un-Assigned Land			Grand Total			Remarks.
		Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	
1	2	3	4	5=(3+4)	6	7	8=(6+7)	9	10	11=(9+10)	12=(3+6+9)	13=(4+7+10)	14=(12+13)	15
1	Cheela - pally	257.21	193.29	451.10	102.00	16.24	118.24	59.11	0	59.11	418.32	210.13	629.05	
<p>Remarks :-1. Private (Patta) lands: An extent of Acs. 250.15 gts of patta land acquired as per G.O.Ms.No.123 Rev. (JA &amp; LA) Dept. dated. 30.07.2015. The land owners/pattedars have submitted consent in Form-I and Form-II (Affidavit and Agreement) to the District Level Land Procurement Committee headed by the District Collector, Sangareddy. The payment of land compensation was decided in the negotiation committee @ Rs. 5,65,000.00 (Rs. Five Lakhs sixty five thousands ) per acre. Accordingly the payment was made through individual cheques and the land got registered in favour of TSIIC Ltd., during the year 2016, for establishment of NIMZ Project. A copy of registered document and details of total documents are enclosed. Further the Spl. Dy. Collector, (LA) NIMZ - Zaheerabad has acquired an extent of Acs. 7.06 gts of patta land as per Act. 30 of 2013 and passed consent award vide Proce.No.23/NIMZ/2017-1 dated. 04.03.2021. The land cost paid at Rs. 9,00,000.00 (Rupees Nine Lakhs per acre). Copy of proceedings is enclosed.</p> <p>2. Assigned land an extent of Acs. 102.00 gts was procured as per the consent given by the assignees in Form-I and Form - II (Affidavit and Agreement) to the DLLPC headed by the District Collector, Medak at Sangareddy. The DLLPC headed by the District Collector, Sangareddy have been negotiated with the land owners/assignees of respective village and fixed the land compensation @ Rs. 4.00 lakhs per acre for assigned lands under cultivation and Rs. 3.25 Lakhs per acre for un-cultivated (fallow) assigned lands. Then the Tahsildars have issued notices to the concerned assignees and passed resumption orders for taking possession while making payment through individual cheques and handed over the land to the TSIIC Ltd., through Panchanama. Copy of minutes and Panchanama is enclosed.</p> <p>3. Govt. un-assigned land : As per the instructions of the District Collector, Medak at Sangareddy pending alienation orders an extent of Acs. 59.11 gts of un-assigned land advance physical possession was handed over by the Tahsildar Jharasangam to the Zonal Manager, TSIIC Ltd., Patancheru 17.11.2015 through Panchanama, for establishment of NIMZ - Project Zaheerabad. (Copy of Panchanama is enclosed).</p>														

  
 ZONAL MANAGER,  
 TSIIC LTD., PATANCHERU

**Figure 9: Cheelepally Village (acquired land, payment made details)**

STATEMENT SHOWING THE LAND ACQUISITION REPORT ON NIMZ - PROJECT ZAHEERABAD AS ON 31.07.2021

VILLAGE: YELGOI			MANDAL: JHARASANGAM					DISTRICT: SANGAREDDY.						
Sl.No.	Name of the Village	Private Land ( Patta )			Assigned Land			Un-Assigned Land			Grand Total			Remarks.
		Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	
1	2	3	4	5 = (3+4)	6	7	8 = (6+7)	9	10	11 = (9+10)	12 = (3+6+9)	13 = (4+7+10)	14 = (12+13)	15
1	Yelgoi	747.14	704.30	1452.04	791.35	135.36	927.31	37.36	0	37.36	1577.05	840.26	2417.31	
<p>Remarks :-1. Private (Patta) lands: An extent of Acs. <b>709.06</b> gts of patta land acquired as per G.O.Ms.No.123 Rev. (JA &amp; LA) Dept. dated. 30.07.2015. The land owners/pattedars have submitted consent in Form-I and Form-II (Affidavit and Agreement) to the District Level Land Procurement Committee headed by the District Collector, Sangareddy. The payment of land compensation was decided by the negotiation committee @ Rs. 5,65,000.00 (Rs. Five Lakhs sixty five thousands ) per acre. Accordingly the payment was made through individual cheques and the land got registered in favour of TSIIC Ltd., during the year 2016, for establishment of NIMZ Project. A copy of registered document is enclosed. Further the Spl. Dy. Collector, (LA) NIMZ - Zaheerabad has acquired an extent of Acs. <b>38.08</b> gts of patta land as per Act. 30 of 2013 and passed consent award vide Proce.No.139/NIMZ/2018 dated. 10.05.2019. The land cost paid at Rs. 7,00,000.00 (Rupees Seven Lakhs per acre). Copy of proceedings is enclosed.</p> <p>2. Assigned land an extent of Acs. <b>791.35</b> gts was procured as per the consent given by the assignees in Form-I and Form - II (Affidavit and Agreement) to the DLLPC headed by the District Collector, Medak at Sangareddy. The DLLPC headed by the District Collector, Sangareddy have been negotiated with the land owners/assignees of respective village and fixed the land compensation @ Rs. 4.00 lakhs per acre for assigned lands under cultivation and Rs. 3.25 Lakhs per acre for un-cultivated (fallow) assigned lands. Then the Tahsildars have issued notices to the concerned assignees and passed resumption orders for taking possession while making payment through individual cheques and handed over the land to the TSIIC Ltd., through Panchanama. Copy of Panchanama is enclosed.</p> <p>3. Govt. un-assigned land : As per the instructions of the District Collector, Medak at Sangareddy pending alienation orders an extent of Acs. <b>37.36</b> gts of un-assigned land advance physical possession was handed over by the Tahsildar Jharasangam to the Zonal Manager, TSIIC Ltd., Patancheru 17.11.2015 through Panchanama, for establishment of NIMZ - Project Zaheerabad. (Copy of Panchanama is enclosed).</p>														

  
 ZONAL MANAGER,  
 TSIIC LTD., PATANCHERU

**Figure 10: Yelgoi Village (acquired land, payment made details)**

**STATEMENT SHOWING THE LAND ACQUISITION REPORT ON NIMZ - PROJECT ZAHEERABAD AS ON 31.07.2021**

VILLAGE: MUNGI

MANDAL: NYALKAL

DISTRICT: SANGAREDDY.

Sl.No.	Name of the Village	Private Land ( Patta )			Assigned Land			Un-Assigned Land			Grand Total			Remarks.
		Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	
1	2	3	4	5 = (3+4)	6	7	8 = (6+7)	9	10	11 = (9+10)	12 = (3+6+9)	13 = (4+7+10)	14 = (12+13)	15
1	Mungi	123.00	148.22	271.22	227.18	22.33	250.11	34.31	0	34.31	385.09	171.15	556.24	

Remarks :-1. Private (Patta) lands: An extent of Acs. **104.11** gts of patta land acquired as per G.O.Ms.No.123 Rev. (JA & LA) Dept. dated. 30.07.2015. The land owners/pattedars have submitted consent in Form-I and Form-II (Affidavit and Agreement) to the District Level Land Procurement Committee headed by the District Collector, Sangareddy. The payment of land compensation was decided in the negotiation committee @ Rs. 5,65,000.00 (Rs. Five Lakhs sixty five thousands ) per acre. Accordingly the payment was paid through individual cheques and the land got registered in favour of TSIIC Ltd., during the year 2016, for establishment of NIMZ Project. A copy of registered document is enclosed. Further the Spl. Dy. Collector, (LA) NIMZ - Zaheerabad has acquired an extent of Acs. **18.29** gts of patta land as per Act. 30 of 2013 and passed consent award vide Proce.No.23/NIMZ/2017-1 dated. 04.03.2021. The land cost paid at Rs. 9,00,000.00 (Rupees Nine Lakhs per acre). Copy of proceedings is enclosed.

2. Assigned land an extent of Acs. **227.18** gts was procured as per the consent given by the assignees in Form-I and Form - II (Affidavit and Agreement) to the DLLPC headed by the District Collector, Medak at Sangareddy. The DLLPC headed by the District Collector, Sangareddy have been negotiated with the land owners/assignees of respective village and fixed the land compensation @ Rs. 4.00 lakhs per acre for assigned lands under cultivation and Rs. 3.25 Lakhs per acre for un-cultivated (fallow) assigned lands. Then the Tahsildars have issued notices to the concerned assignees and passed resumption orders for taking possession while making payment through individual cheques and handed over the land to the TSIIC Ltd., through Panchanama. Copy of Panchanama is enclosed.

3. Govt. un-assigned land: As per the instructions of the District Collector, Medak at Sangareddy pending alienation orders an extent of **Acs. 34.31** gts of un-assigned land advance physical possession was handed over by the Tahsildar Jharasangam to the Zonal Manager, TSIIC Ltd, Patancheru 17.11.2015 through Panchanama, for establishment of NIMZ - Project Zaheerabad. (Copy of Panchanama is enclosed).

  
 ZONAL MANAGER,  
 TSIIC LTD., PATANCHERU

**Figure 11: Mungi Village (acquired land, payment made details)**

STATEMENT SHOWING THE LAND ACQUISITION REPORT ON NIMZ - PROJECT ZAHEERABAD AS ON 31.07.2021

VILLAGE: RUKMAPUR			MANDAL: NYALKAL					DISTRICT: SANGAREDDY.					Remarks.	
Sl.No.	Name of the Village	Private Land ( Patta )			Assigned Land			Un-Assigned Land			Grand Total			
		Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC	Total	Acquired	To be Acquired by TSIIC		Total
1	2	3	4	5 = (3+4)	6	7	8 = (6+7)	9	10	11 = (9+10)	12 = (3+6+9)	13 = (4+7+10)	14 = (12+13)	15
1	Rukmapur	121.12	148.35	270.07	155.15	44.38	200.13	5.30	0.00	5.30	282.17	193.33	476.10	
<p>Remarks :-1. Private (Patta) lands: An extent of <b>Acs. 109.08 gts</b> of patta land acquired as per G.O.Ms.No.123 Rev. (JA &amp; LA) Dept. dated. 30.07.2015. The land owners/pattedars have submitted consent in Form-I and Form-II (Affidavit and Agreement) to the District Level Land Procurement Committee headed by the District Collector, Sangareddy. The payment of land compensation was decided by the negotiation committee @ Rs. <b>5,65,000.00</b> (Rs. Five Lakhs sixty five thousands ) per acre. Accordingly the payment was made through individual cheques and the land got registered in favour of TSIIC Ltd., during the year 2016, for establishment of NIMZ Project. A copy of registered document and documents details are enclosed. Further the Spl. Dy. Collector, (LA) NIMZ - Zaheerabad has acquired an extent of <b>Acs. 12.04 gts</b> of patta land as per Act. 30 of 2013 and passed consent award vide Proce.No.38-1/NIMZ/2018 dated. 11.01.2021. The land cost paid at Rs. <b>9,00,000.00</b> (Rupees Nine Lakhs per acre). Copy of proceedings is enclosed.</p> <p>2. Assigned land an extent of <b>Acs. 155.15 gts</b> was procured as per the consent given by the assignees in Form-I and Form - II (Affidavit and Agreement) to the DLLPC headed by the District Collector, Medak at Sangareddy. The DLLPC headed by the District Collector, Sangareddy have been negotiated with the land owners/assignees of respective village and fixed the land compensation @ <b>Rs. 4.00 lakhs</b> per acre for assigned lands under cultivation and <b>Rs. 3.25 Lakhs</b> per acre for un-cultivated (fallow) assigned lands. Then the Tahsildars have issued notices to the concerned assignees and passed resumption orders for taking possession while making payment through individual cheques and handed over the land to the TSIIC Ltd., through Panchanama. Copy of Panchanama is enclosed.</p> <p>3. Govt. un-assigned land : As per the instructions of the District Collector, Medak at Sangareddy pending alienation orders an extent of <b>Acs. 5.30 gts</b> of un-assigned land advance physical possession was handed over by the Tahsildar Nyalkal to the Zonal Manager, TSIIC Ltd., Patancheru 17.11.2015 through Panchanama, for establishment of NIMZ - Project Zaheerabad. (Copy of Panchanama is enclosed).</p>														

  
ZONAL MANAGER,  
TSIIC LTD., PATANCHERU

**Figure 12: Rukmapur Village (acquired land, payment made details)**

Acquittance roll of Payment to the Pattedars for Procurement of Patta Lands for NIMZ under G.O.Ms No.123 are given from **Figure 13** to **Figure 17**.

**Acquittance roll of Payment to the Pattedars for procurment of Patta Lands for NIMZ under G.O.Ms No.123 in Bardhipur village of Jharasangam Mandal**

Sl.No	Sy.No	Ownership/Occupancy Details		Total Valuation of Patta Land @ per Ac. Rs:5,65,000/-	TDS Structures Net Value	Check No. & Date	Pattedar Signature
		Name of the Owner/pattedar with Father/Husband Name	Area Proposed for Sale (Acres.Gts)				
1	2	3	4	5	6	7	8
1 224	15/A	A.Krupanjali W/o Balakrishna Reddy	2.34 1.17 4.11	2415375.00	0.00	465428 29.01.2016	
2 111	15/E2	A.Krupanjali W/o Balakrishna Reddy	2.34 1.17 4.11	0.00	609514.20	465429 29.01.2016	
3 222	15/A2	P.Udaya Shanker S/o Subbarao	2.34 1.16 4.10	2401250.00	0.00	465430 29.01.2016	
4 132	15/E	P.Udaya Shanker S/o Subbarao	2.34 1.16 4.10	0.00	461700.00	465431 29.01.2016	

**Figure 13: Acquittance roll of Payment for Bardhipur village of Jharasangam Mandal**

*Acquittance Roll of Cheelapally (v), Jharasangam (M)*

Sl.No	Name of the Owner/Pattedar with Father/Husband Name	Sy.No	Area proposed Sale (Acres. Gts)	Total amount of land	Cheque No. & Date	Signature of pattedar
1	2	3	4	5	6	7
28 156	Tejamma W/O Gopal	109	4.26	2627250	027194 01.4.2.2016	
29 157	Md.Ismail S/o Dastagir	110	2.00	1130000	027038 6-2-2016	
30 158	Pashmiya S/O Mohiddin Patel	112 113 149	2.21 0.16 8.20 Total: 11.17	6455125	027055 01.9.2.2016	
31 159	Mahabub Ali S/O Mohiddin Patel	112	2.21	1426625		
32 160	Arifa Begam W/O Pasha Miya	112	4.00	2260000	465427 01-29-1-2016	
33 161	Vishnu vardhan Reddy S/O Laxma Reddy	112 149	0.21 3.10 Total: 3.31	2132875	027049 8-2-2016	
34 162	Sangareddy S/O Laxma Reddy	112 149 113	0.21 3.10 Total: 3.31 0.16 Total: 3.47	2132875 226000 2358875	027050 8-2-2016	

**Figure 14: Acquittance roll of Payment for Cheelapally village of Jharasangam Mandal**

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STATEMENT SHOWING THE PATTADARS ACQUITTANCE

yelgei (v) Jharasangam (M)

Sl.no	Name of the Pattadar	Father/Husband name	Sy.no	Extent	Reg.Doc No.	Cheque no&Date.	Amount	Sign
1	Myadam Rajeshwar Guptha	Pandaiah Guptha	85/A	1.37		027177&11.0 2.2016	32,06,35	m. Rajeshwar Guptha
			85/AA1	0.24			<del>32,06,35</del>	
			85/E1	1.23			<del>32,06,35</del>	
			85/E2/2	1.23			<del>32,06,35</del>	
			to 5.27					
2	G.L.Narayana	Ramamurthy	85/AA3	0.24		027178&11.0 2.2016	82,20,750	[Signature]
			85/AA5	0.23			<del>82,20,750</del>	
			85/E1/3	1.23			<del>82,20,750</del>	
			85/E1/1	1.23			<del>82,20,750</del>	
			85/E2	1.23			<del>82,20,750</del>	
			85/E1	1.24			<del>82,20,750</del>	
			85/A	2.20			<del>82,20,750</del>	
			99/A4	0.20			<del>82,20,750</del>	
			99/A5	1.22			<del>82,20,750</del>	
			99/A6	0.20			<del>82,20,750</del>	
99/A8	2.00	<del>82,20,750</del>						
			To total - 14.22					

[Signature]  
TAHSILDAR  
Narsapur Mandal  
Medak Dist.

Figure 15: Acquittance roll of Payment for Yolgi village of Jharasangam Mandal

4. RUKMAPUR (V) ACQUITTANCE ROLL OF LAND VALUE COMPENSATION AMOUNT.




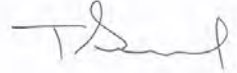
Sl. No	Name of the Vendors	Pattadar photo	Sy.No.	Extent Acres Gts	Total Sale Consideration amount in Rs.	Cheque /D.D.No.	Date	Name of the Bank/Branch	Signature of the pattedar
1 119	Sri. KOLAN BHADRARE DDD S/o YADIREDDY		45/1	2-38	2,02,27,000/-	027254	03.03.2016	IDBI Sangareddy	
			45/2A	1-19					
			45/2AA	1-19					
			45/3	0-39					
			45/4	2-00					
			46/1A	7-25					
			46/2/A	4-34					
			46/2/AA	4-33					
			46/3/A	3-25					
			46/3/AA	1-20					
46/3/E	1-20								
		Total		35-32					

Figure 16: Acquittance roll of Payment for Rukampur village of Nyalkal Mandal

ACQUITTANCE ROLL FOR PAYMENT OF COMPENSATION / LAND CONSIDERATION FOR THE PATTA LANDS PROCURED FOR ESTABLISHMENT OF NIMZ UNDER G.O.M.S NO.123 IN MUNGI VILLAGE OF NYALKAL MANDAL

L.No.	Name of the Owner / Pattedar with father/Husband Name	Photo of the Pattadar	Sy.No.	Extent Ac/Gts	Land Value	Structure value	Total Value	Cheque No. with date	Signature
1	2	3	4	5	6	7	8	9	10
1	Ramshetti S/o Chapla		150/e1	5.15	3036875.00	-	3036875.00	000096 dt:08.03.2016	



**Figure 17: Acquittance roll of Payment for Mungi village of Nyalkal Mandal**

**6 As per the Ministry's Office Memorandum F. No. 22-65/2017-IA.III dated 30<sup>th</sup>September, 2020, the project proponent, based on the commitments made during the public hearing, shall include all the activities required to be taken to fulfil these commitments in the Environment Management Plan along with cost estimates of these activities, in addition to the activities proposed as per recommendations of EIA Studies and the same shall be submitted to the ministry as part of the EIA Report**

#### **6.1 Commitments Given during Public Hearing**

- Proposed to develop green belt in an area of about 2,000 acres to abate pollution. An amount of Rs.300 crores are earmarked for the installation of pollution control systems. Similarly, an amount of Rs.40.0 crores per annum will be spent on EMP.
- Regarding provision of employment, there are Government Orders, wherein incentives were given for providing 80%, 70% and 60% employment to the local people.
- A list of all eligible candidates from the villages and thandas will be prepared. A skill development institute will be set up with the help of Academy of Skill Development including an ITI within NIMZ. Necessary skill training will be imparted to meet the requirement of industries coming up in proposed NIMZ.
- The people will be trained at the cost of TSIIC / Government and will be provided employment in the industries.

#### **6.2 Environment Management Plan**

The Environmental management plan assumed special significance in industrial areas because of the pollution potential especially in terms of Air, Water and Solid waste management. This chapter presents an overview of Environmental Management Plan.

The main objectives of Environmental Management Plan are to:

- Identify key environmental issues envisaged to be encountered during construction and operation phases of the project
- Provide guidelines for appropriate mitigation measures
- Establish systems and procedures for implementing mitigation measures
- Ensure that the mitigation measures are being implemented

- Monitor the effectiveness of mitigation measures
- Institutional framework includes the responsibilities for environmental management as well as responsibility for implementing environmental measures
- Take necessary prompt action when unforeseen impacts occur

#### **6.2.1 Training Facility**

The locals will be given training for different types of employment options as per the training suggested. The locals are literate, but many are not qualified for the skilled jobs and illiterate people will be provided with training. The training increases the possibility for acquiring the job opportunity.

#### **6.2.2 Women Empowerment**

The proposed project will enhance the status of women as they will be engaged in different types of employment opportunities. They will be given training for the job opportunities. Women earning capacity will help them in participating the decision-making process in the family as well as community level.

#### **6.2.3 Training and Awareness Programme**

This is the most important aspect of wildlife conservation. People will be educated regarding the importance of wildlife conservation through mass publicity by installing signboards, conducting audio visual classes and distributing literature in respective villages in the buffer zone.

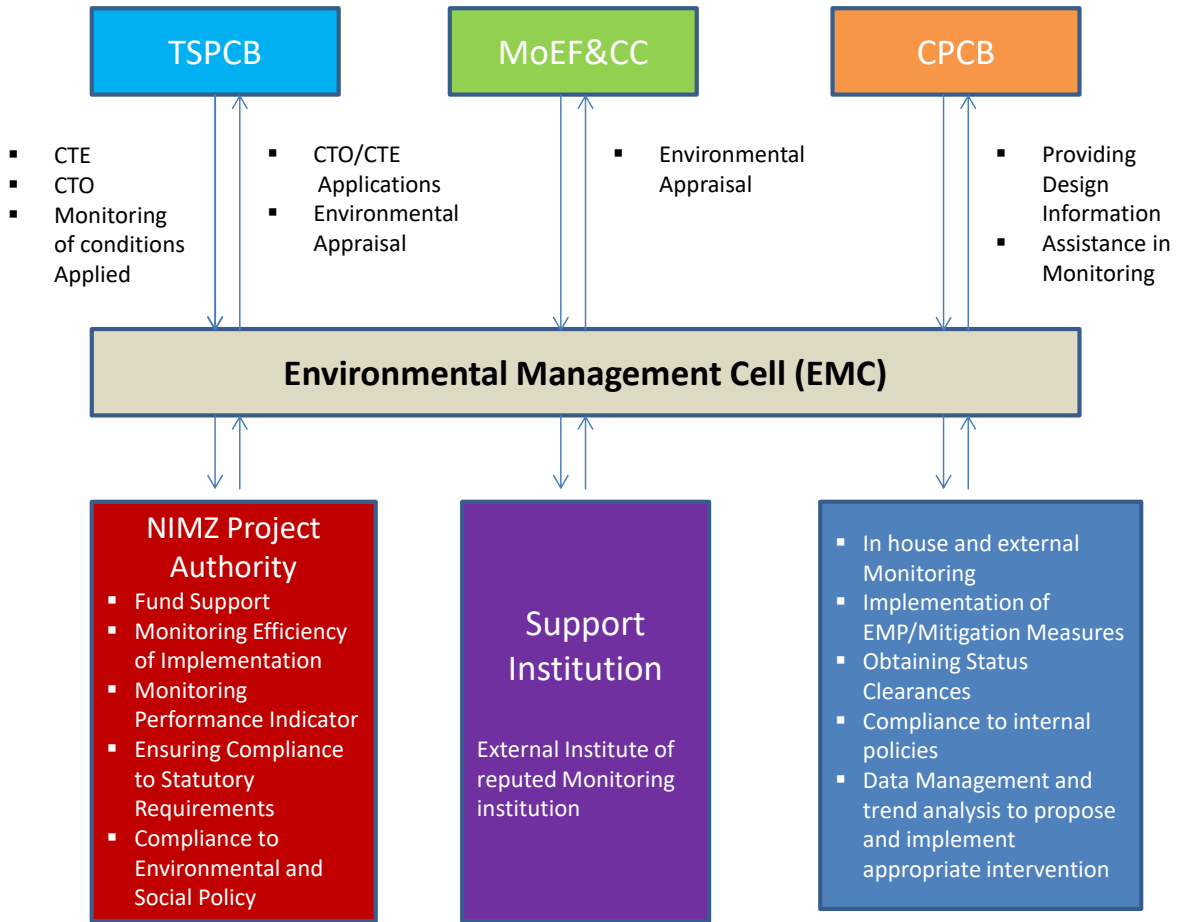
Conservation plan:

- Provision of drinking water facility for the wildlife by constructing small ponds / tanks
- Plantation of fruit bearing trees to attract avifauna which will also be useful for roosting, breeding, and hiding cover for migratory birds etc.
- Removal of weeds and promoting native grass species for effective utilization for wildlife grazing
- Education and awareness tours/ visits for school children and celebration of wildlife week

#### **6.2.4 Institutional Mechanism for Implementation of Mitigation Measures**

The effective implementation and close supervision of the environmental management to mitigate the environmental impacts, which are likely to arise due to the construction and operational phases of the NIMZ could be achieved through a suitable institutional mechanism. The proposed institutional mechanism recommended for the implementation of the mitigation measures is presented in **Figure 18**.

A proper institutional mechanism to understand and implement appropriate environmental management measures during various stages of the project is a prerequisite and has a strong bearing for the overall success of the project management. Implementation of the Environmental Management measures shall become easy once an environmentally responsible Team is in place.



**Figure 18: Implementation Arrangement**

**6.2.5 Budgetary Estimate for Environmental Management**

The budgetary estimate (Capital Cost) for Environmental Management is *INR 3000 Million (INR 300 Crores)* and the annual recurring cost is *INR 297 Million (INR 29.7 Crores)*.

**6.2.6 Employment Opportunities**

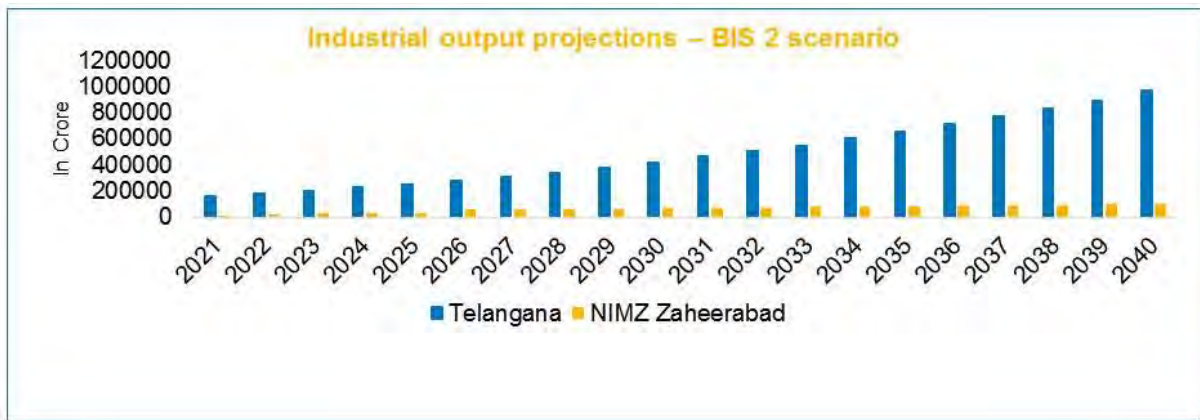
The proposed project is likely to bring one of the most significant alterations of generation of employment. The manufacturing industry will bring multitude level of employment opportunities in the region. It is expected that proposed NIMZ Zaheerabad may contribute to industrial output of ~INR ~117,570 crore and employment for ~2.66 lakh<sup>2</sup> people by 2040 as projected in **Table 7** and **Figure 19**. Investment of 44,000 crore is expected from NIMZ with complete land absorption. Industrial output of Telangana state is summing the total of the focus sectors selected for NIMZ proposed project. It does not include Industrial output of all the sectors which are present. The expected job creations will be of technical skilled labour, semi-skilled labour. and unskilled labour.

**Table 7: Employment Projections for NIMZ Zaheerabad**

Parameters	Scenario	Unit	2025	2030	2035	2040
Cumulative Employment (Direct + Indirect)	BAU	No. of people	79,486	128,578	158,639	180,485
	BIS		96,893	152,730	198,294	230,846
	BIS 2		113,925	175,925	227,892	266,466

<sup>21</sup> 1) Business As Usual (BAU) scenario, 2) Business Induced Scenario 1 (BIS 1) and 3) Business Induced Scenario (BIS 2). The BAU scenario assumes that the sector growth would be aligned to its historical growth, whereas BIS 1 scenario assumes that by undertaking certain strategic interventions, the sector can achieve a much higher growth trend in future. The BIS 2 scenario assumes that the sector would consistently achieve higher growth which will lead to higher demand for land in addition to implementation of all the proposed strategic interventions; the consultant believes that such kind of scenario is very unlikely to happen.

Parameters	Scenario	Unit	2025	2030	2035	2040
Industrial output	BAU	INR Crore	21,708	43,124	51,337	60,322
	BIS		31,402	62,718	77,360	92,429
	BIS 2		53,047	85,145	100,954	117,570



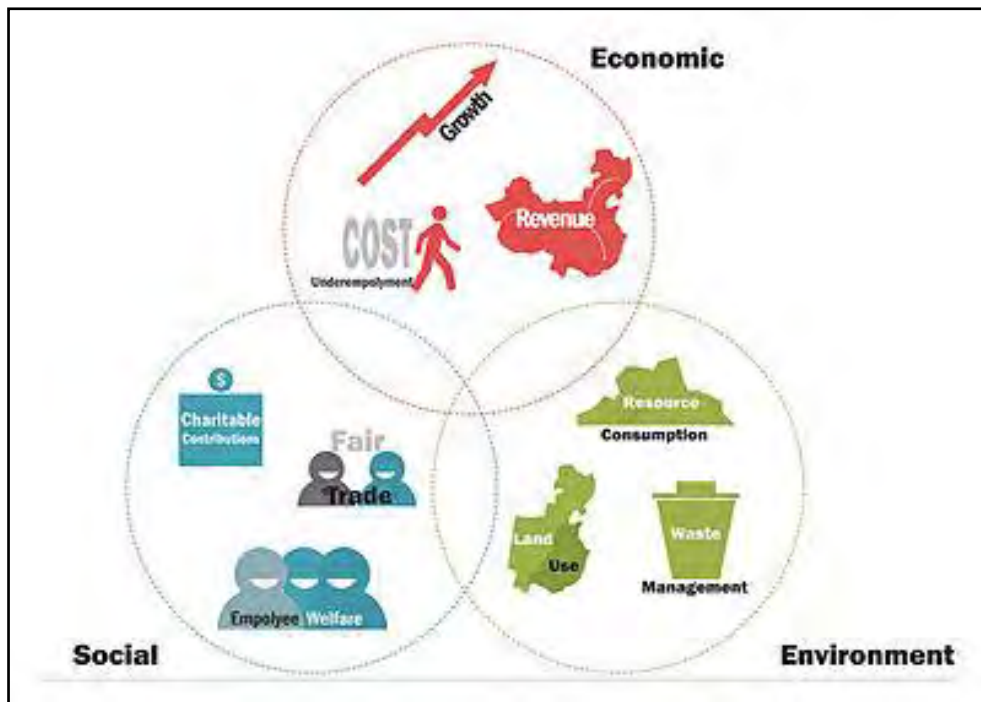
**Figure 19: Industrial output Projections**

### 6.2.7 Corporate Social Responsibility

"Corporate Social Responsibility (CSR)" referred as corporate initiative to assess and take responsibility for the company's effects on the environment and impact on social welfare. The term generally applies to companies efforts that go beyond what may be required by regulators or environmental protection groups. The primary purpose of this plan is to allow the company to meet the requirements of the Companies act 2013.

Corporate Social Responsibility (CSR) activities are the mitigation measure to curb the adverse impacts on community and environment as whole. CSR activities helps in binding the community and sustainability together if planned the right way. The planning of CSR activities involves assessing of impacts with the help of primary and secondary data.

As mentioned by United Nations Industrial Development Organization (UNIDO), CSR is generally understood as being the way through which a company achieves a balance of Economic, Environmental and Social imperatives ("Triple Bottom-Line- Approach"), while at the same time addressing the expectations of shareholders and stake holders. **Figure 20** represents the Triple Bottom Line Approach.



**Figure 20: Triple Bottom Line Approach**

#### 6.2.8 CSR Regulations

Ministry of Corporate Affairs, Government of India has notified the Section 135 of the Companies Act, 2013 along with Companies (Corporate Social Responsibility Policy) Rules, 2014 "hereinafter CSR Rules" and other notifications related thereto which makes it mandatory (with effect from April 1, 2014) for certain companies who fulfill the criteria as mentioned under Sub Section 1 of Section 135 to comply with the provisions relevant to Corporate Social Responsibility.

The CSR provisions within the Act is applicable to companies with an annual turnover of INR10,000 Million (INR 1,000 crore) and more, or a net worth of INR 5,000 Million (INR500 crore) and more, or a net profit of INR 50 million (INR 5.0 Crore) and more. The new rules, which will be applicable from the fiscal year 2014-15 onwards, also require companies to set-up a CSR committee consisting of their board members, including at least one independent director. The Act encourages companies to spend at least 2% of their average net profit in the previous three years on CSR activities. The Act lists out a set of activities eligible under CSR. Companies may implement these activities considering the local conditions after seeking board approval. The indicative activities which can be undertaken by a company under CSR have been specified under **Schedule VII of the Companies Act, 2013.**

Few highlights from the Schedule VII of the Companies Act, 2013 are:

- Surplus arising out of CSR activities will have to be reinvested into CSR initiatives, and this will be over and above the 2% figure
- The company can implement its CSR activities through the following methods:
  - Directly on its own
  - Through its own non-profit foundation set- up so as to facilitate this initiative
  - Through independently registered non-**profit organization's that have a** record of at least three years in similar such related activities
  - Collaborating or pooling their resources with other companies
- Only CSR activities undertaken in India will be taken into consideration
- Activities meant exclusively for employees and their families will not qualify

- A format for the board report on CSR has been provided which includes amongst others, activity-wise, reasons for spends under 2% of the average net profits of the previous three years and a responsibility statement that the CSR policy, implementation and monitoring process is in compliance with the CSR objectives, in letter and in spirit. This has to be signed by competent authority of the company<sup>3</sup>
- The CSR committee will be responsible for preparing a detailed plan on CSR activities, including the expenditure, the type of activities, roles and responsibilities of various stakeholders and a monitoring mechanism for such activities.
- The CSR committee can also ensure that all the kinds of income accrued to the company by way of CSR activities should be credited back to the community or CSR corpus

The new Act requires that the board of the company shall, after considering the recommendations made by the CSR committee, approve the CSR policy for the company and disclose its contents in their report and also **publish the details on the company's official website, if any, in such manner as may be prescribed.** If the company fails to spend the prescribed amount, the board, in its report shall specify the reasons.

The Activities mentioned in **Table 8** are based on the need-based assessment sample survey conducted, informal consultations, observations as well as secondary data available. The CSR activities shall be carried out by the industries attracting the CSR act.

**Table 8: CSR Activities**

S No	CSR Activities as per Schedule VII of Companies Act 2013	Project Specific Areas Identified	Project Specific Activities	Key Performance Indicators
1	Eradication of extreme hunger and poverty	<ul style="list-style-type: none"> <li>• Employment Generation</li> <li>• Water conservation</li> <li>• Clean Drinking Water Facility</li> </ul>	<ul style="list-style-type: none"> <li>• Employment Opportunities</li> <li>• Training of local people</li> <li>• Newer business opportunities</li> <li>• Promotion of health care facilities</li> <li>• Minimum wages are paid</li> <li>• Regular income</li> <li>• Clean Drinking Water Facility</li> <li>• Stakeholder Engagement</li> </ul>	<ul style="list-style-type: none"> <li>• Regular income generation</li> <li>• Health records to be maintained</li> <li>• Minimum wages record to be maintained</li> <li>• Clean drinking water usage and its maintenance</li> <li>• Stakeholders are involved at various stages</li> </ul>
2	Promotion of education	<ul style="list-style-type: none"> <li>• Promoting Higher Education</li> <li>• Vocational Skill Development Programs to be promoted</li> <li>• Increasing infrastructure of Educational Institute</li> </ul>	<ul style="list-style-type: none"> <li>• Higher education to merit students</li> <li>• ITIs to be promoted</li> <li>• Vocational Skill Development</li> <li>• Educational Building Renovations</li> <li>• Promoting education for special children</li> <li>• Teacher Training Programs</li> <li>• Stakeholder engagement</li> <li>• Grievance to be</li> </ul>	<ul style="list-style-type: none"> <li>• Students enrollment</li> <li>• Drop-out rates of students to reduce</li> <li>• Renovated educational institutions and its maintenance</li> <li>• Teachers performance for training programs</li> <li>• Enrollment of special students</li> <li>• Feedbacks to be recorded</li> <li>• Stakeholders are involved ta various</li> </ul>

<sup>3</sup> <http://ssijmar.in/vol3no6/vol3%20no6.10.pdf>

S No	CSR Activities as per Schedule VII of Companies Act 2013	Project Specific Areas Identified	Project Specific Activities	Key Performance Indicators
			addressed	<ul style="list-style-type: none"> <li>stages</li> <li>Grievance are addressed</li> </ul>
3	Gender equity and women empowerment	<ul style="list-style-type: none"> <li>Promoting Women Education</li> <li>Promoting Training for Women</li> </ul>	<ul style="list-style-type: none"> <li>Promoting girls higher education</li> <li>More employment-oriented programs for women</li> <li>Training to be provided for women-oriented programs</li> </ul>	<ul style="list-style-type: none"> <li>Women participation in decision making at various levels</li> <li>Girls enrollment and drop-out rates to be maintained</li> <li>Feedbacks to be recorded</li> <li>Grievance to be addressed</li> </ul>
4	Combating HIV-AIDS, malaria and other diseases	<ul style="list-style-type: none"> <li>Promoting Health Services</li> <li>Promoting Health camps</li> <li>Induced Participation Among People</li> </ul>	<ul style="list-style-type: none"> <li>Promoting health camps</li> <li>Community check-ups camps</li> <li>Awareness Camps</li> </ul>	<ul style="list-style-type: none"> <li>Medical Records to be maintained</li> <li>Medical Checkups feedbacks to be recorded</li> <li>Feedbacks to be recorded</li> </ul>
5	Reducing child mortality and improving maternal health			
6	Contribution to Prime Minister's relief fund and other such state and central funds	<ul style="list-style-type: none"> <li>District Collectors (DC) Fund for CSR activities</li> <li>Companies can deposit their CSR fund in DCs' fund</li> <li>Fund can be allocated to relief fund projects also</li> </ul>	<ul style="list-style-type: none"> <li>DC CSR Fund for promotion of activities</li> <li>Promoting government schemes such as Swatch Bharat Abhiyan</li> <li>PM or state relief fund for disaster management</li> </ul>	<ul style="list-style-type: none"> <li>CSR activities to be suggested</li> <li>PM relief fund requires funding</li> </ul>
7	Employment enhancing vocational skills	<ul style="list-style-type: none"> <li>Training to the Locals</li> <li>Vocational Skill Development Programs to be promoted</li> <li>Vocational Skill Development Programs to be promoted</li> </ul>	<ul style="list-style-type: none"> <li>Training to be provided for employment enhancing skills</li> <li>Promoting ITIs</li> <li>Vocational Skill Development</li> </ul>	<ul style="list-style-type: none"> <li>Records of enrollment and drop-outs</li> <li>Record of trained <b>personnel's employment</b> status</li> <li>Increase in number of seats in vocational skill development institutes</li> <li>Feedbacks to be recorded</li> <li>Grievance to be addressed</li> </ul>
8	Social business project	<ul style="list-style-type: none"> <li>Promoting self-sustainable business opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Promote Self Help Groups by women</li> </ul>	<ul style="list-style-type: none"> <li>Records of data to be maintained</li> <li>Feedbacks to be recorded</li> <li>Grievance to be addressed</li> </ul>

S No	CSR Activities as per Schedule VII of Companies Act 2013	Project Specific Areas Identified	Project Specific Activities	Key Performance Indicators
9	Environmental Sustainability	<ul style="list-style-type: none"> <li>Sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>Optimum use of water resources and other available resources</li> <li>Water Conservation Programs</li> <li>Promoting sustainable development</li> <li>Waste segregation &amp; its appropriate disposal</li> <li>Green belt development</li> <li>Development of Cultural and Heritage Sites</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance of records of increase in available water resources</li> <li>Water Conservation programs to be promoted among industries as well domestic level locally</li> <li>Maintenance of waste segregation and its disposal</li> <li>Places of interest to be developed</li> </ul>

The following are the areas/activities identified under Corporate Social Responsibility

- Support for Female Literacy
- Support to Swach Bharat Abhiyan
- Skill development training programme
- Support to Enhancing the School and Collage Lab and Library facilities
- Promotion of Sports among youth
- Support to Solid waste Management Programme
- Support to Forest Department for wildlife conservation plan
- Support to refurbishment of medical facilities construction of ward in the hospital
- Support to development of infrastructure facilities for educational institutes, medical facilities, purchasing of ambulance
- Training /Awareness to farmers in the nearby Areas to increase Crop Yield
- Contribution to Disaster Management Fund
- Support to improvement of roads to villages
- Support to drinking water facilities and supply network in the project villages

The activities and budget will be allocated as per district administration directives. The CSR activities will be taken up in a phased manner as per project development activities.

## **7 Detailed Risk Assessment and Management of the project shall be prepared and submitted.**

### **7.1 Industries proposed**

The proposed NIMZ will have the following sub sectors of the industries

- Automobile
- Electrical Machinery
- Machinery
- Transport equipment
- Food Processing
- Metals
- Non-metallic minerals

## 7.2 Hazard Identification

### 7.2.1 Plant/Industry Hazards

The various types of hazards in the plant/industries are as follows

- Fire Hazard: Flammable chemicals are used in the manufacturing process of the chemicals. So it is susceptible to catch fire either at the places of storage, transportation and processing if source of ignition is available. These chemical fires may cause to catastrophic effects. The sudden development of pressure ruptures the container and causes shock waves which cause the structure damage and outburst of reaction vessel. Fire is considered very dangerous if occurs in uncontrolled manner. It should be clearly understood that when a liquid is used having flash point below the normal ambient temperature, it could, in suitable circumstances, liberate a sufficient quantity of vapour to give rise to flammable mixtures with air
- Explosion Hazard: Release of energy in a rapid and uncontrolled manner gives rise to explosion. Extra care shall be taken by providing rupture disc, pressure release valve and temperature controller
- Corrosion Hazard: Most corrosive substances will produce chemical burns, while certain chemical produce deep ulceration. Other has detailing effect on skin and may cause dermatitis. This has adverse effects on weakening the strength of material in contact.
- Other Hazards:
  - Other toxic hazards due to acids/other toxic spillages (mainly limited to spillage area). The spillage if comes in contact with metal parts will produce hydrogen which is highly flammable gas. Any person moving in area and getting splash will get the injury. In addition, the spillage will cause pollution problem. The spillage is to be collected and neutralized for toxic contents before disposal.
  - Hazards due to individual soft spots like walking casually and not noticing a pit and falling or colliding/stumbling or slipping (not noticing a wet place, etc.).

### 7.2.2 Type of Industry and Chemicals to be used in Production

Some of the major hazards identified from the sample industries are as follows:

#### **Automobile**

The assembly of motor vehicles can potentially create a number of E&S risk issues. Most of these risks are associated with substances which are used during the manufacturing process as well as hazards arising from waste and emissions. Automobile/Aero defence manufacturing industry involves organic solvents and significant volatile organic compound (VOC) emissions. Hazardous chemicals and process gases may be used in the assembly process of motor vehicles

#### **Electrical Machinery**

The semiconductors and electronics manufacturing process may include the use of numerous potentially hazardous chemicals. Metallic powders also may be present in the manufacture of passive components and magnetic devices.

A sample list includes: acetone, ammonia, ammonium hydroxide, arsine, boron trifluoride, carbon dioxide chlorine, chlorine trifluoride, diborane, dichlorosilane, disilane, fluorine, gallium arsenide, germane, hydrochloric acid, hydrofluoric acid, hydrogen, indium phosphide, methane, nitric acid, nitric oxide, nitrogen fluoride, nitrous oxide, ozone, phosphorus oxychloride, phosphine, phosphoric acid, silane, sulfuric acid, tetrafluoro methane, trichlorosilane, trimethyl arsenic, and trimethyl Indium etc. Proper mitigation measures have to be followed to reduce the risks associated with handling of these chemicals.

#### **Food and Agro Processing Industry**

Anhydrous ammonia is a popular refrigerant in food processing and manufacturing facilities. Especially in meat processing plants and other food processing plant it is found to be used. Despite that ubiquity, ammonia poses numerous risks to workers. Those hazards include:

- **Corrosive:** Ammonia can cause damage to the skin, eyes, and lungs
- **Flammable:** Ammonia can be lethal at concentrations of roughly 15% to 28% by volume in air
- **Explosive:** If released in enclosed spaces with a source of ignition present, ammonia can cause life-threatening explosions

Food processing and manufacturing plants using ammonia as refrigerant must label all pipes that transport ammonia and hazard mitigation measures to be followed<sup>4</sup>.

### **Metals**

Chemicals used during metal product manufacturing, in particular during sintering, surface preparation and finishing and also contact with allergenic elements (e.g. chromium, nickel, lead, and beryllium) will cause dermal hazards. Fumes containing metals, metal oxides, organic and inorganic compounds, particulates, dust, and VOC will cause inhalation hazards.

Certain welding techniques (including all the arc, plasma, laser and electron beam welding methods) use significant energy and generate radiation that may be dangerous for the operator. Another source of radiation involves X-ray stations for continuous monitoring of product quality<sup>5</sup>.

### **Non-metallic minerals (except glass)**

Cement dust is a particularly alkaline & irritant dust and might therefore be considered to pose a greater risk of respiratory tract damage than many other poorly soluble dusts (generically often referred to as “low toxicity dusts”).

Hazardous properties relating to these substances are many and varied and include flammability, combustion potential, toxicity, corrosive potential, and oxidising potential. Chemicals with such properties should be labelled with the appropriate internationally recognised hazard symbol. Some chemicals may only possess a hazard potential if they could react with other compounds.

Inadequate control or accidental releases of hazardous substances on site or in transit may result in significant environmental impacts in relation to soil, groundwater and surface water contamination and occupational health and safety, e.g., disposal of empty drums and packaging of fuel and chemicals<sup>6</sup>.

#### **7.2.2.1 Hazards during Construction Phase**

**Mechanical Hazards:** Mechanical hazards during the construction phase arise due to the moving parts in the machinery, especially the belts and bolts of the construction equipment, which are heavy and pose a threat to the work personnel. Other hazards include falling (during working at heights), falling objects like handheld tools, etc., failure of slips and traps created for scaffolding, and due to faulting of electrical equipment.

**Transportation Hazards:** The planning of access/ egress to the construction site also plays a significant role in minimizing the associated hazards such as vehicles collision.

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<sup>4</sup> <https://www.maintworld.com/HSE/Hazards-in-the-Food-Processing-Industry#:~:text=Throughout%20the%20United%20States%2C%20anhydrous,and%20other%20food%20processing%20plants.pdf>

<sup>5</sup> <https://www.ifc.org/wps/wcm/connect/c83d65a2-7332-40bd-84d2-6e46d8ac9632/Final%2B-%2BMetal%252C%2BPlastic%252C%2BAnd%2BRubber%2BProducts%2BMnfg.pdf?MOD=AJPERE S&CVID=jkD2Cqr&id=1323153287593>

<sup>6</sup> <https://www.ebrd.com/downloads/policies/environmental/chemical/chemicals-allied.pdf>

**Physical Hazards:** The noise and vibrations generated during the construction phase may affect the worker's health, hinder effective communication, and may jeopardise sensitive organs. In addition to noise and vibration, hot works also pose a considerable hazard to the workers.

**Storage and handling of hazardous materials:** During the construction period, storage of hazardous materials like fuel for the engines, lubricants, paints, and other flammable materials are likely to pose a fire and explosion risk. Due care shall be taken in locating these materials away from the work place, free of any influence of temperature or sparks or fire. Proper wiring of the electrical appliances like lights, exhausts, etc., would be made to ensure that there are no live wires causing short circuits to ignite these materials.

#### 7.2.2.2 Hazards during Operation

The proposed NIMZ will house different type of industries and hazards associated during operation phase are discussed below:

**Material Hazards:** During operation, various types of raw materials, products and other materials will be handled at industrial units. Industrial plants deal with materials, which are generally hazardous in nature by virtue of their intrinsic chemical properties or their operating temperatures or pressures or a combination of these. Fire, explosion, toxic release, or combinations of these, are the hazards associated with industrial plants using hazardous chemicals. Some of these materials can be flammable, explosive, toxic, or corrosive etc. Hazardous substances may be classified into three main classes namely, flammable substances, unstable substances, and toxic substances.

- Flammable substances require interaction with air for their hazard to be released. Under certain circumstances the vapours arising from flammable substances when mixed with air may be explosive especially in confined spaces. However, if present in sufficient quantity such clouds may also explode in open air.
- Unstable substances are liquids or solids, which may decompose with such violence, so as to give rise to blast waves.
- Toxic substances are dangerous and can cause substantial damage to life when released into the atmosphere at certain concentrations.

The ratings for a large number of chemicals based on flammability, reactivity and toxicity are given in NFPA (National Fire Protection Association) Codes and Material Safety Data Sheets MSDS). The proposed industries shall maintain the records of NFPA classification and hazards due to exposure of materials to be handled.

**Mechanical and Physical Hazards:** Injuries may be caused to working personnel due to the operations like cutting, lifting, and rotating machinery. Lifting and carrying heavy or awkwardly shaped objects, such as bags, can result in manual handling injuries.

**Handling, Storage and Transportation Hazards:** Proposed NIMZ will involve handling of various materials in the form of Solid, Liquid and Gases which are required for the operations. The individual industry may have material transport from the nearest road/rail route. The hazards related to material transport may be due to accidents of vehicles, failure in mechanical transmission components etc., The Handling hazards include:

- Insufficient knowledge on hazardous nature of chemical in use leading to inappropriate handling of the chemical.
- Failure to use appropriate control measures and Personal Protective Equipment (PPE).
- Use of expired/ worn Personal Protective Equipment (PPE's).
- Failure of liquid/solid or gas delivery tools.
- Using of container with narrow opening for a process that evolves heat and/or gases.
- Mixing of oxidizing agents with flammable / combustible substances, etc.

Storage and Handling of Chemicals: A storage and Handling of Hazardous chemical is inevitable, they carry inherent characteristic risk to the employees due to the properties of chemicals such as toxicity and flammability. Chemicals are to be handled in standard containers like MS, HDPE, GI Drums, PVC Carboys, etc. All the chemicals, if any are to be arranged and stored in accordance with their **compatibility, dry, well ventilated, with flameproof electrical equipment's and lighting.** All the chemicals are to be provided with identification labels. Eye wash/Drench shower is to be provided at a strategic location for emergency purpose. Chemical Safety Data Sheets and handling procedure, First Aid measures are to be prepared and displayed for information and safety of the working personnel.

**Plant/Industry Hazards:** The various types of hazards in the plant/industries are as follows

- Fire Hazard: Flammable chemicals are used in the manufacturing process of the chemicals. So it is susceptible to catch fire either at the places of storage, transportation and processing if source of ignition is available. These chemical fires may cause to catastrophic effects. The sudden development of pressure ruptures the container and causes shock waves which cause the structure damage and outburst of reaction vessel. Fire is considered very dangerous if occurs in uncontrolled manner. It should be clearly understood that when a liquid is used having flash point below the normal ambient temperature, it could, in suitable circumstances, liberate a sufficient quantity of vapour to give rise to flammable mixtures with air
- Explosion Hazard: Release of energy in a rapid and uncontrolled manner gives rise to explosion. Extra care shall be taken by providing rupture disc, pressure release valve and temperature controller
- Corrosion Hazard: Most corrosive substances will produce chemical burns, while certain chemical produce deep ulceration. Other has detailing effect on skin and may cause dermatitis. This has adverse effects on weakening the strength of material in contact.
- Electric Hazard: Electrical power is the main driving force of the industry. There is a potential hazard in electrical equipment like electric cables, motors, heaters, lights, electrical major equipment/ machinery, operations, welding, motors, and heavy lift devices, cabling, human intervention (short circuit possibility), maintenance work (due to machinery breakdown etc.), plant lighting related electrical hazards etc. there will be a fire hazard due to sparks and short circuits in the electrical systems. Static electricity may develop during the transfer of solvent from one vessel to another vessel and may leads to sparks, if there is no proper earthing system, the electrical sparks will act as ignition source for flammable chemicals.
- Other Hazards:
  - Other toxic hazards due to acids/other toxic spillages (mainly limited to spillage area). The spillage if comes in contact with metal parts will produce hydrogen which is highly flammable gas. Any person moving in area and getting splash will get the injury. In addition, the spillage will cause pollution problem. The spillage is to be collected and neutralized for toxic contents before disposal.
  - Hazards due to individual soft spots like walking casually and not noticing a pit and falling or colliding/stumbling or slipping (not noticing a wet place, etc.).

The indicative list of major plant/industrial hazards and their details are given in **Table 9**.

**Table 9: Details of Indicative Major Plant/Industrial Hazards**

Plant/Industrial Hazards	Details
Leaks/ruptures	Fracture: Breaking open of a containment system by the propagation of a crack
	Puncture: a perforation or hole in a containment system as a result of impact
	Relief device stuck open
	Seal/gasket/flange failure
	Corrosion/erosion
	Flow surge or hydraulic hammer
Incorrect actions or inactions by people	Operator opens a valve, etc.
Exceeding process limits	Over/under pressuring

Plant/Industrial Hazards	Details
	Over heating
	Over cooling
	Over filling
Control system failure	Sensors
	Logic solver
	Final elements
	Communication interface
	Field wiring
	Power source
Reactivity	Runaway reactions
	Air ingress
	Inadvertent mixing of chemicals
Structural Failure	Equipment support
	Foundations/floor
	Cyclic loading
	Pressure fluctuations
Utility failure	Electricity
	Instrument air
	Plant nitrogen
	Cooling water
Human external events	Vehicle impacts
	Dropped objects from lifting devices
Knock-on effects	Incident in adjacent processes
	Incident with process
Multiple failure	Combinations of equipment failures
	Combinations of human failure
	Combinations of external events
	Combination of any of these

### 7.2.2.3 Hazards due to Natural Calamities

In case of natural disasters such as earthquake, flood etc., occurring at the proposed NIMZ, may result in fire and explosions/toxic gas release due to failure of equipment. The damage consequences will be similar whether the damage is because of man-made disaster or natural calamity for the worst cases.

### 7.2.3 Damage Criteria

The nature of damage and extent of damage resulting from an accidental release of a chemicals in proposed NIMZ depends on several factors like nature of material, storage conditions, release conditions, atmospheric conditions etc.

The accidental release of hazardous chemicals during the operation of industries in the proposed NIMZ leads to subsequent events, which actually cause the damage. The damages are caused by

- Heat radiation
- Over pressure effects from explosions and
- Toxic effects

These events are applicable in case of any industrial units handling flammable materials and Toxic materials.

#### 7.2.3.1 Thermal Radiation

The damages that may be caused due to heat radiation effect are given in **Table 10**.

**Table 10: Damage due to Incident Radiation**

Radiation level within the Fire (kW/m <sup>2</sup> )	Degree of injury
37.5	Severe damage to unprotected plant

Radiation level within the Fire (kW/m <sup>2</sup> )	Degree of injury
12.5	Initiation of secondary fires
4.0	Injury to people
1.75	Pain threshold reached after 60 seconds
0.7	Exposed skin reddens and burns on prolonged exposure

### 7.2.3.2 Over Pressure

When a flammable vapour cloud ignites, under certain conditions it may result in deflagration thus causing damage due to over pressure effects. The damage depends on the level of over pressure as indicated in **Table 11**.

**Table 11: Effect of Over Pressure**

Over pressure	Damage
0.3 bar	Heavy structure damage
0.1 bar	Repairable structure damage
0.03 bar	Major glass damage
0.01 bar	10% glass damage

### 7.2.3.3 Impact of Toxic Effects

A material may be considered as toxic or poisonous, when a small quantity can cause injurious effect on an average normal adult human being. There are several ways of expressing the severity of the toxic nature of the chemicals. These are:

- TLV - Threshold Limit Value.
- IDLH - Immediately dangerous to life and health
- LD<sub>LO</sub> - Lethal dose low
- LD<sub>50</sub> -Median lethal dose

The Immediately Dangerous to Life and Health (IDLH) value which is a limit for personal exposure to a substance defined by the United States National Institute for Occupational Safety and Health (NIOSH), normally expressed in parts per million (ppm) can be considered as the reference concentration.

### 7.2.4 Typical Failure Frequencies

The hazardous material release scenarios can be broadly divided into two categories (i) catastrophic failures which are of low frequency and (ii) ruptures and leaks which are of relatively high frequency. Vapour or liquid releases from failure of gasket, seal and rupture in pipelines and storage tanks fall in second category whereas catastrophic failure of storage tanks and full bore rupture of pipelines, etc. fall into first category. Typical failure frequencies are given in **Table 12**.

**Table 12: General failure frequencies**

Item	Mode of failure	Failure Frequencies
Atmospheric vessel	Serious leak catastrophic	1x10 <sup>-4</sup> /yr 5x10 <sup>-6</sup> /yr
Pressure vessel	Serious leak	1.0 x 10 <sup>-5</sup> /yr
	Catastrophic	3x10 <sup>-6</sup> /yr
Process pipe lines		
=50 mm dia	Full bore rupture	8.8 x 10 <sup>-7</sup> /m.yr
	Significant leak	8.8 x10 <sup>-6</sup> /m.yr
> 50 mm = 150 mm dia	Full bore rupture	2.6 x 10 <sup>-7</sup> /m.yr
	Significant leak	6x10 <sup>-5</sup> /m.yr
> 150 mm dia	Full bore rupture	8.8 x10 <sup>-8</sup> /m.yr
	Significant leak	6x10 <sup>-6</sup> /m.yr
Hoses	Rupture	3.5 x10 <sup>-2</sup> /yr

Item	Mode of failure	Failure Frequencies
Check valve	Failure on demand	1x10 <sup>-4</sup> /demand
Motor operated valve	Failure on demand	1x10 <sup>-3</sup> /demand
Flange	Leak	3 x10 <sup>-4</sup> /yr
Gasket failure	Failure	5 x 10 <sup>-5</sup> /yr
Pump seal	Leak	5 x10 <sup>-3</sup> /yr
Process Safety Valve	Lifts heavily	4 x10 <sup>-3</sup> /yr
	Blocked	1 x10 <sup>-3</sup> /yr
	Lifts lightly	2 x10 <sup>-2</sup> /yr

Ref: 1) Loss Prevention in the Process Industries -Frank P.lees.Vol.2 & 3, 2<sup>nd</sup> edition.

2) TNO communication

### 7.2.5 Software Used (ALPHA) for Consequence Analysis

ALPHA (Areal Locations of Hazardous Atmospheres) is a modelling program that estimates threat zones associated with hazardous chemical releases, including toxic gas clouds, fires, and explosions. ALPHA is developed jointly by the National Oceanic and Atmospheric Administration's Office of Response and Restoration and the Environmental Protection Agency's Office of Emergency Management. ALPHA can model four types of sources:

- **Direct:** chemical release directly into the atmosphere (using user-determined rate/amount and bypassing ALPHA's source calculations). Toxic, Fire (HRDD<sup>7</sup>) and Explosion Scenarios (OPDD<sup>8</sup>) can be modelled.
- **Puddle:** chemical has formed a liquid pool. Under evaporating puddle scenario, Toxic, Fire and Explosion Scenarios can be modelled. Under Burning scenario (pool Fire) Fire (HRDD) can be modelled.
- **Tank:** chemical is escaping from a storage tank. Under not burning scenario Toxic, Fire and Explosion Scenarios can be modelled. Under burning scenario, Jet Fire/Pool Fire (HRDD) can be modelled. In BLEVE scenario, Fire Ball and pool Fire (HRDD) Scenario can be modelled.
- **Gas Pipeline:** chemical is escaping from a ruptured gas pipeline. Under not burning scenario Toxic, Fire and Explosion Scenarios can be modelled. under burning scenario, Jet Fire/Pool Fire (HRDD) can be modelled

### 7.2.6 Input Meteorological Parameters

Following site input parameters considered for consequence analysis:

Wind Speed	2 m/s
Wind direction	SW
Air Temperature	30°C
Stability Class	F
Relative Humidity	50%

### 7.2.7 Consequence Analysis

#### 7.2.7.1 Acetone

##### Chemical data

- Chemical Name: ACETONE
- CAS Number: 67-64-1

<sup>7</sup> Heat Radiation Damage Distance

<sup>8</sup> Over Pressure Damage Distance

- Molecular Weight: 58.08 g/mol
- AEGL-1 (60 min): 200 ppm; AEGL-2 (60 min): 3200 ppm; AEGL-3 (60 min): 5700 ppm
- LEL: 26000 ppm UEL: 130000 ppm
- Ambient Boiling Point: 129.3° F
- Vapor Pressure at Ambient Temperature: 0.37 atm
- Ambient Saturation Concentration: 402,387 ppm or 40.2%

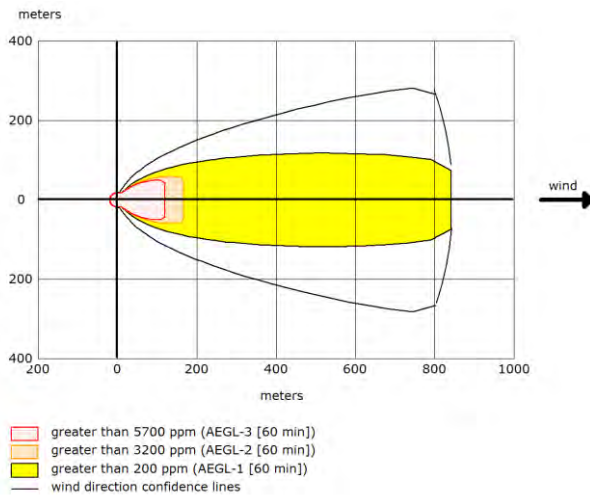
**Scenario I: Vapor Cloud Explosion**

Source Strength

- Leak from hole in vertical cylindrical tank
- Flammable chemical escaping from tank (not burning)
- Circular opening diameter: 10 centimeters; Opening is 20 centimeters from tank bottom
- Release Duration: ALOHA limited the duration to 1 hour
- Max Average Sustained Release Rate: 259 kg/min
- Total Amount Released: 12,576 kilograms
- Puddle spread to a diameter of 46 m

Toxic area of vapor cloud

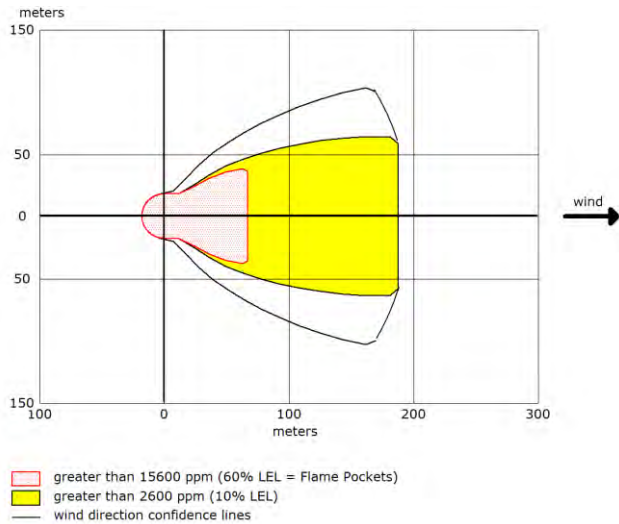
Model Run: Heavy gas; Red:121 meters --- (5700 ppm = AEGL-3); Orange: 167 meters --- (3200 ppm = AEGL-2); Yellow: 842 meters --- (200 ppm = AEGL-1)



**Figure 21: Acetone: Toxic Area of Vapor Cloud**

Flammable area of vapor cloud

Model Run: Heavy Gas; Red: 67 meters --- (15600 ppm = 60% LEL = Flame Pockets); Yellow: 188 meters --- (2600 ppm = 10% LEL)



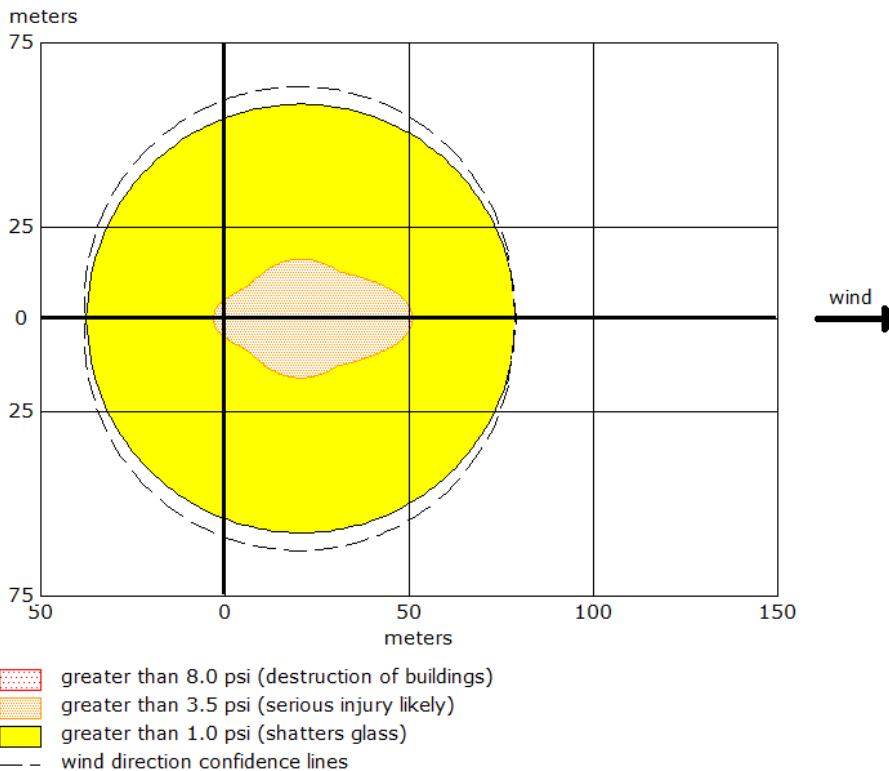
**Figure 22: Acetone: Flammable Area of Vapor Cloud**

Blast area of vapor cloud

Threat Modelled: Overpressure (blast force) from vapor cloud explosion

Type of Ignition: Ignited by spark or flame

Model Run: Heavy Gas; Red: LOC was never exceeded --- (8.0 psi = destruction of buildings); Orange: 51 meters --- (3.5 psi = serious injury likely); Yellow: 79 meters --- (1.0 psi = shatters glass)



**Figure 23: Acetone: Blast area of vapor cloud**

**Scenario II: Leaking Tank, Chemical is burning and forms a Pool Fire**

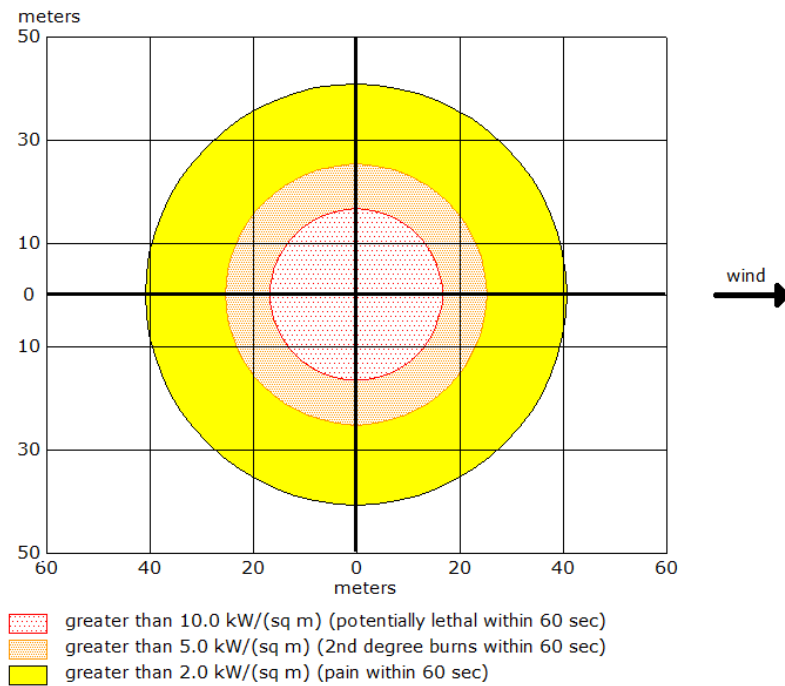
Source Strength

- Leak from hole in vertical cylindrical tank
- Flammable chemical is burning as it escapes from tank

- Circular opening diameter: 10 centimeters; Opening is 20 centimeters from tank bottom
- Max Burn Rate: 362 kilograms/min
- Total Amount Burned: 13,529 kilograms
- Puddle spread to a diameter of 12.3 meters

Threat Modelled: Thermal radiation from pool fire

Red: 17 meters --- (10.0 kW/(sq m) = potentially lethal within 60 sec); Orange: 25 meters --- (5.0 kW/(sq. m) = 2nd degree burns within 60 sec); Yellow: 41 meters --- (2.0 kW/(sq m) = pain within 60 sec)



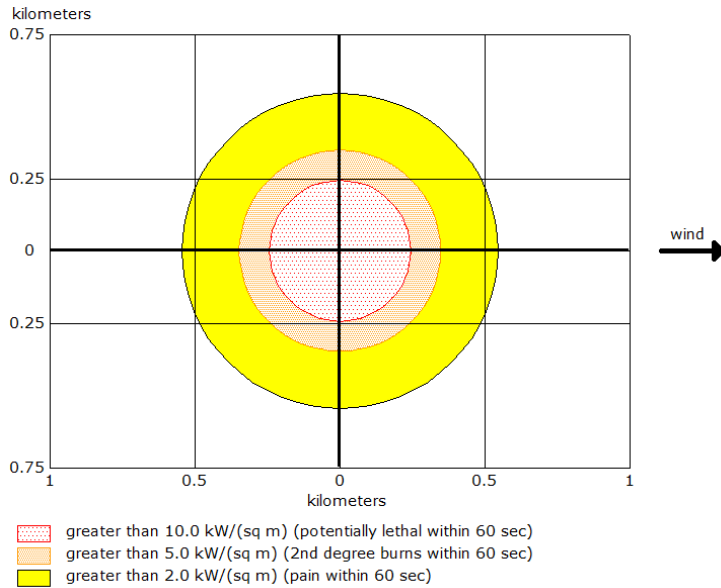
**Figure 24: Acetone: Thermal Radiation from Pool Fire**

**Scenario III: BLEVE, TANK EXPLODES & CHEMICAL BURNS IN A FIREBALL**

Source Strength

- BLEVE of flammable liquid vertical cylindrical tank
- Fireball Diameter: 140 meters      Burn Duration: 10 seconds

Threat Modelled: Thermal radiation from fireball; Red: 244 meters --- (10.0 kW/(sq m) = potentially lethal within 60 sec); Orange: 348 meters --- (5.0 kW/(sq m) = 2nd degree burns within 60 sec); Yellow: 545 meters --- (2.0 kW/(sq m) = pain within 60 sec)



**Figure 25: Acetone- BLEVE**

7.2.7.2 Ethylene Glycol Propyl Ether

**Chemical data**

- Chemical Name: ETHYLENE GLYCOL PROPYL ETHER
- CAS Number: 2807-30-9
- Molecular Weight: 104.15 g/mol
- LEL: 12600 ppm UEL: 158000 ppm
- Ambient Boiling Point: 129.3° F
- Vapor Pressure at Ambient Temperature: 0.0044 atm
- Ambient Saturation Concentration: 4,718 ppm or 0.47%

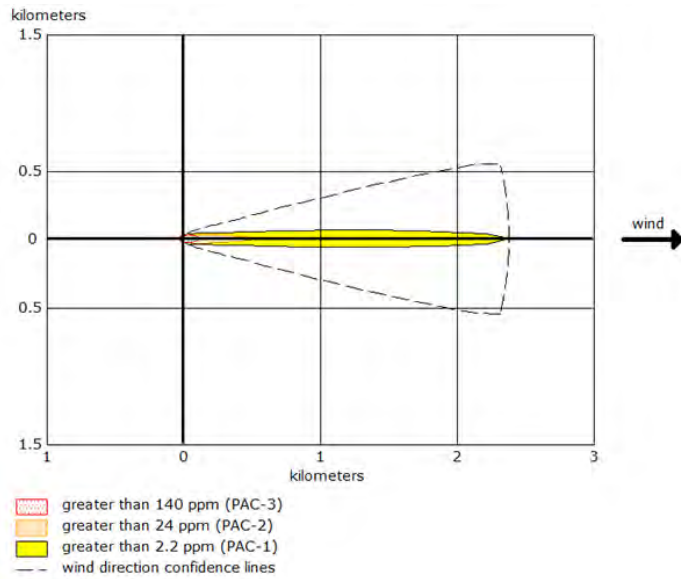
**Scenario I: Vapor Cloud Explosion**

Source Strength

- Leak from hole in vertical cylindrical tank
- Flammable chemical escaping from tank (not burning)
- Circular opening diameter: 10 centimeters; Opening is 20 centimeters from tank bottom
- Release Duration: ALOHA limited the duration to 1 hour
- Max Average Sustained Release Rate: 20.9 kg/min

Toxic area of vapor cloud

Model Run: Heavy gas; Red: 98 meters (140 ppm = PAC-3); Orange: 515 meters (24 ppm = PAC-2); Yellow: 2.4 kilometres (2.2 ppm = PAC-1)



**Figure 26: Ethylene Glycol Propyl Ether: Toxic Area of Vapor Cloud**

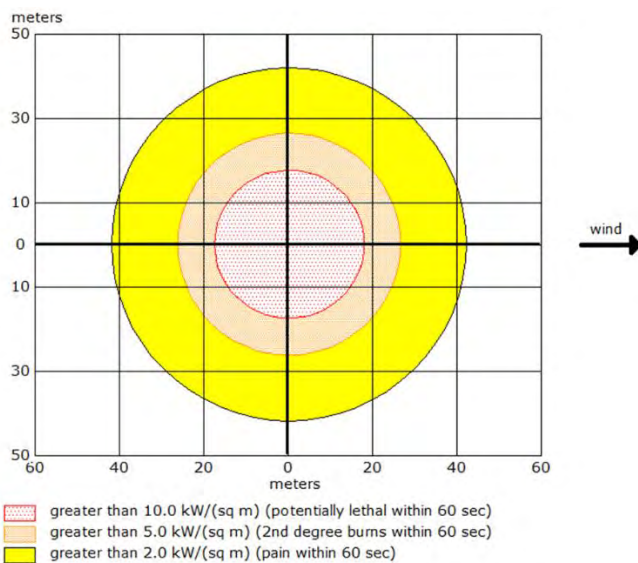
**Scenario II: Leaking Tank, Chemical is burning and forms a Pool Fire**

Source Strength

- Leak from hole in vertical cylindrical tank
- Flammable chemical is burning as it escapes from tank
- Circular opening diameter: 10 centimetres; Opening is 20 centimetres from tank bottom
- Max Burn Rate: 389 kilograms/min
- Total Amount Burned: 15,635 kilograms
- Puddle spread to a diameter of 14.2 meters

Threat Modelled: Thermal radiation from pool fire

Red: 18 meters (10.0 kW/(sq m) = potentially lethal within 60 sec); Orange: 27 meters (5.0 kW/(sq m) = 2nd degree burns within 60 sec); Yellow: 42 meters (2.0 kW/(sq m) = pain within 60 sec).



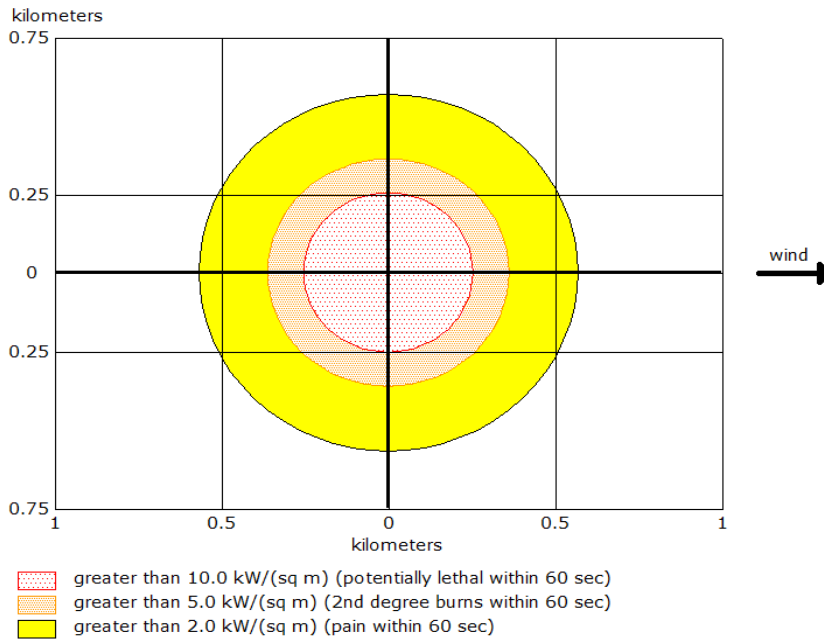
**Figure 27: Ethylene Glycol Propyl Ether: Thermal Radiation from Pool Fire**

**Scenario III: BLEVE, TANK EXPLODES & CHEMICAL BURNS IN A FIREBALL**

Source Strength

- BLEVE of flammable liquid vertical cylindrical tank
- Fireball Diameter: 147 meters      Burn Duration: 10 seconds

Threat Modelled: Thermal radiation from fireball; Red: 254 meters (10.0 kW/(sq m) = potentially lethal within 60 sec); Orange: 363 meters (5.0 kW/(sq m) = 2nd degree burns within 60 sec); Yellow: 569 meters (2.0 kW/(sq m) = pain within 60 sec)



**Figure 28: Ethylene Glycol Propyl Ether - BLEVE**

### 7.2.7.3 Chlorine

#### **Chemical data**

- Chemical Name: CHLORINE
- CAS Number: 7782-50-5
- Molecular Weight: 70.91 g/mol
- AEGL-1 (60 min): 0.5 ppm; AEGL-2 (60 min): 2 ppm; AEGL-3 (60 min): 20 ppm
- Ambient Boiling Point: -35.6° C
- Vapor Pressure at Ambient Temperature: greater than 1 atm
- Ambient Saturation Concentration: 1,000,000 ppm or 100.0%

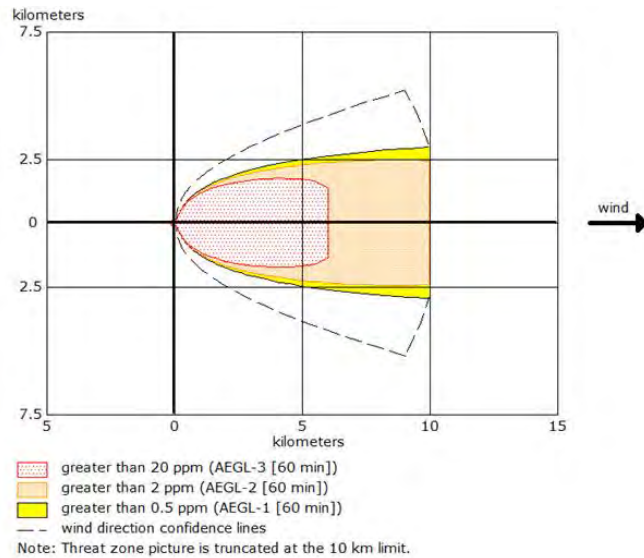
#### **Scenario : Vapor Cloud Explosion**

##### Source Strength

- Leak from hole in vertical cylindrical tank
- Non-flammable chemical is escaping from tank
- Circular opening diameter: 10 centimeters; Opening is 20 centimeters from tank bottom
- Release Duration: ALOHA limited the duration to 3 min
- Max Average Sustained Release Rate: 13,600 kg/min
- Total Amount Released: 24,309 kilograms

##### Toxic area of vapor cloud

Model Run: Heavy gas; Red: 6.0 kilometers (20 ppm = AEGL-3 [60 min]); Orange: greater than 10 kilometers (2 ppm = AEGL-2 [60 min]); Yellow: greater than 10 kilometers (0.5 ppm = AEGL-1 [60 min])



**Figure 29: Chlorine: Toxic Area of Vapor Cloud**

#### 7.2.7.4 Methanol

##### **Chemical data**

- Chemical Name: METHANOL
- CAS Number: 67-56-1
- Molecular Weight: 32.04 g/mol
- AEGL-1 (60 min): 530 ppm AEGL-2 (60 min): 2100 ppm AEGL-3 (60 min): 7200 ppm
- LEL: 71800 ppm UEL: 365000 ppm
- Ambient Boiling Point: 62.7° C
- Vapor Pressure at Ambient Temperature: greater than 0.21 atm
- Ambient Saturation Concentration: 230,666 ppm or 23.1%

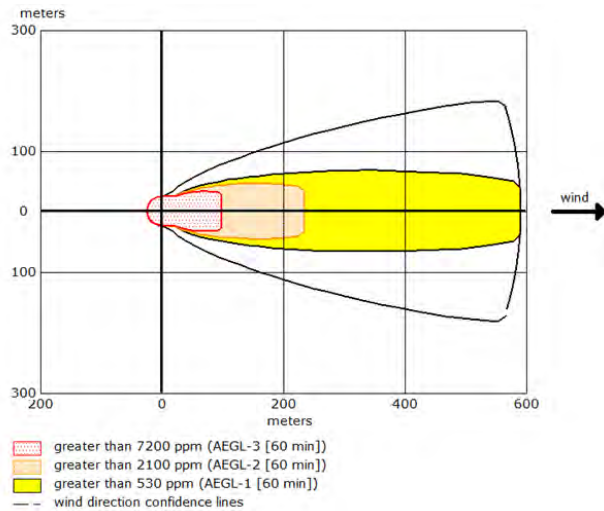
##### **Scenario I: Vapor Cloud Explosion**

###### Source Strength

- Leak from hole in vertical cylindrical tank
- Flammable chemical escaping from tank (not burning)
- Circular opening diameter: 10 centimeters; Opening is 20 centimeters from tank bottom
- Release Duration: ALOHA limited the duration to 1 hr
- Max Average Sustained Release Rate: 183 kg/min
- Total Amount Released: 7,693 kilograms
- Puddle spread to a diameter of 60 m

###### Toxic area of vapor cloud

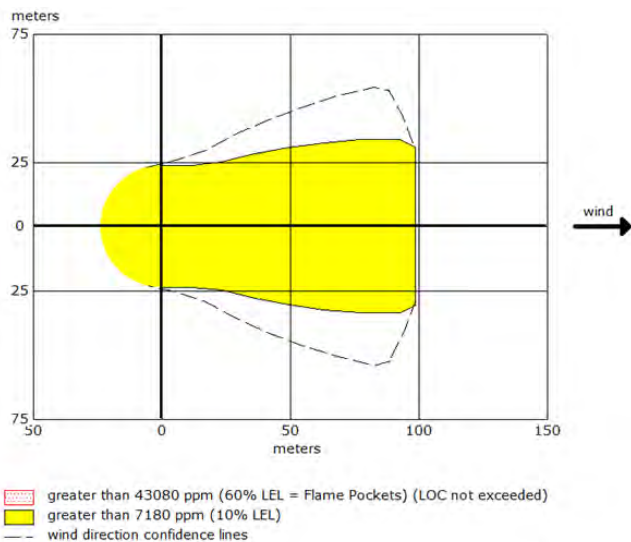
Model Run: Heavy gas; Red: 98 meters (7200 ppm = AEGL-3 [60 min]); Orange: 236 meters (2100 ppm = AEGL-2 [60 min]); Yellow: 591 meters (530 ppm = AEGL-1 [60 min])



**Figure 30: Methanol: Toxic Area of Vapor Cloud**

Flammable area of vapor cloud

Model Run: Heavy Gas; Red: LOC was never exceeded (43080 ppm = 60% LEL = Flame Pockets); Yellow: 99 meters (7180 ppm = 10% LEL)



**Figure 31: Methanol: Flammable Area of Vapor Cloud**

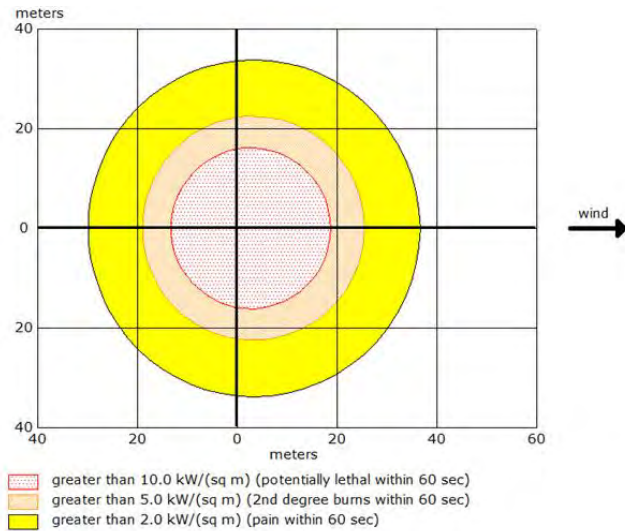
**Scenario II: Leaking Tank, Chemical is burning and forms a Pool Fire**

Source Strength

- Leak from hole in vertical cylindrical tank
- Flammable chemical is burning as it escapes from tank
- Circular opening diameter: 10 centimeters; Opening is 20 centimeters from tank bottom
- Max Burn Rate: 362 kilograms/min
- Total Amount Burned: 16,335 kilograms
- Puddle spread to a diameter of 21 meters

Threat Modelled: Thermal radiation from pool fire

Red: 19 meters (10.0 kW/(sq m) = potentially lethal within 60 sec); Orange: 26 meters (5.0 kW/(sq m) = 2nd degree burns within 60 sec); Yellow: 37 meters (2.0 kW/(sq m) = pain within 60 sec)



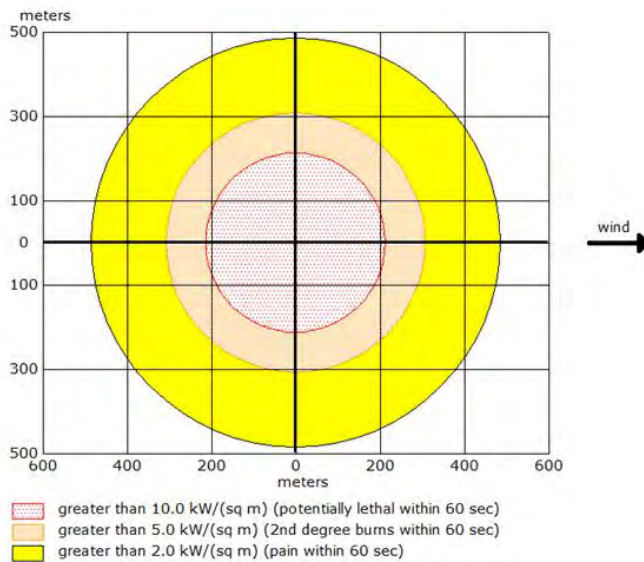
**Figure 32: Methanol: Thermal Radiation from Pool Fire**

**Scenario III: BLEVE, TANK EXPLODES & CHEMICAL BURNS IN A FIREBALL**

Source Strength

- BLEVE of flammable liquid vertical cylindrical tank
- Fireball Diameter: 148 meters      Burn Duration: 10 seconds

Threat Modelled: Thermal radiation from fireball; Red: 212 meters (10.0 kW/(sq m) = potentially lethal within 60 sec); Orange: 307 meters (5.0 kW/(sq m) = 2nd degree burns within 60 sec); Yellow: 485 meters (2.0 kW/(sq m) = pain within 60 sec)



**Figure 33: Methanol - BLEVE**

**7.3 Risk Mitigation Measures**

- It is recommended to follow all the applicable Indian laws such as MSIHC Rules; CA (EPPR) Rules; PLI Act & Rules; Explosives Act & Rules; SMPV Rules; Factories Act & Rules; ODS (R&C) Rules; Petroleum Act & Rules; Port Act & Rules; Dock Act & Rules.
- Fire-fighting equipment shall be provided as per OISD 117 & 156 and API RP 2021/API RP 2030.

- Storage tanks, pipelines and other components should meet IS/OISD/API/prevaling International standards for structural design integrity and operational performance to avoid catastrophic failures during normal operation and during exposure to natural hazards and to prevent fires and explosions. Applicable standards typically include provision for overfilling protection, metering and flow control, fire protection (including flame arresting devices), and grounding (to prevent electrostatic charge). Overfill protection equipment include level gauges, alarms, and automatic cut-off systems.
- It is recommended to install ESDs on all the pipelines at safe distance from jetty so that the facility downstream is isolated in case of an emergency. The consequence of an event is greatly reduced by installing ESDs and thereby reducing the risk to bring it to ALARP.
- It is recommended to develop a detailed disaster management plan prepared for the site with firefighting facilities available and to be provided in future to handle any untoward incident. Organogram with actions and duties assigned/actions to be taken by the responsible authorities should be listed in the document. It should be revised for any modifications carried out at the installation.
- Consider feasibility of substitution of hazardous chemicals such as solvent based paints with less hazardous alternatives. Label chemicals with appropriate, internationally recognised, hazard symbols.
- Chemicals with different hazard symbols should not be stored together - clear guidance on the compatibility of different chemicals can be obtained from the Materials Safety Data Sheets (MSDS) which should be readily available from the manufacturer and on site.
- Store chemicals in a dedicated, enclosed and secure facility with a roof and a paved/concrete floor. Chemical tanks should be completely contained within secondary containment such as bonding.
- Install devices to prevent spills and overfills, e.g., alarms to warn of overfilling and automatic shut-off devices or secondary spill containment.
- Maintain and inspect storage units regularly.
- Loading / unloading activities should be conducted by properly trained personnel according to pre-established formal procedure to prevent accidental releases and fire / explosion hazards. Procedures should include all aspects of the delivery or loading operation from arrival to departure, connection of grounding system, verification of proper connection and disconnection of marine loading arm, adherence to no-smoking and no-naked light policies for visiting personnel.
- Quick isolation of mechanical loading arm in case of spillage from the ship/tanker or pipelines near the jetty to avoid personnel and property loss.
- Consider installation and use of groundwater monitoring points on site to check for contamination. Implement a Solvent/Hazardous Materials Management Plan to monitor and control the use of solvents and hazardous materials on site.
- Necessary arrangement of firefighting facility as per various national and international codes for the facilities to avoid any major incident.
- To identify the hazards, present in the system, a hazard identification study such as a Hazard and Operability study (HAZOP) should be undertaken by the individual industries. All hazards identified should be examined and appropriate mitigating measures developed and implemented.
- For all the hazardous material tanks where there is a single in/outlet line, a Remotely Operated Vehicle (ROV) (or an equivalent design to allow isolation of the tank from the line in an emergency) should be provided.
- NIMZ has to ensure that first aid equipment and manpower resources are at place to deal with emergencies, in consultation with emergency services to rescue any personnel, trapped or immobilized by an accident scenario.

- High-resolution closed-circuit TV camera and hydrocarbon detectors shall be in hazardous chemical material transportation and handling areas for any leakage from the flanges / valves.
- Implement and maintain appropriate safety management systems to control the managerial and organizational factors that can impact on the overall risk associated with the hazardous materials.
- Carryout regular checks/maintenance and testing of instruments, valves and flange joints as per strict schedule. Pipelines, flanges, and valves require special attention to minimize the failure rate.
- Prevention of potential ignition sources such as:
  - Proper grounding to avoid static electricity build up and lightening hazards (including formal procedures for the use and maintenance of grounding connections)
  - Use of intrinsically safe electrical installations and non-sparking tools
  - Implementing permit systems and formal procedures for conducting any hot work during maintenance activities, including proper tank cleaning and venting
- It is recommended that all electrical fittings in the system should confirm to flame/explosion proof regulations
- Implement and maintain appropriate safety management systems to control the managerial and organizational factors that can impact on the overall risk associated with the hazardous materials.
- Regular checks / maintenance and testing of instruments, valves and flange joints as per strict schedule will enhance the safety in the premises. Pipelines, flanges and valves require special attention to minimize the failure rate.
- It is recommended to carryout regular maintenance and testing of instruments, valves, and flange joints as per strict schedule. Pipelines, hoses, PSV's require special attention to minimise the failure rate
- Pipeline should be protected against external / internal corrosion
- **Do's and Don'ts shall be displayed prominently in the site near the pipelines and at all workplaces.** Regular maintenance shall be carried out under the supervision of an authorized person
- Important telephone numbers of emergency shall be displayed prominently in bold letters in the plant site and administration building
- Caution boards shall be displayed for all working person
  - No smoking signs
  - No flames or pilot lights or electrical gadgets.
  - Emergency contact numbers.
- All electrical equipment shall be provided with proper earthing. Earthed electrode should be calibrated, periodically tested and maintained
- Emergency lighting shall be available **at all critical locations including the operator's room to carry out safe shut down of the plant, ready identification of firefighting facilities such as fire water pumps and fire alarm stations**
- All electrical equipment shall be free from carbon dust, oil deposits, and grease
- Facilities should also be equipped with Fire Detection and suppression equipment such as Fire tenders, all types of fire extinguishers like DCP, CO<sub>2</sub>, water CO<sub>2</sub> foam types in adequate numbers, Fire Hydrant and monitor system as per TAC guidelines to take care of any fire hazard
- Fire Detection/alarm system to be provided for Control Rooms, cable Galleries, Transformers area and Administrative building and these may be of ionization, optical and heat sensing type
- All fire systems should be located in a safe area of the proposed facility
- Firefighting equipment shall be provided as per applicable standards and guidelines
- Consider linking foam and fire water system. Considerations should be given to directly inject AFFF (Aqueous Film Forming Foam) compound into the respective fire mains (at 6 percent

strength), which can act as a vehicle to transport foam solution to user points on either site for mobile response foam branches / cannons

- Facilities should be properly equipped with fire suppression equipment that meets internationally recognized technical specifications for the type and amount of flammable material stored at the facility
- Preparation of a fire response plan supported by the necessary resources and training, including training in the use of fire suppression equipment and evacuation. Procedures may include coordination activities with local authorities or neighbouring facilities
- Provision of fire safety training and response as part of workforce health and safety induction/training, including training the use of fire suppression equipment and evacuation, with advanced fire safety training provided to a designated firefighting team
- Use of approved insulated tools, rubber mats, shockproof gloves and boots, tester, fuse tongs, discharge rod, safety belt, hand lamp, wooden or insulated ladder and not wearing metal ring and chain is insured
- Flame and shock detectors for fire safety shall be provided
- Danger from excess current due to overload or short circuit is prevented by providing fuses, circuit breakers, thermal protection
- Safety measure as per recommended guidelines by OISD, PNGRB and other national and international guidelines shall be strictly followed.
- For any changes/modifications for the pipelines/storage tanks etc, it is strongly recommended to conduct the Risk Assessment study for the final size of the pipeline, storage tanks etc. This will help in preparing a more realistic disaster management plan to avoid occurrence of any major incident. The existing DMP shall be amended on time to time based on the actual implementation plan by incorporating the findings as per the revised risk assessment.
- **Do's and Don'ts shall be displayed prominently in the site near the pipelines and at all workplaces.** Regular maintenance shall be carried out under the supervision of an authorized person.
- Important telephone numbers of emergency shall be displayed prominently in bold letters in the plant site and administration building.
- Caution boards shall be displayed near the pipelines for all working person.
  - No smoking signs
  - No flames or pilot lights or electrical gadgets.
- Emergency contact numbers.

### **7.3.1 Evacuation plan for Emergency and Assembly Points**

In order to manage emergencies more effectively, decision makers may benefit from having in-place evacuation plans for scenarios which are most likely to happen, even though real-time design or re-evaluation of evacuation plans may be required after the disaster strikes.

Based on the disaster scenarios, pre-warning for sudden/onset of disasters can leave enough time for evacuations prior to the event. In the case of natural disasters is the probability of their occurrence and effects is one of the influential factors. Seasonal disasters, even if sudden, pose lesser problems than non-seasonal disasters so though evacuation plans can be in place for either situation.

#### Building Evacuation

As soon as the pre-warning is given the first step is to evacuate the buildings. The Evacuation action plan which includes following steps to follow during a disaster

- On the sound of an alarm, begin immediate evacuation
- In case of fire, activate the nearest pull station and call Emergency
- Evacuate via the nearest stairwell or grade level exit
- Go to your pre-determined Evacuation Assembly Point/Shelter Area
- If trapped by smoke, stay low, cover your mouth with wet cloth, stay near a window,

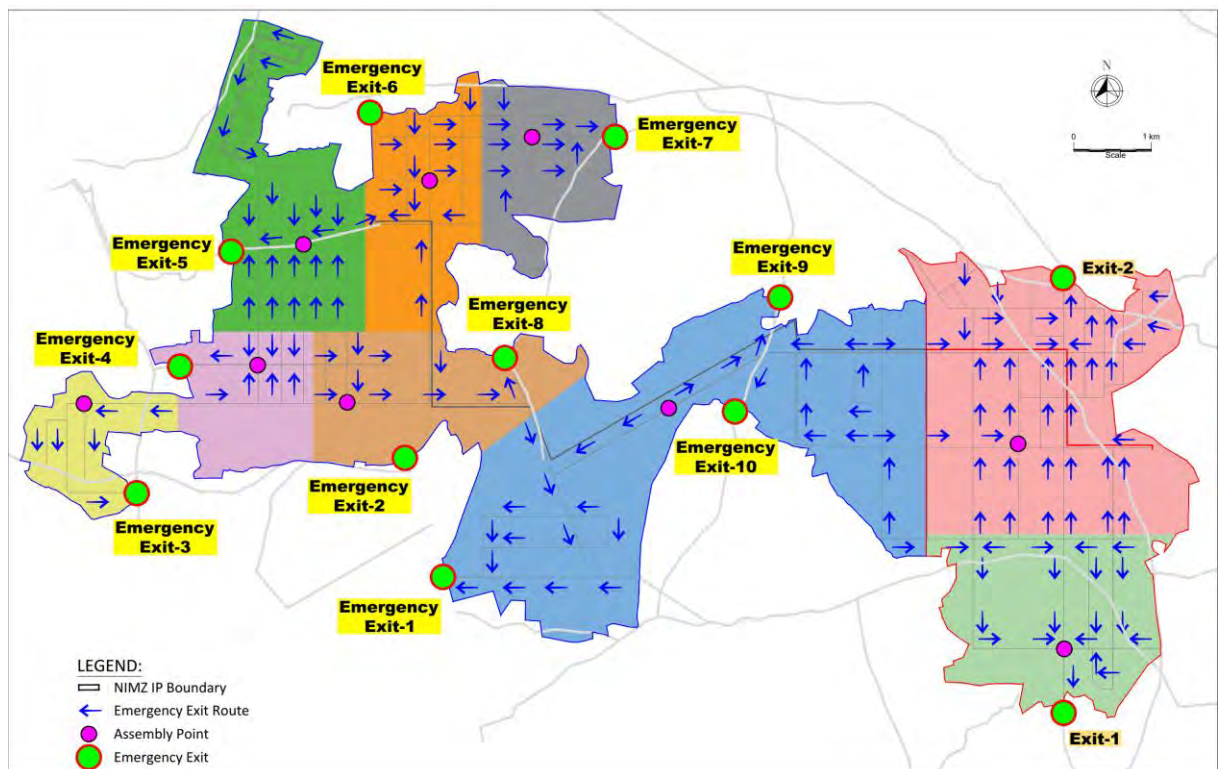
- Open it but do not break it, hang something out the window to let fire personnel know you are there and put something in cracks around the door, phone emergency if possible
- The layout maps showing exit routes will be placed at all important places also pamphlets indicating same will be placed with the First Aid Kit
- Be familiar with the location of first aid kits, fire alarms, and extinguishers, as well as persons with first aid skills
- Do not use the elevators

Site Evacuation

The process involved in the evacuation from the source is as follows

- Identify the area vulnerable to disasters to which the evacuation plan will be applied
- Identify number of shelters surrounding the source of origin
- Identification and choice of the evacuation routes

A map showing the Emergency Assembly Points and the road network connecting each Emergency Assembly point is prepared and shown in **Figure 34** which is based on the location of industries/units, location of free space in the plan along the nearest main exit route and some assumptions made based on its criticality. There are more than 10 entry/exits in addition to the main entry/exit point which can be used for easy evacuation during emergency situation.



**Figure 34: Emergency Evacuation Plan and Assembly & Emergency Exit Points**

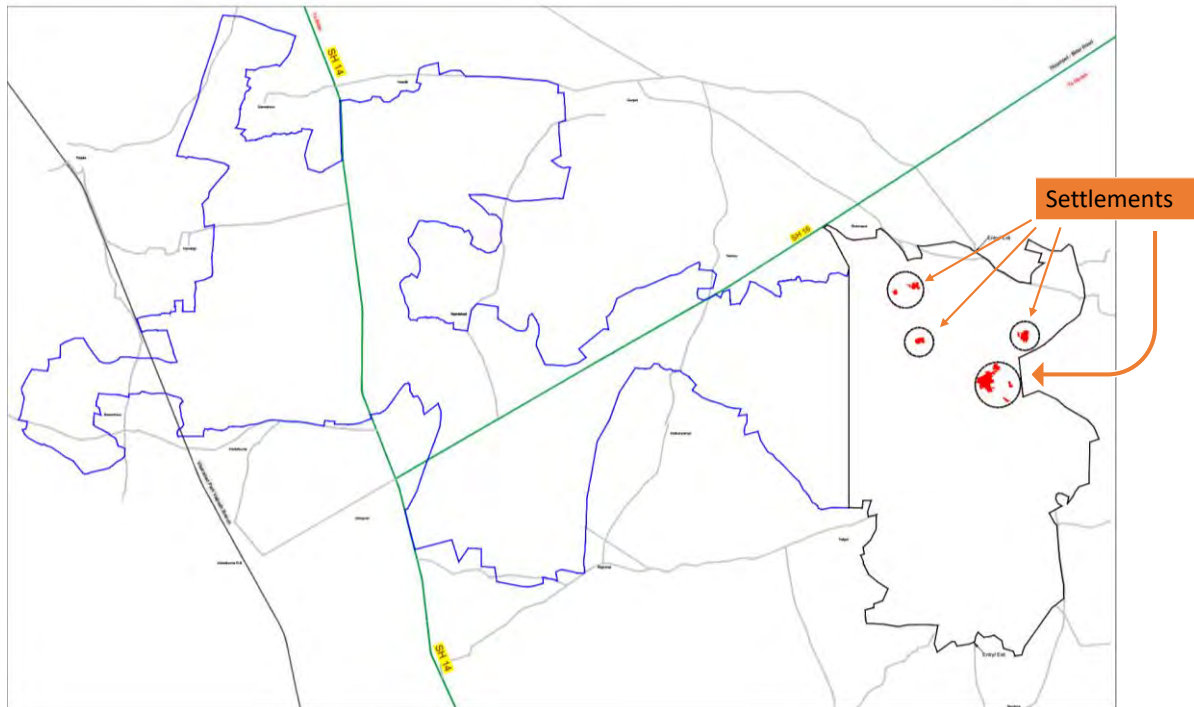
**8 Hamlets Proposed in the Industrial Area would lead to a Negative Impact hence Settlements have to be Planned in a Safe Zone and a Modified Plan be Submitted**

Following are the settlements in the project site retained in the master plan as it is by providing green buffers:

- Mungi Tanda
- Chandranaik Tanda

- Suryanaik Tanda (Rukumpur Tanda)
- Chilepalle Tanda

Hamlets in the master plan are shown in **Figure 35**, Settlements in old Master plan are shown in **Figure 36**.



**Figure 35: Scattered Settlements in Project Boundary**



**Figure 36: Settlements on Google Map**

### 8.1 Relocation of Settlements

Inline to EAC recommendation, resettlement is considered and modified the master plan inline to observations of EAC and proposed relocation of settlements/thandas are shown in **Figure 37** and revised master plan with relocated settlements given in **Figure 38**.

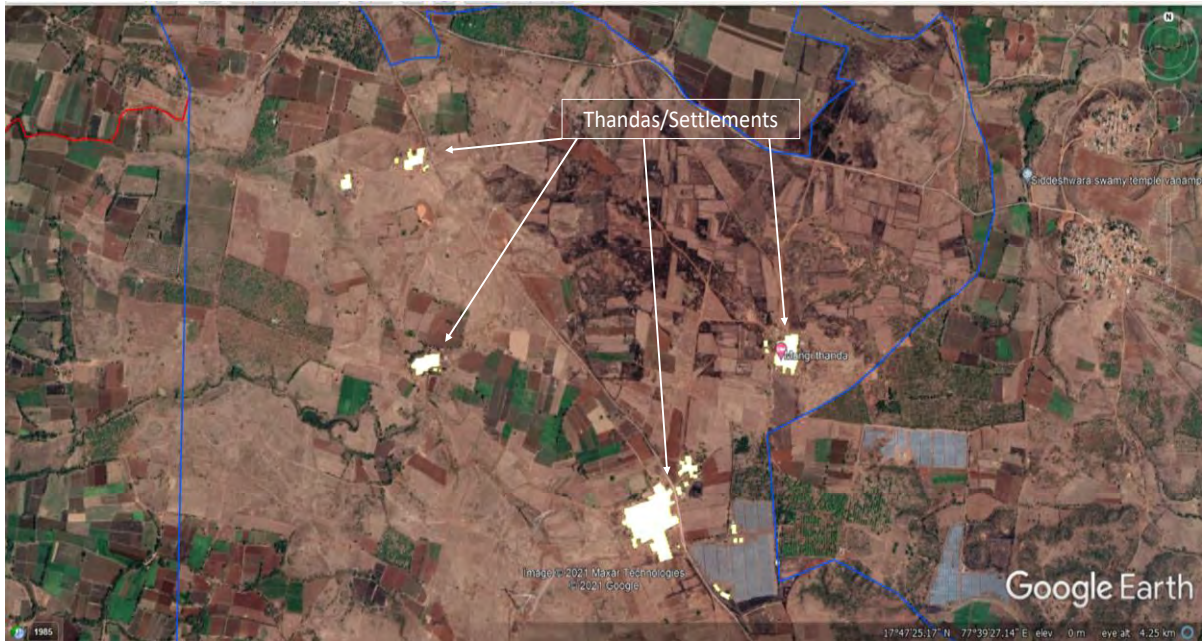


Figure 37: Thandas/Settlements to be Relocated

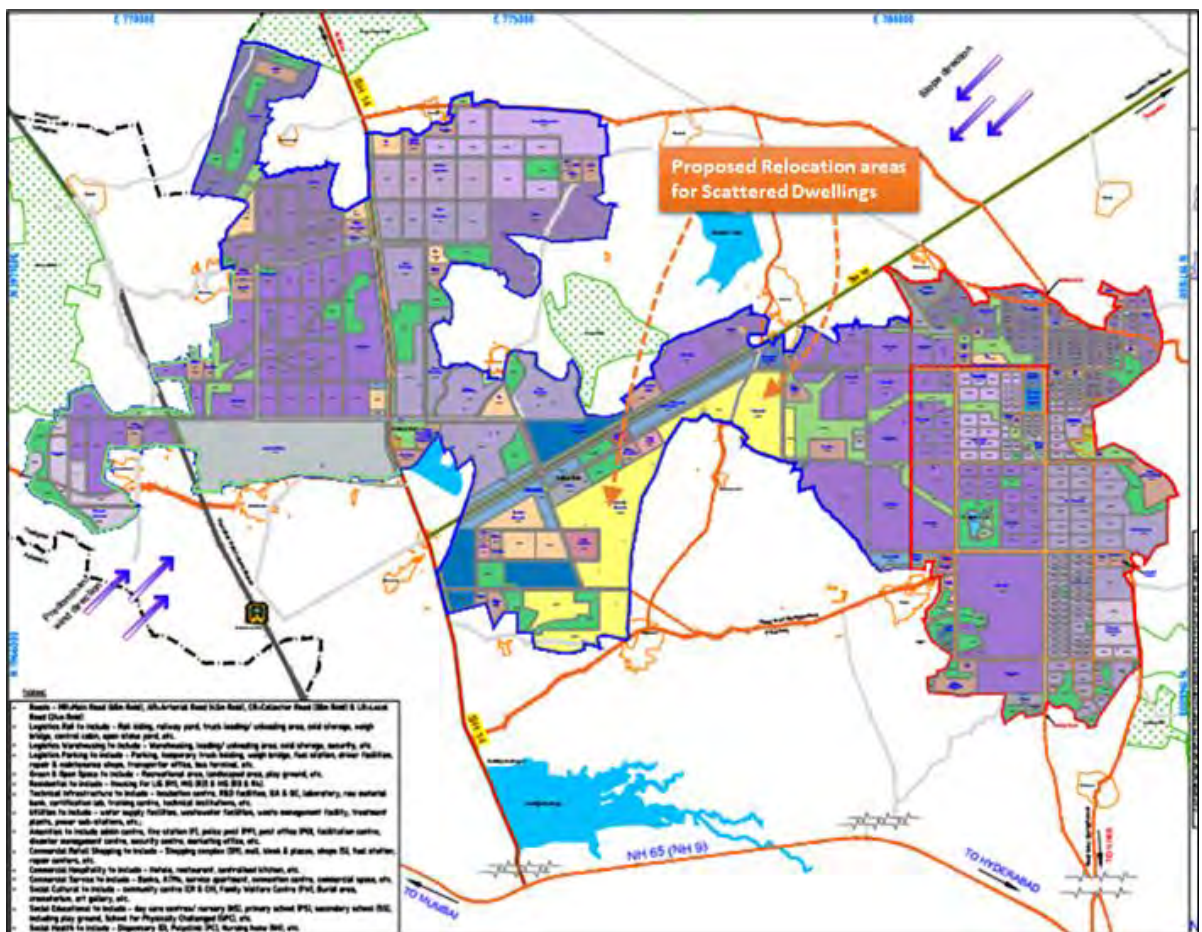


Figure 38: Propose Relocation Areas for Thandas in Revised Master Plan

## **9 The Proponent Should Develop a Greenery and Conservation Management Plan to Sustain Existing Greenery**

### **9.1 Greenery and Conservation Management Plan (GCMP)**

The consortium of Environmental Matters and Oikos was appointed for detailed study on greenery and conservation management plan to comply the suggestions of EAC. The main aim of the study is to develop a Greenery and Conservation management plan (GCMP) involved analysis of available data regarding biodiversity and ecology along with the project area (contour maps, road network, land use, etc.). Ecological survey and study visit was conducted during July, 2021 and October, 2021.

Report was prepared after conduct of the site visit and analysis of the data. Subsequently discussions were held between EM, Oikos and L&TIEL to finalize the green space areas considering practical constraints as well as critical ecological areas in the project.

To arrive at a conservation management plan for local ecology & specific biodiversity, the following guiding principles were adopted:

- Embedding ecological thinking in locating, orienting, and configuring green belt area vis-à-vis proposed industrial landuse in the NIMZ
- Planning contiguous corridors to ensure internal connectivity in the green spaces, as far as practically possible
- Identifying and promoting native indigenous species of flora that will have a better chance of survival
- Balancing the requirements of ecological aspects and aesthetics in designing the green belt and landscape areas
- Seamlessly integrating in the design, the supporting requirements such as sapling nursery, natural / stormwater drainage, topography, soil matrix, groundwater etc.
- Factoring any regulatory requirements and recommendations of best practices / guidelines (such as IFC PS6 etc.)

### **9.2 Land use and Regional Context**

The proposed NIMZ project area near Zaheerabad is part of a semi-arid landscape of India. The land is spread over a flat terrain, having majority area under existing or fallow agriculture, with few areas having gullies & slopes generally seen at the end of continuous lateritic cap. Various land classes identified for analysis include Streams, agriculture, agriculture fallows, scrub, old stone quarries, settlements, roads, plantations, & commercial development.

Surveys were carried out in all the previously identified 15 natural scrub areas to study landscape, topography, drainage patterns, soil and ground textures, identify floral species and faunal (terrestrial and avian) species presence.

Many erosional features like gullies, headword erosion, steep gorges are seen along with representative dry deciduous and scrub vegetation. In areas less dominated by humans, like scrub, gullies, a mosaic of rocky outcrop with small puddles, thorny shrub clusters & coppiced trees is seen. Plantation of various trees like Eucalyptus, Mango is seen intermittently. Old stone quarries for laterite stone are seen throughout the landscape in the project area.

### **9.3 Biodiversity Analysis of the Project Area**

The biodiversity found all over the land is typical representative of semi-arid landscape. During the visit, about 150 floral species & 65 faunal species, mainly mammals, birds, & butterflies were identified, spread over various habitats.

Considering a drastic land use change from rural-agricultural setup to Industrial area, following approach is proposed for CGMP:

1. Keep large tracks of landscape mosaic that will support entire array of biodiversity, as green areas (these will be proposed in detail in this study)
2. **Set specific strategies for REET species in ‘Restoration-plantation plan’ for Green areas.**

The focus species are considered as REET: *Chlorophytum borivilianum*, *Chloroxylon swietenia*, *Decalepis hamiltonii*.



Regenerating scrub areas on sloping portions of the land



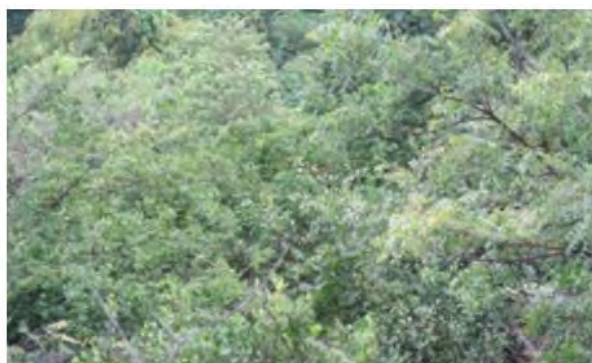
Biodiversity in scrub areas



Rocky outcrop of laterite in scrub areas



Scrub & thorn vegetation



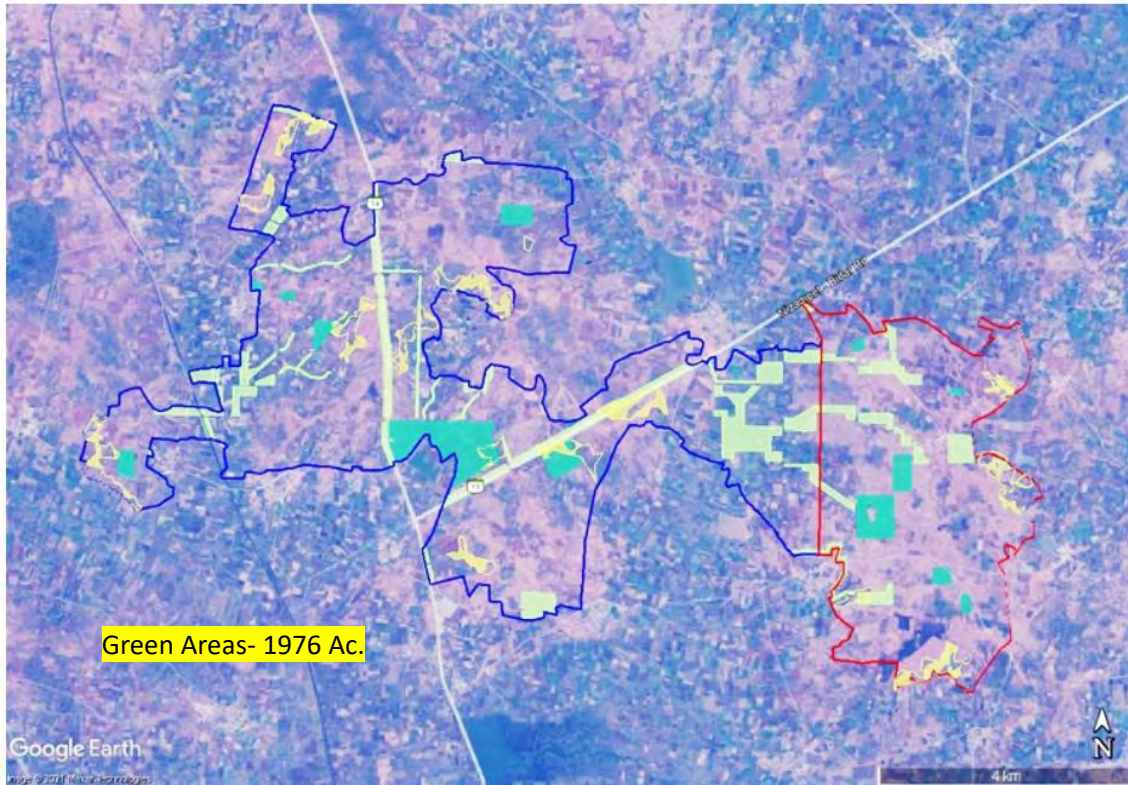
Mix of evergreen & deciduous native species



Micro habitats as refuge to uncommon birds – The Eurasian Thick-knee

#### 9.4 Proposed Green Areas in the Master Plan

Green area as per the Previous Master Plan are shown in **Figure 39**.



**Figure 39: Green area as per the Previous Master Plan**

During the analysis of designated Green areas in Master Plan, following points were noted,

1. L&TIEL team have preserved streams, their buffers, waterbodies, etc in master plan as greenery and some recreational spaces for the dwellings of the project.
2. After understanding the ground conditions, it was observed that, the steeper sections of the landscape hold better potential for conservation while are not suitable for development. These areas have representative biodiversity of the region.
3. Designated green areas in current master plan have some areas spread over flat land, which are more suitable for industrial areas. While it does not consider preservation of steep sloping areas. So after reviewing the proposed plan it is proposed to include steep sloping areas in greenery plan than some of the spaces that are present on the flat portion.

## 9.5 Modification of Green Areas

The 'Green Areas' are modified based on the following approach

1. **Steep sloping areas at the end of lateritic cap:** These areas are unsuitable for development while holding on to the remanent biodiversity of the area. All have been marked on contour plan using available contour data as well as with the help of google earth. Advantage of retaining these as green areas is reduction in soil erosion risk, use of nondevelopable areas in a meaningful way, in-situ preservation of existing native biodiversity.
2. **All streams with 5 m buffer on either side:** Protected streams in developed areas are important as habitats, corridors, and flood control.
3. **Small water tanks with 5 m buffer:** During analysis it was observed that there are many temporary water harvesting structures used for various purposes. Some of them are visible on Google and marked in contour plan. They can be preserved if possible.

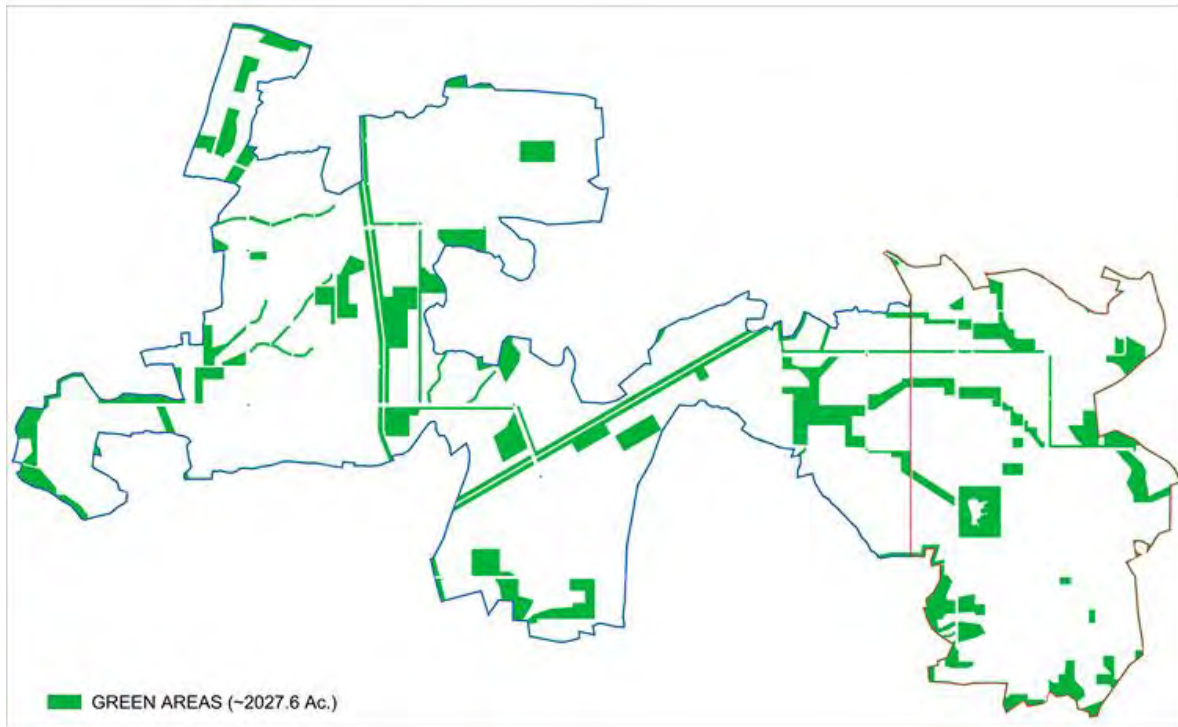
The plan also includes area with old stone quarries clustered together, some of these features have an aesthetic appeal and can be preserved and planned to have some recreational areas.

## 9.6 Revision of Master Plan

Based on the Environmental Matters and Oikos team suggestions, Master Plan was revised with due considerations of green areas. Revised Green areas in Revised Master Plan is shown in **Figure 40** and Revised Green areas on Google Map are shown in **Figure 41**. **The green area cover increases to ~2027.6 Ac. in the revised master plan from ~1976 Ac.**

In the revised final master plan for NIMZ the following two aspects will be worked

- Detailed planning of Green Areas
- Identification of Conservation and Management strategies for key floral species as per the TOR / guidelines.



**Figure 40: Revised Green areas in Master Plan**



**Figure 41: Revised Green areas on Google Map**

## 9.7 Proposed Treatment for Green Areas

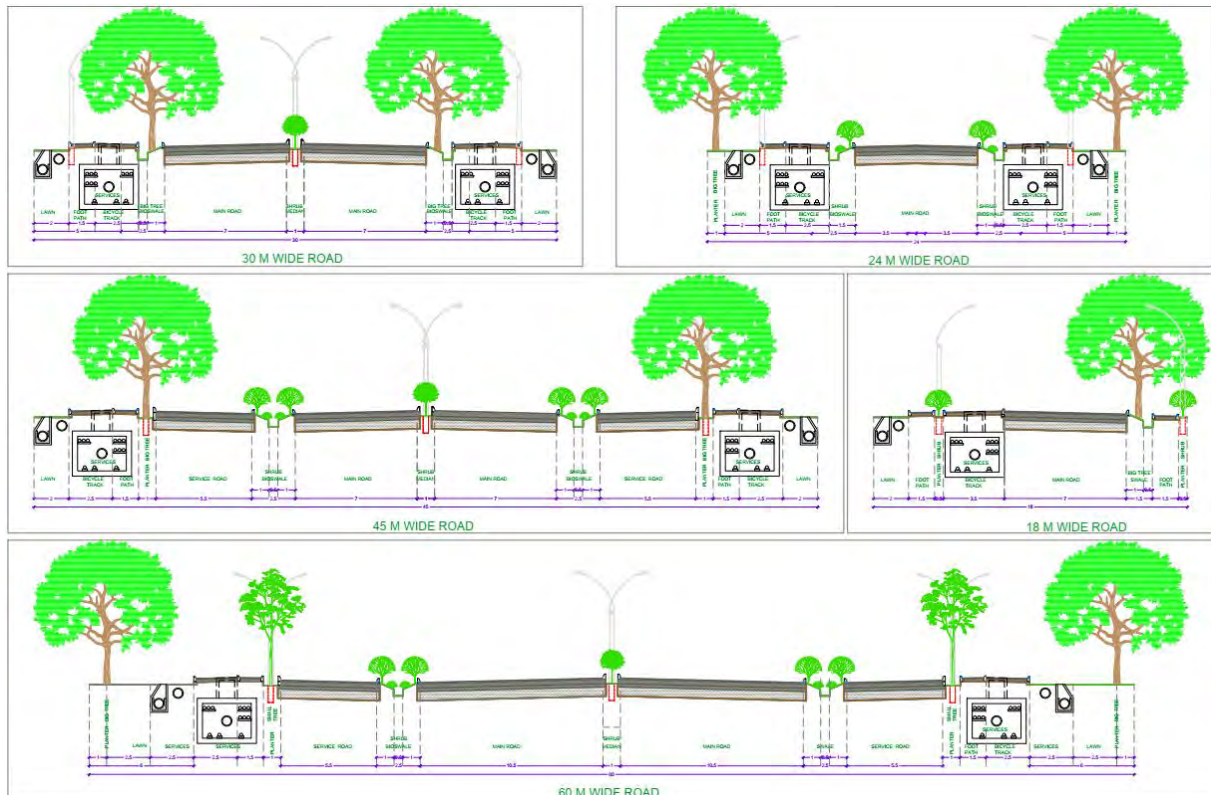
Land features of master plan area was noted which has patches of rocky outcrop, loose material with small stone fragments, soil, existing vegetation, gullies. All these land features within a green area need to be treated differently to form a mosaic of habitats supporting variety of life forms.

### 9.7.1 Treatment to Green areas

Green area have various uses as well as composition. For example, the area around Yelgoi lake with lake buffer, rocky outcrops, and soil area. So, the treatment proposed is,

1. Riparian Buffer around lake to be planted densely with riparian species at distance of 15 ft
2. Rocky outcrop to be preserved as it is and planted intermittently with clusters of thorny plants & shrubs and Ficus as key species
3. Areas with soil to be planted closely with typical dry deciduous vegetation, at distance of 20 ft apart
4. Area under present agriculture and near to road is treated as a recreational green, with sparse shade giving trees where other activities like seating, small play areas, garden areas, pathways, etc. can be planned eventually. (Present scope has native tree plantations only so detailed garden designs are not planned)
5. Road Avenue Planning: Roads are handled in 2 ways; one is proposing changes to typical sections and other sample of 500 m road avenue plantations.

In road sections, it is proposed to include a bio-swale to tackle storm water instead of an enclosed storm water chamber. This will allow more green areas along road & increase rainwater percolation. For roadside avenues, a mix of medium sized tree species and large trees is selected based on availability of spaces.



**Figure 42: Proposed Green Areas along the Road Sections**

## 9.8 Guidelines for Individual Industrial Plots for Planning Green Areas

In parallel, a guidance for individual industrial plots in the NIMZ will be developed for planning green areas within the individual plots so that the overall conservation plan proposed in our study for the entire project area is sustained and continued.

The report of Environmental Matters and Oikos team was given as **Annexure 3**.

## 10 All Tall and Old and Heritage Native Trees should be Enumerated, GPS Tagged and Detailed in EIA EMP and Plotting Design should be such that all such Trees are Protected

### 10.1 Study of Heritage Native Trees

A formal definition of Heritage Trees is not available, a reasonably useful definition can be used from Heritage Trees of Urban India, Importance and their Protection, Seema Mundoli and Harini Nagendra, Aziz Premji University, September 2020.

**“A notable specimen because of its size, form, shape, beauty, age, colour, rarity, genetic constitution, or other distinctive features; a living relic that displays evidence of cultural modification by native or non-native people, including strips of bark or knot-free wood removed, test hole cut to determine soundness, furrows cut to collect pitch or sap, or blazes to mark a trail; a prominent community landmark; a specimen associated with a historic person, place, event or period; a representative of a crop grown by ancestors and their successors that is at risk of disappearing from cultivation; a tree associated with local folklore, myths, legends or traditions; a specimen identified by members of a community as deserving heritage recognition.”**

Accordingly, adopted a broad approach of considering the following criteria for identifying heritage trees:

1. Approximate age of large trees seen on land - this will be based on our experience and/or feedback from local people. Trees that have age above 50 can be regarded as Heritage trees.
2. Girth & canopy / crown size for selection criteria will be decided once enough data is gathered
3. Rarity, Species type, whether Native to the area (although this is not a necessity as some of the older heritage trees can be linked to historical figures and events)
4. Ecological as well as ethnobotanical function / value to note its association with local fauna (wildlife) and usefulness to people (local community), associated with a sacred grove, a landmark in the area
5. Religious value based on specific interviews with local community and if they have any associations / religious sentiments attached to the tree

Few Heritage Trees of following species Neem, Tamarind and Mango were observed and recorded.



**Figure 43: Large Neem Tree in Project Area**

## **10.2 Heritage Tree Conservation**

After the detailed surveys the possible options to conserve the heritage trees/plants also to be proposed along with the conservations management plan

Strategies on heritage tree conservation shall be provided including the possibilities of relocation and restoration of Heritage trees/plants.

The report of Environmental Matters and Oikos team was given as **Annexure 3**.



**ANNEXURE -1**



## Annexure 1 Detailed Responses to Representations Received by the Ministry

Responses for the representations received

S. No	Name and Place of Stakeholder	Public View or Comments	Response of TSIIC
Replies to Written Representations			
1.	From: Farmers, Agriculture labourers of Husselli village, Nyalkal mandal, Sangareddy district Date: 28.01.2021	We, farmers, agricultural labourers, villagers, inform that, Environmental Public Hearing meeting was held on 20.01.2021 at Bardipur village outskirts for obtaining Environmental Clearance for NIMZ. Dandora (Tom-Tom) was done in our village on 19.01.2021 for attending the meeting. Notification in newspaper was issued on 17.12.2020 for voluntarily expressing the views on 20.01.2021. We, the villagers coming from our village to participate the meeting were got blocked by police picket on the way. We got obstructed by them. Though we told that we are invited by the government authorities from our village to attend the meeting, they did baton charge on us and followed, we ran and saved our lives.	<ol style="list-style-type: none"> <li>Public hearing was conducted following the strict National Directives for COVID-19 Management and the relevant guidelines issued by the Ministry of Home Affairs, Ministry of Health &amp; Family Welfare, GoI, and Telangana State Government (GoTS), special arrangements were made for conducting public hearing such as seating arrangements maintaining at least 2 m distance, face masks and hand sanitizers were distributed for every participant, People are requested to maintain proper physical distance and requested all the participants to use face masks and stage, speaker podium stands and mikes.</li> <li>The objective of the Public Hearing to seek the views of the public and address them accordingly in the EIA Report. Hence the local populace were requested to express/submit their concerns during the Public Hearing.</li> <li>Precautionary measures were taken by district administration to prevent law and order issues.</li> <li>Public hearing was attended by more than 870 people and it was presided over by district magistrate and collector.</li> <li>Nearly 68 number of speakers expressed their views on the proposed project and nearly 72 written representations were received from the various individuals and organizations about the proposed development.</li> <li>As per directions of district magistrate, law &amp; order was maintained. This is not to cause any disturbance to public (project affected people/stakeholders) who are really interested to participate in the hearing and express their views.</li> </ol>
2.	From: Farmers, Agriculture labourers of Gunjetti village, Nyalkal mandal, Sangareddy district Date: 28.01.2021	Though, we came by foot across the fields, police didn't allow us into the meeting hall. They troubled us by not allowing us to express our view on environment. Our villagers were kept in police station. Our villagers were blocked by police intentionally by not allowing them to express their views on environmental clearances. They drained the rights of our expression of views. This matter telecasted in news channels and published in newspaper also. Meeting hall was filled by government officials and police. They were more times in number than farmers and people.	
3.	From: Farmers, Agriculture labourers of Mungi Tanda, Nyalkal mandal, Sangareddy district Date: 28.01.2021	As people were not allowed to participate by severe detention, we are opposing the public hearing held. With whom orders they oppressed us, we are requesting to take strict action on all of them. They didn't allow the people for voluntarily participate and express the views by making us panic, they troubled us physically and mentally. So, we are requesting you to cancel the meeting in which people were not allowed to participate and conduct the public hearing meeting in such a way that people can	
4.	From: Farmers, Agriculture labourers of Elgoi village, Nyalkal mandal, Sangareddy district Date: 28.01.2021		
5.	From: Farmers, Agriculture labourers of Metalkunta village, Nyalkal mandal, Sangareddy district Date: 28.01.2021		
6.	From: Farmers, Agriculture labourers of Mamidgi village, Nyalkal mandal, Sangareddy district Date: 28.01.2021		
7.	From: Farmers, Agriculture labourers of Ganeshpur village, Nyalkal mandal, Sangareddy district Date: 28.01.2021		
8.	From: Farmers, Agriculture labourers of Ganeshpur village, Nyalkal mandal, Sangareddy district Date: 28.01.2021		

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
	district Date: 28.01.2021 From: Farmers, Agriculture labourers of Hadnur village, Nyalkal mandal, Sangareddy district Date: 28.01.2021	participate voluntarily and express their views freely on environmental clearances by giving the chance to people to conduct real public hearing.	
<b>9.</b>	From: Gangadhar Goje<see-uh4-tspcb@telangana.gov.in>  Date: January 23, 2021	Please find herewith attached scanned copy of mail dt. 13.01.2021 received from Sri EAS Sarma (Former Secretary to Gol), 14-40-4/1, Gokhale Road, Maharani-peta, Visakhapatnam w.r.t NIMZ by TSIIC, Zaheerabad, Nyalkal (M), Sangareddy district is forwarded for kind information and necessary.	1. EIA study has been conducted as per Terms of Reference (ToR) issued by MoEF&CC vide <b>letter no. F. No. 21-237/2017-IA.III dated March 01, 2018</b> . Following Project Specific studies were carried out as a part of the EIA Study:
<b>10.</b>	Sri. E A S Sarma (Former Secretary to Gol) 14-40-4/1 Gokhale Road, Maharani-peta, Visakhapatnam  Date: 13.01.2021	In his email ( <a href="mailto:eassarma@gmail.com">eassarma@gmail.com</a> ) dated 13-01-2021 sent to <a href="mailto:secy-moef@nic.in">secy-moef@nic.in</a> (Sri R P Gupta), <a href="mailto:cs@telangana.gov.in">cs@telangana.gov.in</a> (Somesh Kumar IAS), <a href="mailto:ms-tspcb@telangana.gov.in">ms-tspcb@telangana.gov.in</a> (Neetu Kumari Prasad), <a href="mailto:vcmd_tsiic@telangana.gov.in">vcmd_tsiic@telangana.gov.in</a> (VCMD TSIIC), and <a href="mailto:brkalapala@gmail.com">brkalapala@gmail.com</a>  These letters addressed to you by Scientists for people, a group of eminent scientists, reveal extensive plagiarism by a consultant company in preparing an EIA report for the Zahirabad MIMZ in Telangana. This is highly disturbing. Instances of plagiarism in the preparation of EIA reports have been on the increase as a result of the laxity in oversight by your Ministry. In the past, I had brought several such instances to the notice of your Ministry, evoking no meaningful response. Tailor-made EIA reports based on cut-and-paste, off-the-shelf portions of the earlier reports make a mockery of the letter and the spirit of Article 48A of the Constitution, the sanctity of the Environment Protection Act and the rationale of the EIA Notifications issued by your Ministry from time to time. The purpose of preparing an EIA report is to make an objective professional appraisal of a project in terms of its impact on the environment and present the same for a meaningful public consultation process. If this procedure is to be belittled and the value of public consultation allowed to be eroded, I see no reason for MEFCC to exist, as the Ministry is expected to play a pivotal role in	<ul style="list-style-type: none"> <li>• Master Plan report including Market &amp; Demand assessment, various External/Internal infrastructure requirements, site specific surveys and investigations, etc., was prepared for the project and summary of project details are presented in chapter 2 of draft EIA report.</li> <li>• Baseline environmental surveys were conducted during winter season (December 2017 to February 2018) by NABL/MoEF&amp;CC accredited laboratory.</li> <li>• Detailed Flora and Fauna Studies were conducted in the project site as well as study area.</li> <li>• One-year micro meteorological data has been obtained from lakes environment</li> <li>• Traffic surveys were conducted to assess the traffic impact and prepared the transportation management plan</li> <li>• Wastewater treatment scheme was prepared based on the sectors proposed in NIMZ</li> <li>• Air quality model studies were conducted using AERMOD software</li> <li>• Social sample survey and stakeholder consultations were conducted among the local people</li> <li>• Emergency evacuation plan was prepared for the park level.</li> </ul> 2. Therefore, it is reiterated, EIA was based on

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
		<p>translating the spirit of Article 48A into reality and make sure that the environmental impacts of a project area accurately assessed and the main stakeholder, namely, the affected community allowed to have a say in decision making. If MEFCC is to discharge that role effectively, it should put in place a robust mechanism to ensure that the public has the benefit of a scientifically prepared EIA report placed before them so that they may provide well-informed feedback on the project. To this extent, by displaying utter indifference to the EIA process, it looks as though your Ministry has forsaken its Constitutional obligation.</p>	<p>several scientific studies carried out for the project. It is pertinent to mention that the project specific impacts are quantified and qualitatively addressed for other parameters. There are some <b>standards practices or Dos and Don'ts which shall</b> be followed during construction as well as operational phases were presented based on consultant data base over and above the project specific aspects. Some of the project specific aspects are indicated below.</p> <ul style="list-style-type: none"> <li>• Impact on Land Environment</li> <li>• Impact on Water Environment (CETPs/STP)/Drainage Pattern</li> <li>• Impact on Air Environment using AERMOD etc.,</li> </ul> <p>3. Similarly, alternative analysis chapter contents on Site alternative as well as Master Plan alternatives are very specific to the project which was claimed as plagiarism which is not correct. As per MOEF&amp;CC OM on plagiarism, declaration should be submitted during EC appraisal and the same shall be submitted by the consultant.</p> <p>4. EIA report has only used the semantics and no data has been used from any previous studies. Hence these aspects shall not be construed as Plagiarism. Common details which are of similar nature for any construction project were only referred to and alleged as plagiarism in the report, whereas the other sections related to project specific studies and mitigation measures were not referred to.</p> <p>5. Many of the sources claimed as plagiarism are consultants own reports. It can be seen that the other source referred such as <a href="http://www.environmentclearance.nic.in/writer_eaddata/Form_B/EC/EIA_EMP/22122016W1O67HJDEIAreport.pdf">http://www.environmentclearance.nic.in/writer_eaddata/Form_B/EC/EIA_EMP/22122016W1O67HJDEIAreport.pdf</a> is the report of another Consultant dated December 2016, who has copied from NIMZ EIA consultant report of EIA/EMP study for Gujarat</p>

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
			<p>SEZ submitted to GSPCB during November, 2014.</p> <ol style="list-style-type: none"> <li>6. Consultants have prepared certain impact/mitigation measures which are of generic nature for area development projects (particularly during construction phase) since many years. This has been used by the consultant in their reports which shall not be construed as Plagiarism.</li> <li>7. EIA report has been evaluated using online/in-house software approved by QCI-NABET/MoEF&amp;CC viz., Plagiarism Checker X.</li> <li>8. Plagiarism Checker X – Report Originality Assessment Overall Similarity:3% Date: Feb 22, 2021</li> <li>9. Regarding KGLNG project, in January 2016, for the complaint raised by the scientist to MoEF&amp;CC, LNTIEL has provided the facts and figures to EAC and same were verified before issuance of EC. Targeting the consultant and client just days before public hearing and EAC meetings by raising same complaint in various media such as numerous newspaper articles, TV channel, emails, tons of letters with same content with different names is not appropriate and shall not be given due importance. This has led to gross misrepresentation to the public.</li> </ol>
<b>11.</b>	<p>Dr. Babu Rao Kalapala H No 4-1-50/2, road No 3, Snehapuri Colony, Hyderabad- 500076 (Scientists for People)</p> <p>Date: 13.01.2021</p>	<p>In his email (<a href="mailto:scientistsforpeople@gmail.com">scientistsforpeople@gmail.com</a>) dated 13-01-2021 sent to <a href="mailto:secy-moef@nic.in">secy-moef@nic.in</a> (Sri R P Gupta), <a href="mailto:cs@telangana.gov.in">cs@telangana.gov.in</a> (Somesh Kumar IAS), <a href="mailto:ms-tpcb@telangana.gov.in">ms-tpcb@telangana.gov.in</a> (Neetu Kumari Prasad), <a href="mailto:vcmd_tsiic@telangana.gov.in">vcmd_tsiic@telangana.gov.in</a> (VCMD TSIIC), and <a href="mailto:ce-iic@telangana.gov.in">ce-iic@telangana.gov.in</a> (Sri Shyam Sunder)</p> <p>TSPCB published a public hearing for Jawahar Khani 5 expansion on 22 January 2021 and the draft EOA is not uploaded till the time I am writing this message. By denying the access to information the EIA notification 2006 is violated On receiving the draft Environmental Impact Assessment</p>	<ol style="list-style-type: none"> <li>1. EIA study has been conducted as per Terms of Reference (ToR) issued by MoEF&amp;CC vide <b>letter no. F. No. 21-237/2017-IA.III dated March 01, 2018</b>. Following Project Specific studies were carried out as a part of the EIA Study: <ul style="list-style-type: none"> <li>• Master Plan report including Market &amp; Demand assessment, various External/Internal infrastructure requirements, site specific surveys and investigations, etc., was prepared for the project and summary of project details are presented in chapter 2 of draft EIA report.</li> <li>• Baseline environmental surveys were conducted</li> </ul> </li> </ol>

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
		<p>report, the above-mentioned authorities expect the MoEF, shall arrange to widely publicize it within their respective jurisdictions requesting the interested persons to send their comments to the concerned regulatory authorities. They shall also make available the draft EIA Report for inspection electronically or otherwise to the public during normal office hours till the public hearing is over. A minimum notice period of 30 (thirty) days shall be provided to the public for furnishing their responses. Unfortunately, TSPCB instead of acting as a regulator to protect the environment and people has been functioning as a promoting agency of the industries. People are denied their rights and the proponents are favoured. TSPCB is also not uploading the minutes of the public hearing in most of the cases. Queries submitted by the citizens must be answered by the proponents and the copy of the answers made available. We do not even know whether our submissions have been sent to EAC. That is the situation today. Such subversion of environment laws by a regulator are a reminder of the sad state of our governance.</p> <p>It is reminded that PCBs are public funded and they have to be responsible to the people that pay their salaries. They cannot act as masters of the people. Please take corrective actions.</p> <p>Our letter on plagiarism in Zaheerabad NIMZ EIA and relevant documents are attached for necessary action.</p>	<p>during winter season (December 2017 to February 2018) by NABL/MoEF&amp;CC accredited laboratory.</p> <ul style="list-style-type: none"> <li>• Detailed Flora and Fauna Studies were conducted in the project site as well as study area.</li> <li>• One-year micro meteorological data has been obtained from lakes environment</li> <li>• Traffic surveys were conducted to assess the traffic impact and prepared the transportation management plan</li> <li>• Wastewater treatment scheme was prepared based on the sectors proposed in NIMZ</li> <li>• Air quality model studies were conducted using AERMOD software</li> <li>• Social sample survey and stakeholder consultations were conducted among the local people</li> <li>• Emergency evacuation plan was prepared for the park level.</li> </ul> <p>2. Therefore, it is reiterated, EIA was based on several scientific studies carried out for the project. It is pertinent to mention that the project specific impacts are quantified and qualitatively addressed for other parameters. There are some <b>standards practices or Dos and Don'ts which shall</b> be followed during construction as well as operational phases were presented based on consultant data base over and above the project specific aspects. Some of the project specific aspects are indicated below.</p> <ul style="list-style-type: none"> <li>• Impact on Land Environment</li> <li>• Impact on Water Environment (CETPs/STP)/Drainage Pattern</li> <li>• Impact on Air Environment using AERMOD etc.,</li> </ul> <p>3. Similarly, alternative analysis chapter contents on Site alternative as well as Master Plan alternatives are very specific to the project which was claimed as plagiarism which is not correct. As per MOEF&amp;CC OM on plagiarism, declaration</p>

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
			<p>should be submitted during EC appraisal and the same shall be submitted by the consultant.</p> <ol style="list-style-type: none"> <li>4. EIA report has only used the semantics and no data has been used from any previous studies. Hence these aspects shall not be construed as Plagiarism. Common details which are of similar nature for any construction project were only referred to and alleged as plagiarism in the report, whereas the other sections related to project specific studies and mitigation measures were not referred to.</li> <li>5. Many of the sources claimed as plagiarism are consultants own reports. It can be seen that the other source referred such as <a href="http://www.environmentclearance.nic.in/writer_eaddata/Form_B/EC/EIA_EMP/22122016W1067HJDEIAreport.pdf">http://www.environmentclearance.nic.in/writer_eaddata/Form_B/EC/EIA_EMP/22122016W1067HJDEIAreport.pdf</a> is the report of another Consultant dated December 2016, who has copied from NIMZ EIA consultant report of EIA/EMP study for Gujarat SEZ submitted to GSPCB during November, 2014.</li> <li>6. Consultants have prepared certain impact/mitigation measures which are of generic nature for area development projects (particularly during construction phase) since many years. This has been used by the consultant in their reports which shall not be construed as Plagiarism.</li> <li>7. EIA report has been evaluated using online/in-house software approved by QCI-NABET/MoEF&amp;CC viz., Plagiarism Checker X.</li> <li>8. Plagiarism Checker X – Report Originality Assessment Overall Similarity:3% Date: Feb 22, 2021</li> <li>9. Regarding KGLNG project, in January 2016, for the complaint raised by the scientist to MoEF&amp;CC, LNTIEL has provided the facts and figures to EAC and same were verified before issuance of EC. Targeting the consultant and</li> </ol>

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
			<p>client just days before public hearing and EAC meetings by raising same complaint in various media such as numerous newspaper articles, TV channel, emails, tons of letters with same content with different names is not appropriate and shall not be given due importance. This has led to gross misrepresentation to the public.</p>
<b>12.</b>	<p>From: Gangadhar Goje&lt;see-uh4-tspcb@telangana.gov.in&gt; Date: January 25, 2021</p>	<p>Please find herewith attached scanned copy of mail dt. 20.01.2021 received from Ms. Nikita Khampari w.r.t NIMZ by TSIIC, Zaheerabad, Nyalkal (M), Sangareddy district is forwarded for kind information and necessary.</p>	<ol style="list-style-type: none"> <li>1. TSIIC is the nodal agency for creating the infrastructure to attract industrial investments into the state of Telangana for creating employment opportunities and economic growth of Telangana. TSIIC is not a private firm or developer to earn profit by selling land.</li> </ol>
<b>13.</b>	<p>Sri Nikita Khamparia, Concerned citizen Date: 20/01/2021</p>	<p>As a concerned citizen, it is alarming to read an article in the Times of India Hyderabad edition, dated Monday, January 18, 2021 about the extensive plagiarism in the draft EIA/EMP report prepared by L&amp;T Infra Engineering for the proposed National Investment and Manufacturing Zone (NIMZ) project, Zaheerabad.</p> <p>For this proposed project, 12,635.14 acres of agricultural, dry, arid scrubland and grasslands are set to be taken away from thousands of poor farmers at a throw-away compensation. These lands have been sustaining people and myriad life forms for generations. If such EIA reports are the basis for appraisal by EACs and final grant of Environmental Clearances by the MOEF&amp;CC, then one has to question the whole process of EIA and who it sets to favour.</p> <p><b>Falsification of data ‘and plagiarised information put up for a Public Hearing where vulnerable people are deprived of facts, right to information, participation and justice, amounts to fooling people.</b></p> <p><b>“Scientists for People”, a group of retired scientists has looked at three crucial chapters of the draft EIA report - Anticipated Impacts, Alternative Studies and Environmental Management Plan in detail. They have highlighted and expressed their shock at the extent of plagiarism in the above-mentioned chapters. “Scientists</b></p>	<ol style="list-style-type: none"> <li>2. TSIIC mandate is to develop Industrial Parks across the state based on the land acquired by the Government. TSIIC creates infrastructure required for the industries. The land will be allotted to prospective industries duly factoring the cost of infrastructure</li> <li>3. The project site is falling in 14 villages of Nyalkal mandal and 3 villages of Jharasangam mandal. Total population of these villages is 30536 with 5846 households. Out of the total households, 2031 households are affected due to loss of land.</li> <li>4. Four thandas namely Rukmapur, Chillapale, Mungi and Chandranai are falling in the project site. Out of these four thandas, Rukmapur Tanda could only be surveyed having 56 households for which data has been presented in the EIA report.</li> <li>5. The objective of the socio-economic surveys is to get an understanding of the social economic profile in the study area and in this process random survey are initiated which also include consultation. The data gathered will be used for analysing the profile which in turn will be used for listing out the CSR activities.</li> <li>6. <b>Survey couldn’t be conducted among other hamlets/thandas located due to local issues and surveyed data to the extent was presented in the report. However, consultant conducted informal</b></li> </ol>

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
		<p>for People” has also asked the MoEF&amp;CC to verify the plagiarism report they have submitted and take quick action to disqualify the EIA as per the OM. Hence, I request your immediate action to reject the draft EIA at this early stage to avoid unnecessary legal complications and loss of time later.</p>	<p>consultations among the public during March 16 &amp; 17, 2018 and from April 16 &amp; 17, 2018 and explained the project in detail and collected their needs/requirements to be fulfilled and details are given in EIA report. The consultant is obliged to report the proceedings in the report. This is not to demean or undermine the local populace.</p> <ol style="list-style-type: none"> <li>7. It may be noted that the EIA Study has been carried out for an Industrial Park development project and not for a specific Industry.</li> <li>8. Pollutant loads for wastewater, solid waste are estimated by calculating the area factor based on the database of real time industries operating which are similar in nature of proposed activity. The area factors are calculated with much attention by considering all the specifications and guidelines by the statutory authorities such as <b>CPHEEO, CPCB and with consultant's</b> experience. The assumptions for arriving at the above quantities are provided in the report in section 2.5.1 of EIA report. These are prevailing practices being adopted to estimate the pollutant loads for a Green field Industrial park development project.</li> <li>9. Detailed market and demand assessment was carried out, where in focus sectors, its sub sectors, probable raw materials and products were arrived. Food industry is one of those sectors arrived and the area reserved is around 1410 Acres (11.2%). which is second highest among other industrial sectors proposed and hence the total emissions load is appearing as highest comparatively. As presented in Table 2-4 of Chapter 2 of EIA report, though in general the Food processing industries are not attracting EIA Notification, some of the sub sectors fall under RED category (Both Air &amp; Water Polluting) as defined by CPCB.</li> <li>10. Detailed reply for the allegations made by scientists for people was given above in this table.</li> </ol>

S. No	Name and Place of Stakeholder	Public View or Comments	Response of TSIIC
14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51.	K. Hemalata Date: 22/02/21 Sri B. Indrasena Reddy; Sri Saranamma, Banayya; Sri B. Hanmath Reddy; K. Erappa Date: 22/02/21 Sri S.Sanjeeva Reddy & Navitha; Sri K.Pratap Reddy, Smt K.Navita, Smt Kalavati, & I. Sivareddy, Sri K.Vinayak Reddy, Smt Niraja, Smt Bujjamma, Sri Samuel Mirzapur S/o Kistappa , Sri Makbulmiya, S/o Chunumiya, Dt:11/02/2021 R/o Mamidgi Dt:08/02/2021 Dt:11/02/2021 Smt Bukka Ashabee W/o Naseermiya Sri Veeranna & Sri Machander Dt:11/02/2021 Smt Mallamma, Dt: 11/02/2021 Sri Shivakumar S/o: Kashinath Gangwar Dt: 11/02/2021 Sri Narayana Reddy S/o: Krista Reddy Gangwar Dt: 11/02/2021 Sri Vijay Kumar S/o:Kistappa Dt: 11/02/2021 Gandla Prabhu S/o: Manikappa Dt:11/02/2021 Sri Pallegolla Shivanna S/o: Radappa	As a farmer and a resident, one of the fortunate few who got a chance to attend the Environmental Public Hearing for the NIMZ Zaheerabad. I am deeply worried about hoe PH was conducted amidst huge police presence – a PH with more police than farmers. Sir, a hearing meant for the people where we the project affected people of the area have been prevented from attending is undemocratic, unfair and speaks a lot about who this project intends to favour. This was a PH without the affected public. My fellow farmers and residents are worried about this project. This is not something we have asked, but yet the government and all its functionaries want to foist this kind of development on us. You want us to give away our productive lands at throwaway prices, without attending a hearing, without understanding what a project of this scale entails – just to trust what has been presented at the hearing. This is not something we are willing to do. The TSIIC VC&MD along with the public representatives all spoke the same language – how the project is prestigious, a pride and one that is only going to help our lives, transform our area into city, just like Hyderabad. Nobody has even cared to ask or consult if we want this. The draft EIA report is in English and most of the farmers <b>and residents don't know the language. How we to understand what are is said?</b> Apart from being told to us that this project will benefit us and that we should give away our lands, we did not understand any of the details presented at the hearing. There were promises of jobs 2.66 lakhs, but without even telling us how many companies will be established, how are we to believe this? What type of jobs will be given to us, especially middle aged farmers and agricultural workers in these industries? It was said there will be wide four lane roads created for <b>this project, improved connectivity and much more. Isn't this what the government supposed to do?</b> It was also said that no villages will be displayed and the TSIIC VC&MD was very proud of this, but what will be	<ol style="list-style-type: none"> <li>Public hearing was conducted following the strict National Directives for COVID-19 Management and the relevant guidelines issued by the Ministry of Home Affairs, Ministry of Health &amp; Family Welfare, GoI, and Telangana State Government (GoTS), special arrangements were made for conducting public hearing such as seating arrangements maintaining at least 2 m distance, face masks and hand sanitizers were distributed for every participant, People are requested to maintain proper physical distance and requested all the participants to use face masks and stage, speaker podium stands and mikes were sanitized frequently.</li> <li>The objective of the Public Hearing to seek the views of the public and address them accordingly in the EIA Report. Hence the local populace were requested to submit their concerns during the Public Hearing.</li> <li>Precautionary measures were taken by district administration to prevent any anticipated law and order issues.</li> <li>Public hearing was attended by more than 870 people and it was presided over by district magistrate and collector.</li> <li>Nearly 68 number of speakers expressed their views on the proposed project and nearly 72 written representations were received from the various individuals and organizations about the proposed development.</li> <li>As per directions of district magistrate, law &amp; order was maintained. This is not to cause any disturbance to public (project affected people/stakeholders) who are really interested to participate in the hearing and express their views</li> <li>EIA report, executive summaries in English and Telugu languages were displayed at 17 Gram panchayat offices namely Ganeshpur, Husselli, Ganjoti, Mungi, Rukmapur, Hadnur, Namtabad,</li> </ol>

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52.	Smt Nirmalamma	deprived of our lands do enclosed among polluting industries. We will be subjected to a life in a gas chamber that degrades the quality of our life. It is to avoid attracting the LARR Act 2013 that TSIIC has come up with a plan to barricade our villages with polluting industries all around and recreate the Auschwitz like concentration camps. What will happen to the people who depend on <b>land but don't own land? They didn't even find a mention</b> amongst the people who will be eligible for jobs by TSIIC VC & MD.	Mamidigi, Kalbemal, Basanthpur, Metalkunta, Gangwar, Rejinthal and Malkanpahad villages of Nyalkal (M) and Chilepalle, Yelgoi & Bardipur villages of Jharasangam (M) ; Sangareddy district collector office; District Industries Centre; Zilla Parishad; TSPCB office and website; Department of EFS&T, Telangana Secretariat; Tahshildhar office etc. from December 19, 2020 onwards, i.e., 30 days before the public hearing.
53.	W/o: Krista Reddy Gangwar		
54.	Dt: 11/02/2021		
55.	Sri Awadooth Reddy		
	S/o: Krista Reddy Gangwar		
	Dt: 11/02/2021		
	Sri Bukka Naseer		
	S/o: Chunumiya		
	Dt: 11/02/2021		
	Sri Rukmini		
	W/o: Narsimulu	Sir, I humbly submit that I am not willing to part with my land that has been source of livelihood for my family for generations, simply because some officials at TSIIC paid by us conceived a project to justify their existence.	8. Environmental Public Hearing Notification in the Telugu language was published in Sakshi Paper, Hyderabad Edition dated December 19, 2020, and in the English language was published in The Hindu newspaper, Hyderabad Edition dated December 19, 2020. Revenue department is carrying out land acquisition in transparent manner by duly following the prevailing rules and regulations of the state.
	Dt: 11/02/2021	I demand that my right to life guaranteed under the constitution be respected. Taking away my land forcibly is same as killing me and my family whatever name you may give to it.	
	Kistaiah		
	S/o: Yenkappa		
	Dt: 11/02/2021		
	Smt Sangamma		
	Dt: 10/02/2021		
	Smt Potpalli Anjamma		
	W/o: Chandragonda	Sir, I am a farmer hailing from Mamidgi village, a village under NIMZ Project. I am writing this letter to bring your notice that the ground reality of situation that took place when called for public hearing by government officials.	9. Compensation for land and structure would be paid as per G.O. 123 issued by GoTS and Telangana State RFCCT LAR&R Act 2016 in line with RFCT LAR&R Central Act, 2013.
	Dt: 11/02/2021		
	Sri Sadakali		
	S/o: Mahaboobsab Beluru	The public hearing held for environment clearance to NIMZ witnessed uproar from landowners who wished to bring their concerns to the notice of officers, were blocked by heavy police force deployed. Farmers were beaten and put behind the bar who were on their way to attend the meeting. No particular reason was given by the police force to the farmers arrested. Public hearing meeting was held to address the concerns of victims, but victims were blocked and stopped from attending meeting. Farmers followed all the guidelines issued by collector Hanumantha Rao to attend public hearing, but their voice is curbed. Public hearing meeting was not attended by the victims. The concern of the public is not heard, now or in future we oppose this project since it is taking away the livelihoods of 17 village people. The farmers were not given an opportunity of understanding the projects taking in their hands. We deny giving our lands. Kindly look in your food producer, farmers concerns and make sure that	10. Compensation for the lands involved in land acquisition for NIMZ would be decided by the District Collector and TSIIC would pay the compensation accordingly.
56.	Dt: 11/02/2021		11. NIMZ is envisaged to generate direct and indirect employment of 2,66,000 which will benefit the region tremendously. Local people will be getting a large employment opportunity.
	Prakasham		12. TSIIC expressed that minimum one job per project affected family will be given due to loss of land (PAF). In case, more number of eligible personnel is there in the PAF, they too would be given preference for employment based on their skill set.
	S/o: Kistappa		13. Skill development centre such as ITI will be developed and necessary training will be imparted to meet the requirement of industries coming up in NIMZ so that local people will be
	Dt: 11/02/2021		
	Sri S. Barnabas		
	S/o: Sakrappa		
	Dt: 11/02/2021		
	Potpalli Siddanna		
	S/o: Chandragonda		
	Dt: 11/02/2021		
	Gandla Jagadevi		
	W/o: Sangameshwar		
	Dt: 11/02/2021		
	Sri Potapalli Naganna		
	S/o: Chandragonda		
	Dt: 11/02/2021		
	Smt Natkari Paramma		
	W/o: Pandu		

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
	Dt:11/02/2021 Mohd Ibrahim S/o: Maulana Dt:11/02/2021 Sri Potpalli Narsimulu S/o: Chandragonda Dt:11/02/2021 Smt D.Chandramma W/o: Beemanna Sri D.Amruth S/o: Rukmanna Sri Buthapilli Rajanarsimha S/o: Galaiah Dt:11/02/2021 Sri D.Eshwar S/o Rukmanna Sri Najminbegum W/o: Ipthekar Ahmed Sri Potpalli Satyamma W/o: Narsimulu Dt:10/02/2021 Sri Natkari Munyamma W/o: Late Prabhu Dt:11/02/2021 Sri Shaheen Sulthana W/o: Makbulmiya Dt:11/02/2021	meeting was not success. We expect a solution as soon as possible.	benefitted by the employment in the industries coming up in NIMZ
<b>57.</b> <b>58.</b> <b>59.</b> <b>60.</b> <b>61.</b>	Sri. Ganapathi Deekshith Sri. Ranga Prasad Sri. Puneeth Deekshith Sri. S. Gunda Reddy Sri. S. Narsimha Reddy Date: 09.01.2021	In their written petition dated January 09, 2021, to Secretary, MoEF&CC; Chief Secretary, State of Telangana; Member Secretary, TSPCB; The Collector and District Magistrate, Sangareddy District; and Environment Engineer, TSPCB Regional Office-Sangareddy 1. We the undersigned are the residents of the affected villages of proposed NIMZ-Zaheerabad, Sangareddy District, State of Telangana. We came to know about the proposed public hearing scheduled on 20.01.2021 as part of Environment Impact Assessment process for the above proposed project. We have obtained copies of EIA report from the website of state pollution control board and have perused the same,	EIA study has been conducted as per Terms of Reference (ToR) issued by MoEF&CC vide letter no. F. No. 21-237/2017-IA.III dated March 01, 2018. Following studies were conducted as a part of the EIA Study: <ul style="list-style-type: none"> <li>• Master Plan report including Market &amp; Demand assessment, various External/Internal infrastructure requirements, surveys and investigations, etc., was prepared for the project and summary of project details are presented in chapter 2 of draft EIA report.</li> <li>• Baseline environmental surveys were conducted</li> </ul>

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		<p>so as to file our objections and suggestions. However, after reading the said report and after obtaining expert opinion on the subject matter and contents therein, we are shocked to note that the said draft EIA report is incomplete, inadequate, not based on facts or thorough study or consultations. We also found that many portions of the report are straight away lifted from the reports of the other projects.</p> <p>It is unfortunate that, Public consultation process is reduced to a one day public hearing with hardly any real opportunity for us to present our woes. First it was schemed to conduct the PH during the pandemic to deny us the right to participate in the public hearing. It was done so as the VC and MD, TSIIC, the proponent is associated with TSPCB as a member of the board, which is clear case of conflict of interest. Thanks to the Telangana High Court that we got some relief till now. A nearly 500 page EIA report in English is made the basis for the environmental public hearing and there is no process to explain the contents to us. We find that the whole EIA draft document has no real scientific basis and is just filled up to meet the requirements of the paying client.</p> <p>Draft EIA report has a cooked up social impact assessment in contradiction to the statement of the consultant <b>“During the survey the locals objected the survey, one Thanda i.e., Suryanaik Tanda (Rukmapur Thanda) could only be surveyed and other villagers and settlements were boycotted survey and they even tried to physically handle the enumerators and social experts. All the impacted and affected villagers agitated to withdraw the project as people of the surrounding area are losing their agricultural land.” (Page 7-43 of Draft EIA)</b> We see this as an attempt to blame the people for their own shortcomings to conduct an effective Socio-economic study as part of EIA. The subject lands are shown as largely fallow and unproductive, whereas the said lands are highly fertile with crops like Sugarcane, ginger, turmeric and cotton etc., being cultivated. The chapter related to Socio-Economic conditions of the affected area do not at all reflect the reality on the ground.</p>	<p>during winter season (December 2017 to February 2018) by NABET/MoEF&amp;CC accredited laboratory</p> <ul style="list-style-type: none"> <li>• Detailed Flora and Fauna Studies were conducted in the project site as well as study area.</li> <li>• One-year (2017) micro metrological data has been obtained from lakes environment</li> <li>• Traffic surveys were conducted to assess the traffic impact and prepared the transportation management plan</li> <li>• Wastewater treatment mechanism was prepared based on the sectors proposed in NIMZ</li> <li>• Air quality model studies were conducted using AERMOD software which is acceptable to MoEF&amp;CC</li> <li>• Socio-economic sample survey and stakeholder consultations were conducted among the local people</li> <li>• Emergency evacuation plan was prepared for the park level as a part of preliminary risk assessment</li> </ul> <p>• Therefore, it is reiterated, the prepared EIA was based on several studies carried out for the project. It is pertinent to mention that most of the observations given as Plagiarism are related to the other reports presented by the same consultant and those are related to some <b>standards practices or Dos and Don'ts which shall be followed during Construction as well as operational phases based on consultant data base over and above the project specific aspects.</b></p> <ul style="list-style-type: none"> <li>• EIA report has only used the semantics and no data has been used from any previous studies. Hence these aspects shall not be construed as Plagiarism. Common details which are of similar nature for any construction project were only referred to and alleged as plagiarism in the</li> </ul>

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		<p>We further noted that Section 7 of the draft EIA merely contains copy pasted and recycled content from other reports of the consultant, particularly from EIA report for AP-ADE Park, Palasamudram Village, Gorantla Mandal, Anantapuramu District. Our future is being decided based on such falsified studies. Several other portions of this section are merely copied from various other sources like HSE document on Portland Cement Dust, hazard Assessment Document, HD75.7 available at- <a href="https://www.hse.gov.uk/pubns/web/portlandcement.pdf">https://www.hse.gov.uk/pubns/web/portlandcement.pdf</a>.</p> <p><a href="https://www.maintworld.com/HSE/Hazards-in-the-Food-Processing-Industry#:~:text=Throughout%20United%20States%2C%20anhydrous,and%20other%20food%20processing%20plants">https://www.maintworld.com/HSE/Hazards-in-the-Food-Processing-Industry#:~:text=Throughout%20United%20States%2C%20anhydrous,and%20other%20food%20processing%20plants</a></p> <p>The proposal of establishing NIMZ deprives us of our precious and productive agricultural land and sandwiches us within the NIMZ for continuous exposure to harmful and life threatening pollutants day and night. We have learnt nothing from Bhopal tragedy while the entire world did. Our lands are being taken forcibly for the broker corporation to profit from them. We strongly object to taking away our right to life for the industrial model that benefits a few and causes immense hardships to a majority including severe environmental impacts. The proposed land use change also deprives thousands of families of existing employment opportunities in the agriculture and related sectors, who will not get any employment opportunities in the proposed industries. All the numbers generated claiming in-house data are fictitious and have no factual basis. Pollution loads are specific to individual industries that are likely to come up there and not some imaginary numbers. One cannot calculate the industrial wastewater quantities on the basis of land area as m<sup>3</sup>/ha/day like the municipal sewerage. Solid waste shown is too low and a single industry in the metals sector can produce more waste than projected. A total of 291 industrial units from 7 sectors are proposed</p>	<p>report, whereas the other sections related to project specific studies and mitigation measures were not referred to.</p> <ul style="list-style-type: none"> <li>Many of the sources claimed as plagiarism are <b>consultant's own reports. It can be seen that the other source referred such as <a href="http://www.environmentclearance.nic.in/writer_eaddata/Form/B/EC/EIA_EMP/22122016W1O67HJDEIAreport.pdf">http://www.environmentclearance.nic.in/writer_eaddata/Form/B/EC/EIA_EMP/22122016W1O67HJDEIAreport.pdf</a></b> is the report of another Consultant dated December 2016, who has copied from NIMZ EIA consultant report of EIA/EMP study for Gujarat SEZ submitted to GSPCB during November, 2014.</li> <li>EIA report has only used the semantics and no data has been used from any previous studies. Hence these aspects shall not be construed as Plagiarism. Common details which are of similar nature for any construction project were only referred to and alleged as plagiarism in the report, whereas the other sections related to project specific studies and mitigation measures were not referred to.</li> <li>As per the MoEF&amp;CC Office Memorandum vide F.No.22-25/2020-IA.III dated 14<sup>th</sup> September 2020, public hearing for the projects are to be conducted as per procedure laid down in EIA notification, 2006 (as amended). During July, 2020 public hearing was contemplated with all COVID safety norms, but with the orders of honourable high court it was stalled.</li> <li>As per the procedure laid down by MoEF&amp;CC, Executive summary in local and English languages, Draft EIA report was displayed in all concerned village panchayats, collector office, Zilla Parishad etc., since nearly 30 days for the public to review and provide concerns during the public hearing and also in written form</li> </ul>

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		<p>without any details. Not a single steam boiler is shown for the entire NIMZ.</p> <p>Subjecting our lives to such false EIA reports is unacceptable and you will be erring as public servants in not acting to correct the situation by first studying the report and put up only valid report for public hearing. We demand that the present draft EIA report be rejected and proper report prepared with extensive and transparent public consultations, Public hearing should be held based on a valid EIA report presenting the impacts realistically. Therefore, we request that the public hearing scheduled on 20<sup>th</sup> January 2021 should be postponed indefinitely, till a new and proper EIA report is prepared and submitted.</p>	<p>(opportunity has already been utilised by the claimant). During the hearing process under the chairmanship of district collector, once again project components and environmental impacts will be explained. EIA study has been carried out as per Terms of Reference (ToR) issued by MoEF&amp;CC.</p> <ul style="list-style-type: none"> <li>• The suggestions given by the Public during the Public Hearing were addressed and ensured that they were reflected in the final EIA Report</li> <li>• The objective of the socio-economic surveys is to get an understanding of the social economic profile in the study area and in this process random survey are initiated which also include consultation. The data gathered will be used for analysing the profile which in turn will be used for listing out the CSR activities. Therefore, consultants have conducted informal consultations to explain the project details and arrive the local people apprehensions, stake holder consultations conducted during March 16 &amp; 17, 2018 and from April 16 &amp; 17, 2018.</li> <li>• <b>Survey couldn't be conducted among all the hamlets/thandas</b> located within the project site due to local issues and surveyed data was presented in the report. However, consultant has conducted informal consultations among the public and explained the project in detail and collected their needs/requirements to be fulfilled and details are given in EIA report. The consultant is obliged to report the proceedings in the report hence the above statement was included. This is not to demean or undermine the local populace</li> <li>• The land use of the project site is presented in Section 3.4.2.1 of Chapter 3. The existing land-use is studied as per the National Remote Sensing <b>Centre (NRSC)'s 2019-20</b> information. It is found that around 44.6% of the total project land is</li> </ul>

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			<p>Scrub land followed by agriculture crop land of 27.65%. The predominant land use of the project site was observed as Scrub land, agricultural crop land, agricultural fallow land as well as agricultural plantations.</p> <ul style="list-style-type: none"> <li>• It is pertinent to mention that most of the observations given as Plagiarism are related to the other reports presented by the same consultant and those are related to some <b>standards practices or Dos and Don'ts which shall</b> be followed during Construction as well as operational phases based on consultant data base over and above the project specific aspects.</li> <li>• EIA report has only used the semantics and no data has been used from any previous studies. Hence these aspects shall not be construed as Plagiarism. Common details which are of similar nature for any construction project were only referred to and alleged as plagiarism in the report, whereas the other sections related to project specific studies and mitigation measures were not referred to.</li> <li>• Many of the sources claimed as plagiarism are consultants own reports. It can be seen that the and other sources referred such as <a href="http://www.environmentclearance.nic.in/writer/eaddata/Form">http://www.environmentclearance.nic.in/writer/eaddata/Form</a> B/EC/EIA_EMP/22122016W1O67HJDEIAreport .pdf subjected to December 2016 year is the report of another Consultant dated December 2016, who has copied from whereas this is write-up of NIMZ EIA consultant from the report of EIA/EMP study for Gujarat SEZ submitted to GSPCB during November, 2014. Hence this shall not be construed as Plagiarism.</li> <li>• Other sources were referred to indicate the hazards related to various industrial sectors such as Non-Metallic minerals and Food Processing industries which is known and common hazards</li> </ul>

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			<p>from the respective industrial sectors.</p> <ul style="list-style-type: none"> <li>• As part of the EIA, the existing land-use is studied as per the National Remote Sensing Centre (NRSC)'s 2019-20 information. It is found that around 44.6% of the total project land is Scrub land followed by agriculture crop land of 27.65%. The scrub land percentage within the project land is more than the land under agriculture crop.</li> <li>• All the Industries proposed in the NIMZ shall adhere the emission/discharge/other standards stipulated by the statutory authorities. Proposed post environmental monitoring programme shall also ensure the monitoring the environment parameters regularly and take necessary actions as appropriate. In addition, Majority of the sectors proposed as part of the project do not even attract EIA notification (sectors such as Electrical equipment, food &amp; agro processing, non-metallic minerals (excluding glass), Automobile and Machinery). These proposed sectors are less polluting in nature compared to Pharmaceutical, Chemicals, Bulk Drugs, etc which is not a part of this project.</li> <li>• Master Plan has been prepared after taking into consideration all the required norms and parameters. Uniform peripheral 15m wide green buffer is planned at the project boundary <b>(Indicated in figure as box 1) as per Section 7(c), point no 9 of Standard ToR by MoEF&amp;CC, March 2015</b>. All the industrial plots are planned clear 100m away from the existing thandas and settlements. Also, industrial housing is planned around existing thandas for better compatibility (Indicated in figure as box 2). All the eco-sensitive areas such as existing water bodies and streams are clearly retained in the master plan and TSIIC is not intending to</li> </ul>

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			<p>disturb them in totality. However, along such features adequate buffers of 15m on all around it is proposed which is more than the statutory requirement of 9m to be provided as per G.O. Ms. 7 dated 05.01.2016.</p> <ul style="list-style-type: none"> <li>• The planned and proposed buffers will have positive impact on the region as a whole.</li> <li>• The region has already witnessed the benefit of establishment of similar such industries near Zaheerabad which are less-polluting in nature. These industries will generate large employment opportunities (direct and indirect). Food and Agro processing sector is also proposed in NIMZ which will complement the existing agricultural activities prevailing in the region. This will actually result into quick benefits if such industries are established in NIMZ.</li> <li>• NIMZ is envisaged to generate direct and indirect employment of 2,66,000 which will benefit the region tremendously. Local people will be getting a large employment opportunity. NIMZ is expected to generate investment of Rs. 44,000 crores.</li> <li>• The water /wastewater/solid waste quantities are estimated by calculating the area factor based on the database of real time industries operating which are similar in nature of proposed activity. The area factors are calculated with much attention by considering all the specifications and guidelines by the statutory authorities and also by <b>the consultant's experience. The assumptions for</b> arriving at the above quantities are provided in the report in section 2.5.1 of EIA report.</li> <li>• These are standard practices being adopted across the globe to estimate the wastewater generation for an industrial park which is</li> </ul>

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			<p>planned with certain assumptions and the numbers arrived will be of worst-case scenario to prepare the management to handle the crisis at any point of time. Till now the estimations made for any project were not exceeded and all are within the derived values.</p> <ul style="list-style-type: none"> <li>• The basis for arriving air pollution loads for the different sectors of industries were presented in Section 4.4.2.1 of Chapter 4. As presented in Section 4.2 of Chapter 4, the Point sources of the <b>Member industries' Plots proposed in NIMZ</b> including process and boilers.</li> <li>• The EIA study is being carried out for Industrial area development and not for a Specific Industry therefore there is no need for the consultant to go into netegrity of suggesting Steam Boilers etc. for the industries. It is also to be noticed that the number of sectors / industries are arrived through demand assessment studies, which are likely to come into the region. As per the requirements, the industrial units will establish captive facilities suitable to their production requirements. It is also to be noticed that TSIIC provides avenue for attracting industrial investments and is no way concerned in establishing industrial units.</li> <li>• The subject report is Environmental Impact Assessment report wherein the project impact on the Environment is assessed. This report takes into consideration the proposed activities envisaged through the project and do not attempt to propose any infrastructure. Individual industries depending upon their requirement will make necessary arrangements of steam generation. Hence as part of the project infrastructure centralised steam generation is not envisaged.</li> <li>• Draft EIA report submitted for the Public</li> </ul>

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
			<p>Hearing is prepared by team of NABET Accredited EIA Functional Area Experts under the supervision of NABET Accredited EIA coordinator by following the guidelines and applicable acts as per the statutory requirements strictly.</p> <ul style="list-style-type: none"> <li>• The objective of the Public Hearing to seek the views of the public and address them accordingly in the EIA Report. Hence the local populace were requested to submit their concerns during the Public Hearing.</li> <li>• EIA study has been conducted as per Terms of Reference (ToR) issued by MoEF&amp;CC vide <b>letter no. F. No. 21-237/2017-IA.III dated March 01, 2018</b>. Following studies were conducted as a part of the EIA Study:</li> <li>• Master Plan report including Market &amp; Demand assessment, various External/Internal infrastructure requirements, surveys and investigations, etc., was prepared for the project and summary of project details are presented in chapter 2 of draft EIA report.</li> <li>• Baseline environmental surveys were conducted during winter season (December 2017 to February 2018) by NABET /MoEF&amp;CC accredited laboratory.</li> <li>• Detailed Flora and Fauna Studies were conducted in the project site as well as study area.</li> <li>• One-year micro metrological data has been obtained from lakes environment.</li> <li>• Traffic surveys were conducted to assess the traffic impact and prepared the transportation management plan</li> <li>• Wastewater treatment mechanism was prepared based on the sectors proposed in NIMZ.</li> <li>• Air quality model studies were conducted using AERMOD software.</li> </ul>

S. No	Name and Place of Stakeholder	Public View or Comments	Response of TSIIC
			<ul style="list-style-type: none"> <li>• Social sample survey and stakeholder consultations were conducted among the local people</li> <li>• Emergency evacuation plan was prepared for the park level.</li> <li>• Therefore, it is reiterated, the prepared EIA was based on several studies carried out for the project. It is pertinent to mention that the project specific impacts are quantified wherever possible and qualitatively addressed for other parameters. There are some standards practices or Dos and Don'ts which shall be followed during Construction as well as operational phases were presented based on consultant data base over and above the project specific aspects.</li> <li>• <b>It is pertinent to mention that most of the observations given as Plagiarism are related to the other reports presented by the same consultant and those are related to some standards practices or Dos and Don'ts which shall be followed during Construction as well as operational phases based on consultant data base over and above the project specific aspects.</b></li> <li>• <b>EIA report has only used the semantics and no data has been used from any previous studies. Hence these aspects shall not be construed as Plagiarism. Common details which are of similar nature for any construction project were only referred to and alleged as plagiarism in the report, whereas the other sections related to project specific studies and mitigation measures were not referred to.</b></li> <li>• <b>Many of the sources claimed as plagiarism are consultants own reports. It can be seen that the other source referred such as</b></li> </ul>

S. No	Name and Place of Stakeholder	Public View or Comments	Response of TSIIC
			<p><a href="http://www.environmentclearance.nic.in/writereaddata/FormB/EC/EIA_EMP/22122016W1067HJDEIAReport.pdf">http://www.environmentclearance.nic.in/writereaddata/FormB/EC/EIA_EMP/22122016W1067HJDEIAReport.pdf</a> is the report of another Consultant dated December 2016, who has copied from NIMZ EIA consultant report of EIA/EMP study for Gujarat SEZ submitted to GSPCB during November, 2014.</p> <ul style="list-style-type: none"> <li>• Hence this shall not be construed as Plagiarism.</li> <li>• With all due respect to the constitution, MoEF&amp;CC has derived robust public consultation process with a combination of public hearing at project site with a notice period of 30 days after displaying the project documents for their review and comments, if any, at all village panchayats, MRO, District collector, Zilla Parishad etc. Also public are free to provide their concerns in written form which is also a part of public consultation.</li> <li>• The EIA documents are displayed in MoEF&amp;CC and concerned pollution control board websites with a motive of transparency.</li> <li>• Also, it is to mention that land acquisition is being carried out in transparent manner and private land acquisition is through direct purchase from the land owner through direct consent and negotiation. Government land is under process of transfer for the project. Compensation for land and structure are paid as per G.O. 123 issued by GoTS and Telangana State RFCCT LAR&amp;R Act 2016 in line with RFCCT LAR&amp;R Central Act, 2013.</li> <li>• “Telangana State Industrial Infrastructure Corporation (TSIIC) is an undertaking of government of Telangana State”. The Consultancy is awarded by duly following</li> </ul>

<b>S. No</b>	<b>Name and Place of Stakeholder</b>	<b>Public View or Comments</b>	<b>Response of TSIIC</b>
			<p>transparent tendering process in which technical evaluation has been carried out for the bids received and then only consultant was chosen for carrying out the EIA study. The firm entrusted for EIA has been selected through a Quality cum Cost based selection and not on soul source basis. The firm is a reputed professional management firm with adequate experience in this field.</p> <ul style="list-style-type: none"> <li>• It may be noted that there is a NABET Accredited system to audit the firms who are into EIA Consultancy. The auditors at length scrutiny the consultants, sector experts and the works carried out by them.</li> </ul>

**ANNEXURE -2**



STATEMENT SHOWING THE LAND ACQUISITION REPORT ON NIMZ - PROJECT ZAHEERABAD AS ON 31.07.2021

VILLAGE: BARDIPUR

MANDAL : JHARASANGAM

DISTRICT: SANGAREDDY

Sl.No.	Name of the Village	Private Land ( Patta )			Assigned Land			Un-Assigned Land			Grand Total			Remarks.
		Acquired	Acquired by TSIIC	Total	Acquired	Acquired by TSIIC	Total	Acquired	Acquired by TSIIC	Total	Acquired	Acquired by TSIIC	Total	
1	2	3	4	5 = (3+4)	6	7	8 = (6+7)	9	10	11 = (9+10)	12 (3+6+9)	13 (4+7+10)	14= (12+13)	15
1	Bardipur	139.38	90.17	230.15	201.24	13.29	215.13	0	0	0	341.22	104.06	445.28	

Remarks :-1. Private (Patta) lands: An extent of Acs. **137.12** gts of patta land acquired as per G.O.Ms.No.123 Rev. (JA & LA) Dept. dated. 30.07.2015. The land owners/pattedars have submitted consent in Form-I and Form-II (Affidavit and Agreement) to the District Level Land Procurement Committee headed by the District Collector, Sangareddy . The payment of land compensation was decided in the negotiation committee @ Rs. **5,65,000.00** per acre . Accordingly the payment was paid through individual cheques and the land got registered in favour of TSIIC Ltd., during the year 2016, for establishment of NIMZ Project. A copy of registered document is enclosed. Later on, the Spl. Dy. Collector, (LA) NIMZ - Zaheerabad was acquired an extent of Acs. **1.26** gts and Acs. **1.00** in Sy.No. 17 of patta land as per Act. 30 of 2013 and passed consent award vide Proce.No.53/NIMZ/2018 dated. 27.08.2018 . The land cost paid at Rs. 7,00,000.00 (Rs. Seven Lakhs per acre) . Copy of proceedings is enclosed.

2. Assigned land an extent of Acs. **174.21** gts was procured as per the consent given by the assignees in Form-I and Form - II (Affidavit and Agreement) to the DLLPC headed by the District Collector, Medak at Sangareddy. The DLLPC headed by the District Collector, Sangareddy have been negotiated with the land owners/assignees of respective village and fixed the land compensation @ Rs. 4.00 lakhs per acre for assigned lands under cultivation and Rs. 3.25 Lakhs per acre for un-cultivated (fallow) assigned lands. The Tahsildars have issued notices to the concerned assignees and issued resumption orders for taking possession while making payment through individual cheques and handed over the land to the TSIIC Ltd., through Panchanama. Further an extent of Acs. **23.20** gts of assigned land procured vide Proce.No.53/NIMZ/2018 dated. 27.08.2018 and earlier acquired land missing in Panchanama also taken possession to an ezxtent of Acs. **3.23** gts assigned land in Sy.No. 16 of Bardipur village. The land cost paid at Rs.4,25,000.00 (Rs. Four Lakhs twenty five theousands per acre) . Copy of proceedings is enclosed.

  
 ZONAL MANAGER,  
 TSIC LTD., PATANCHERU

DETAILS OF PATTA LANDS ACQUIRED THROUGH SALE DEEDS AS PER  
G.O.MS.NO. 123 DATED. 30.07.2015

Sl.No.	Name of the Mandal	Name of the Village	Sale deed No.	Date	procured in favour TSIIC Ltd.,	Remarks
1	2	3	4	5	6	7
1	Jharasangam	Bardipur	845	29.01.2016	8.21 ✓	0
2			1338	04.02.2016	10.24	
3			1339	04.02.2016	5.28	
4			1512	06.02.2016	4.16	
5			1511	06.02.2016	12.00	
6			1514	06.02.2016	9.02	
7			1513	06.02.2016	10.22	
8			1518	08.02.2016	11.06	
9			1626	11.02.2016	8.21	
10			1820	12.02.2016	14.25	
11			1819	12.02.2016	29.22	
12			2323	26.02.2016	2.33	
13			2326	27.02.2016	1.06	
14			2860	02.03.2016	2.16	
15			2934	19.03.2016	1.00	
16			3191	26.03.2016	4.00	
17			3192	28.03.2016	1.10	
					<b>137.12</b> ✓	
1	Jharasangam	Cheelapally	884	01.02.2016	8.38	
2			1266	03.02.2016	37.15	
3			1510	03.02.2016	13.15	
4			1337	03.02.2016	15.26	
5			1340	04.02.2016	6.33	
6			1341	05.02.2016	28.22	
7			1342	05.02.2016	13.33	
8			1515	06.02.2016	20.22	
9			1516	06.02.2016	9.26	
10			1517	08.02.2016	11.38	
11			1519	09.02.2016	18.05	
12			1625	10.02.2016	10.26	
13			1624	10.02.2016	8.29	
14			2859	11.02.2016	6.37	
15			2863	05.03.2016	14.32	
16			2928	14.03.2016	1.01	
17			2931	15.03.2016	17.29	
18			5726	19.03.2016	5.28	
					<b>250.15</b>	

Bardipur (v)

1

Doc. No. 845/2016



A  
866  
CS  
871

1711 29.01-2016  
Sl. No. 3000/1/15 के. वेंमना TELANGANA

Sold To P.K. Revati Bai w/o. H. Natarajan N. Patancheru  
For Vendor M/S. Telangana State Industrial Infrastructure  
Corporation Ltd, Raibyl, its Zonal Manager  
P.K. Revati Bai w/o. H. Natarajan N. Patancheru

407195  
Cancelled Stamp Vendor  
L.No. 10017  
R.L. No. 17-10-01-1-122/2014  
Basara, Zaheerabad District,  
Zaheerabad, 502200.  
Phone No. 8440734724

**SALE DEED**

This deed of sale is made and executed at Zaheerabad on this day of 29<sup>th</sup> Day of January, 2016 at Zaheerabad by:

1. **SMT. ALIMETE KRUPANJALI W/o. ALIMETE VEERA BALA KRISHNA REDDY**, aged about 47 years, Caste: O.C., Occ: House Wife, R/o. H.No.9-3-768, Kotaiah Street, Behind Gurudwara, Rejimental Bazar, Secunderabad, Hyderabad District, Telangana State, Ph.No. 9848011610
2. **SRI. PERI UDAY SHANKAR S/O. LATE PERI SUBBA RAO**, aged about 57 years, Caste: O.C., Occ: Agriculture, R/o. H.No.12-11-1270, Boudha Nagar, Warasiguda, Sitaphalmandi, Secunderabad, Hyderabad District, Telangana State, Ph.No. 9690118497

Here-in-after referred to as the "VENDORS" which term, unless otherwise requires shall mean and includes their legal heirs, representatives, administrators and assigns.

A. Koupurajal [Signature]

**Presentation Endorsement:**

Presented in the Office of the Joint Sub-Registrar, Zaheerabad along with the Photographs & Thumb Impressions as required Under Section 32-A of Registration Act, 1908 and fee of Rs. 29440/- paid between the hours of 10 and 11 on the 29th day of JAN, 2016 by Sri Alimete Krupanjali

Execution admitted by (Details of all Executants/Claimants under Sec 32A):

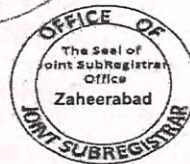
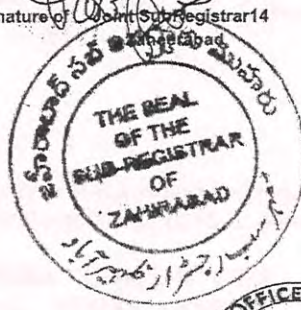
Sl No	Code	Thumb Impression	Photo	Address	Signature/Ink Thumb Impression
1	CL		 P.K.REVATI BAI [R] [1710-1-2016-871]	P.K.REVATI BAI[R]M/S TELANGANA STATE INDUSTRIAL INFRASTRUCTURE CORPORATION LTD., ZONAL MANAGER PATANCHERU ZONE, MEDAK DIST	
2	EX		 PERI UDAY SHANKAR [1710-1-2016-871]	PERI UDAY SHANKAR S/O. LATE PERI SUBBA RAO H.NO. 12-11-1270 BOUDHA NAGAR WARASIGUDA, SITAPHALMANDI SECUNDERABAD HYDERABAD	
3	EX		 ALIMETE KRUPANJALI [1710-1-2016-871]	ALIMETE KRUPANJALI W/O. ALIMETE VEERA BALA KRISHNA REDDY H.NO. 9-3-768 KOTAIAH STREET, BEHIND GURUWARA REJIMENTAL BAZAR SECUNDERABAD HYD	

Identified by Witness:

Sl No	Thumb Impression	Photo	Name & Address	Signature
1		 A.V.BALAKRISHNA R [1710-1-2016-871]	A.V.BALAKRISHNA REDDY HYDERABAD	
2		 P.S JHANU::29/01/20 [1710-1-2016-871]	P.S JHANU HYDERABAD	

29th day of January, 2016

Signature of Joint Sub Registrar 14



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**IN FAVOUR OF**

**M/s. Telangana State Industrial Infrastructure Corporation Ltd.,** Hyderabad an undertaking of Government of Telangana, having registered office at 5-9-58/B, Parishrama Bhavanam, 6<sup>th</sup> floor, Fathemaiddan Road, Hyderabad – 500029 (T.S.) represented by its ZONAL MANAGER, **Smt.P.K. REVATI BAI W/o. M. NATRAJAN**, aged about 51 Years, ZONAL OFFICE, Patancheru Zone, Medak District, (T.S.) who is validly authorized to represent in the matter. PAN No. **AAFCT1093A**. Ph.No.

Here-in-after referred to as the Vendee (which terms unless otherwise requires shall mean and includes its legal Representatives, Administrators and Assigns)

Whereas the Vendors are the Lawful and absolute Owners/Possessors and in enjoyment of the land in **Sy.No. 15/49** , extent **Ac. 02-34 Guntas**, and **Sy. No. 15/22**, Extent **Ac. 01-17 Guntas**, total **Ac. 04-11 Guntas**, Agriculture Land being and having purchased the same through registered sale deed document No.**2744/2012** of Joint Sub-Registrar Office, SRO Zaheerabad, falling in the revenue village Bardipur, Jharasangam Mandal, Medak District, with Pattadar Pass Book No:**137171** and Title Deed No: **137171** issued by Tahsildar, **Jharasangam Mandal**, and **Sy. No.15/2**, Extent **Ac. 02-34 Gts.**, and **Sy. No. 15/21**, Extent **Ac. 01-16 Guntas**, total **Ac. 04-10 Guntas**, Agriculture Land being an having purchased the same through registered sale deed document No.**2743/2012** of Joint Sub-Registrar Office, SRO Zaheerabad, falling in the revenue village Bardipur, Jharasangam Mandal, Medak District, with Pattadar Pass Book No:**117321** and Title Deed No: **117321** issued by Tahsildar, **Jharasangam Mandal**. The Total Extent of Land **Ac. 08-21 Guntas**.

Whereas the Government of Telangana has constituted a committee vide G.O.Ms. No. 123, Revenue (JA & LA), dated: 30.07.2015, which has negotiated with the Vendorss for to purchase the said lands directly from the

*A. K. Koushal*

*[Signature]*

**Endorsement:** Stamp Duty, Transfer Duty, Registration Fee and User Charges are collected as below in respect of this Instrument.

Description of Fee/Duty	In the Form of					Total
	Stamp Papers	Challan u/S 41 of IS Act	Cash	Stamp Duty u/S 16 of IS act	DD/BC/ Pay Order	
Stamp Duty	100	0	0	0	323740	323840
Transfer Duty	NA	0	0	0	0	0
Reg. Fee	NA	0	0	0	29440	29440
User Charges	NA	0	0	0	220	220
<b>Total</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>353400</b>	<b>353500</b>

Rs. 323740/- towards Stamp Duty including T.D under Section 41 of I.S. Act, 1899 and Rs. 29440/- towards Registration Fees on the chargeable value of Rs. 588000/- was paid by the party through DD No. 465432 dated 29-JAN-16 of STATE BANK OF HYDERABAD/SANGAREDDY.

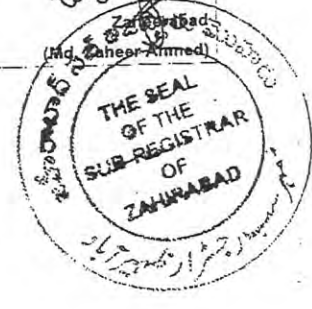
Signature of Registering Officer  
Zaheerabad

Date  
29th day of January, 2016

**Certificate of Registration**

Registered as document no. 845 of 2016 of Book-1 and assigned the identification number 1 - 1710 - 845 - 2016 for Scanning on 29-JAN-16.

Signature of Registering Officer  
Zaheerabad



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Pattadars / Land Owners as per the said G.O, which purchase for the purpose of establishment of **NIMZ** by the Government / Vendors herein. Whereas after negotiations the Vendors herein have agreed to sell the Schedule Property and the Vendee accepted to purchase the said lands @ **Rs.5,65,000/- (Rupees Five Lakhs Sixty Five Thousand Only)** per acre, which is as per the rate fixed by the Negotiation Committee.

Whereas the Revenue Divisional Officer, Sangareddy Division, Medak District, pursuant to the above acceptances has issued proceedings No:**B3/LA/12157/2015**, dated:**28.01.2016** giving the details of the land, the rates and the name of the Pattadars etc and whereas and the name of the Vendors stands at Sl. No. **3, 6, 5 & 4** of the said proceedings.

Whereas the Vendors herein has offered to sell the said property, here-in-after referred the schedule property, more fully described in the schedule hereunder written and more clearly delineated on the plan hereunto annexed to the Sale Deed for a total sale consideration of **Rs.48,16,625/- (Rupees Forty Eight Lakhs Sixteen Thousand Six Hundred Twenty Five Only)** which is all inclusive of amount Agriculture Land Value and the Vendee has accepted the said sale consideration of @ **Rs.48,16,625/- (Rupees Forty Eight Lakhs Sixteen Thousand Six Hundred Twenty Five Only)** and filed affidavit to that effect before the Tahsildar, Jharasangam.

**NOW THIS DEED OF SALE WITNESSETH AS UNDER:**

1. That the Vendee, has paid **Rs.24,15,375/- (Rupees Twenty Four Lakhs Fifteen Thousand Three Hundred Seventy Five Only)**, **Cheque No.465428**, and **Rs.6,09,514.20 (Rupees Six Lakhs Nine Thousand Five Hundred Fourteen and twenty paisa only)** **Cheque No.465429** to **Vendor No.1** and **Rs.24,01,250/- (Rupees Twenty Four Lakhs One Thousand Two Hundred Fifty Only)** **Cheque No. 465430** and **Rs.4,61,700/- (Rupees Four Lakhs Sixty One Thousand Seven Hundred Only)** **Cheque No.**

*A. Kupantall* *Self*

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**465431 to Vendor No.2** towards Sale consideration of the **Sy.No. 15/19** , extent **Ac. 02-34 Guntas**, and **Sy. No. 15/22 2**, Extent **Ac. 01-17 Guntas**, total **Ac. 04-11 Guntas**, and **Sy. No.15/19 2**, Extent **Ac. 02-34 Gts.**, and **Sy. No. 15/22 1**, Extent **Ac. 01-16 Guntas**, total **Ac. 04-10 Guntas**, all cheques are drawn on State Bank of Hyderabad, Sangareddy Branch, and the Vendors are hereby acknowledged the receipt of the said amount.

2. That in consideration of having received the entire sale consideration as mentioned in the preceding clause, the Vendors hereby transfer and assign the absolute and valid title and ownership of the scheduled property admeasuring **Sy.No. 15/19** , extent **Ac. 02-34 Guntas**, and **Sy. No. 15/22 2**, Extent **Ac. 01-17 Guntas**, total **Ac. 04-11 Guntas**, of **Bardipur Village, Jharasangam Mandal**, and **Sy. No.15/19 2**, Extent **Ac. 02-34 Gts.**, and **Sy. No. 15/22 1**, Extent **Ac. 01-16 Guntas**, total **Ac. 04-10 Guntas**, of **Bardipur Village, Jharasangam Mandal**, bounded as stated in the schedule hereunder to the Vendee forever by way of sale, free from all charges, claims, disputes etc and hereafter the vendee shall have absolute right, title & possession of the schedule property more fully described in the schedule hereunder
3. That the Vendors has delivered vacant and peaceful possession of the schedule property to the Vendee on **29.01.2016**.
4. That the Vendors hereby assure the Vendee that he has a valid absolute and subsisting right and title to sell and to convey the same to the Vendee through this registered sale deed.
5. That the Vendors hereby assure that the schedule property is free from all encumbrances, charges, claims, disputes of whatsoever and no

A. K. Sankar

[Signature]

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5. That the Vendors hereby assure that the schedule property is free from all encumbrances, charges, claims, disputes of whatsoever and no proceedings are pending in respect of the same before any court of Law, Tribunal, Quasi-Judicial Authority.
6. That the Vendors has paid all taxes, rates, charges and other outgoings in respect of schedule property payable to the competent authorities and nothing is due in this regard.
7. That the schedule property is not covered by any Ceiling Act both Central and State.
8. That the Vendors hereby undertake to indemnify the Vendee from all losses, damages, inconveniences, costs and consequences, suffered due to any defect in the title of the Vendors in respect of Schedule property.
9. That the Vendors shall sign all further papers/documents if required to strengthen and perfect the title and ownership of Vendee in respect of scheduled property.
10. That the Vendors has delivered all the link documents in original including pattedar passbooks and title deeds to the Vendee and nothing is retained by him.
11. That the Vendors hereby agree and undertake to sign all paper/deed for mutation of the Revenue/Local bodies records in favour of the Vendee in respect of the Schedule property. That the Schedule property sold under this document is not assigned land which does not come under Act.9/1977.

A. K. Manjari



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845/2016.

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**SCHEDULE OF THE PROPERTY**

All that piece and parcel Agriculture Land in **Sy.No. 15/9** , extent **Ac. 02-34 Guntas**, and **Sy. No. 15/2 2**, Extent **Ac. 01-17 Guntas**, total **Ac. 04-11 Guntas**, and **Sy. No.15/9 2**, Extent **Ac. 02-34 Gts.**, and **Sy. No. 15/2 1**, Extent **Ac. 01-16 Guntas**, total **Ac. 04-10 Guntas**, Telangana State. The extent of the Scheduled Property is covered by the RDO, **Sangareddy** Proceedings No: **B3/LA/12157/2015**, issued to a total extent of **Acres 08-21 Gts.** in **Sy.No. 15/9** , **15/2 2**, & **15/2 1**, **15/9 2**, of Bardipur Village & Grampanchayat, Jharasangam Mandal, Medak District.

The boundaries of the Schedule property for Survey Nos. **15/9 & 15/2 2** area are given below:

NORTH : ROAD  
 SOUTH : SY. NO. 15/PART  
 EAST : LAND OF UDAI SHANKAR  
 WEST : LAND OF P. SAILATA & M. VENKATAMMA

The boundaries of the Schedule property for Survey Nos. **15/9 2 & 15/2 1** area are given below:

NORTH : ROAD  
 SOUTH : GOVERNMENT LAND SY. NO.16  
 EAST : GOVERNMENT LAND SY. NO.16  
 WEST : LAND OF SMT. A. KRUPANJALI

12. The Vendors hereby declare that there are no trees/grows or any such other gardens, that there are no mines or quarries of granite or such other valuable stones in the lands now being transferred, that if any

A. Krupanjali.

*[Signature]*

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845/2016. Sheet 6 of 8

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Zaheerabad



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suppression of facts are noticed at a future date, they will be liable to prosecution as per the law besides payment of deficit duty.

**STATEMENT** regarding the Market Value of the Property filed **under Rule (3)** of T.S prevention of Under Valuation Instrument Rule, 1975. We hereby declare and state to the best of our Knowledge and belief that the Market Value of the property entered as follows:-

**RULE – (3) THE MAIN MARKET VALUE STATEMENT**

Village	Sy. Nos.	Area Acs. Gts	Rate Per Acre	Land Value	Structure Value	Total Value
Bardipur (V)	15/23	02-34				
	15/22	01-17	5,65,000/-	24,15,375/-	6,09,514.20	30,24,889.20
Bardipur (V)	15/22	02-34				
	15/21	01-16	5,65,000/-	24,01,250/-	4,61,700/-	28,62,950.00
		08-21			Total Amount	58,87,839.20

In witness therefore the Vendors has signed this deed of sale out of their free will and full consent at the place and on the date here-in-above first written in the presence of the following:

**WITNESSES:**

1. *A.V. Balakrishna Singh*


2. *[Signature]*

1. *A. K. Parvati*

2. *[Signature]*

VENDORS

*[Signature]*  
VENDEE

  
Bk-1, CS No 871/2016 & Doct No  
845/2016. Sheet 7 of 8  
Joint SubRegistrar14  
Zaheerabad



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Election Commission of India  
 9-3-768/2  
 Himmath Nagar  
 Hyderabad  
 9-3-768/2  
 హైదరాబాద్

AP/31/208/312256

Elector's Name: A. Krupanelli  
 తండ్రి పేరు: ఎ.కృపానెల్లి

Father's/Mother's/  
 Husband's Name: A. Balakrishna Reddi  
 తండ్రి/తల్లి/భర్త పేరు: ఎ.బాలకృష్ణ రెడ్డి

Sex: M  
 లింగం: పు

Age as on 1-1-95  
 1-1-95 తేదీకి (వయస్సు): 30

*A. Krupanelli*

Address / చిరునామా  
 9-3-768/2  
 Himmath Nagar  
 Hyderabad  
 9-3-768/2  
 హైదరాబాద్

Electoral Registration Officer  
 ఎలక్షన్ రిజిస్ట్రేషన్ అధికారి

Sanath Nagar : Assembly Constituency  
 సాంత్ నగర్ : సభా నియోజకవర్గం

Place/ ప్రాంతం Hyderabad హైదరాబాద్

Date / తేదీ 15-03-1996

This Card may be used as an identity card  
 under different Government schemes  
 ఈ కార్డును వివిధ ప్రభుత్వ పథకాలలో  
 గుర్తింపుగా ఉపయోగించవచ్చు.

MPIC No : 16/00/01/009/00236/02

INDIAN UNION DRIVING LICENCE  
 TELANGANA STATE

835421987  
 P.UDAY SHANKAR  
 P. SUBBARAO  
 12-41-775555  
 BOUDH NAGAR  
 SECUNDRABAD  
 HYDERABAD-500001

Signature  
 Issued On: 07/08/2014

Licensing Authority  
 RTA-HYDERABAD-NZ

Non Transport Light Motor Vehicle-Non Transport, Motor Cycle With Gear

Date of Validity 13/08/2019

Transport

Date of Validity

Badge No.

Reference No. DLRT301834214

Original LA. RTA-HYDERABAD-NZ

Date of 1st Issue 23/06/1987

Date of Birth 15/06/1968

Blood Group

TSIC  
 Telangana State Industrial  
 Infrastructure Corporation Ltd.  
 (Govt. of Telangana Undertaking)

P.K. REVATHI BAI  
 Zonal Manager  
 E. Code : 1651  
 Patancheru Zone

Executive Director

Date of Birth : 20.08.1963  
 Blood Group : AB<sup>+</sup>B

Zonal Office  
 TSIC Limited, Industrial Park,  
 Patancheru, Medak District, T.S.

Regd. Office : 6th Floor,  
 "Parisrama Bhavanam",  
 Besheerbagh,  
 Hyderabad - 500 004.  
 Tel: 040-23237625, 26

Residence :  
 Plot No.37  
 Shanti Nagar Colony  
 Risalabazar  
 Secunrabad-500 010

*P.K. Revathi Bai*

Election Commission of India  
 9-3-768/2  
 Himmath Nagar  
 Hyderabad  
 9-3-768/2  
 హైదరాబాద్

AP/31/208/312255

Elector's Name: A. Balakrishna Reddi.  
 తండ్రి పేరు: ఎ.బాలకృష్ణ రెడ్డి

Father's/Mother's/  
 Husband's Name: A. Veera Reddy  
 తండ్రి/తల్లి/భర్త పేరు: ఎ.వీరా రెడ్డి

Sex: M  
 లింగం: పు

Age as on 1-1-95  
 1-1-95 తేదీకి (వయస్సు): 33

*A. Balakrishna Reddy*

Address / చిరునామా  
 9-3-768/2  
 Himmath Nagar  
 Hyderabad  
 9-3-768/2  
 హైదరాబాద్

Electoral Registration Officer  
 ఎలక్షన్ రిజిస్ట్రేషన్ అధికారి

Sanath Nagar : Assembly Constituency  
 సాంత్ నగర్ : సభా నియోజకవర్గం

Place/ ప్రాంతం Hyderabad హైదరాబాద్

Date / తేదీ 15-03-1996

This Card may be used as an identity card  
 under different Government schemes  
 ఈ కార్డును వివిధ ప్రభుత్వ పథకాలలో  
 గుర్తింపుగా ఉపయోగించవచ్చు.

MPIC No : 16/00/01/009/00236/01

INDIAN UNION DRIVING LICENCE  
 ANDHRA PRADESH

DRIVING LICENCE  
 D.N.C.A.010480002009  
 HANU, P.S.  
 UDAY SHANKAR  
 12-41-775555  
 BOUDH NAGAR  
 SECUNDRABAD

Signature  
 Issued On: 23/07/2007

MS867455/08 Class Of Vehicle Validity

Non-Transport Transport MCWG 08/05/2022

Non-Transport Transport MCWG 08/05/2022

Reference No. DLFP010150512002

Original LA. RTA SECUNDRABAD

DOB 14/11/1981

Blood Gr.

Date of 1st Issue 09/05/2002

Bk - 1, CS No 871/2016 & Doct No  
845/2016.

Joint Sub Registrar 14  
Zaheerabad



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**SBH** | Modern  
Innovative  
Dependable  
स्टेट बैंक ऑफ हैदराबाद  
State Bank of Hyderabad

R-2317

BRANCH  
CODE NO.: ZAHEERABAD-2101

H No.

845/16

Received a Sum of Rs. 78009 353400/-  
Rupees three lakh fifty three thousand four hundred  
from Smt./ Shri. SRM SRB.  
residing at \_\_\_\_\_

for credit of Government of Andhra Pradesh / Telangana  
towards Stamp duty/Registration Fee.

ns) - 323740/-  
R - 29440/-  
nc - 220/-

Place :

Date :

ZAHEERABAD-2101

30/1/16

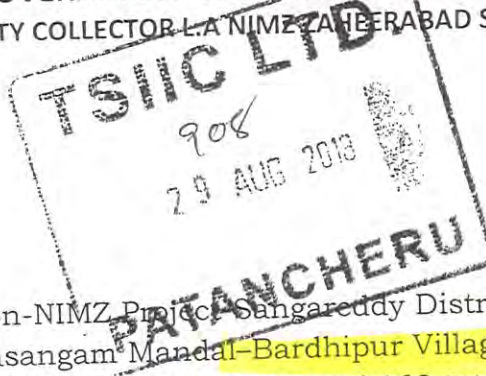
353400 / Authorised Signatory

SS No. \_\_\_\_\_

GOVERNMENT OF TELANGANA

OFFICE OF THE SPECIAL DEPUTY COLLECTOR L.A NIMZ ZAHEERABAD SANGAREDDY DISTRICT  
 Lr.No.53/NIMZ/2018

Date: 27-08-2018



To  
 The District Collector  
 Sangareddy.

Sir,

Sub:- Land acquisition-NIMZ Project Sangareddy District-Zaheerabad  
 Division- Jharasangam Mandal-Bardhipur Village -Notification for  
 acquisition of Land in Sy. No.16, 17 and 163 total extent 26-06 acres-  
 Acquisition/Alienation of land for establishment of NIMZ Project-  
 Notification in Form-F approved-Gazette Number allotted-Further  
 report submitted-Reg:-

- Ref: - 1).The District Collector Sangareddy Lr.No.G1/345/2018,  
 Dated.18-06-2018.  
 2).The District Collector Sangareddy Lr.No.G1/345/2018,  
 Dated.02-08-2018.  
 3). The District Collector Sangareddy Proce.No.G1/345/2018,  
 Dated.20-08-2018.  
 4).This office award Proce.No.53/NIMZ/2018, Dated.27-08-2018.

<<<>>

I invite kind attention to the references cited and submitted that,  
 following the guidelines given vide reference 3<sup>rd</sup> cited, the award proceeding in  
 respect of the following lands has been approved and the land acquisition process  
 has been completed in all respects following with the due procedure. The  
 agreement in Form-G-I taken from the concerned pattadar/assignees has been  
 submitted on 14-08-2018(Copy enclosed). A copy of award proceedings with a  
 copy under Form-IX under the rule 26 of TSRFCTLARR rules 2014 is enclosed  
 herewith. Further the Form-VIII under rule 24 of the same rules is not applicable  
 to these lands.

Sy.No	Type of title	Type of land	Extent under acquisition and possession of (pattadars/enjoyers)	
			No. of farmers	Extent
1	2	3	6	7
16	Govt	Dry	18	23-20
17 ✓	Govt	Dry	2	1-00 ✓
163 ✓	Patta	Dry	1	1-26 ✓
		Total	21	26-06

I therefore request to kindly sanction of the funds covering an amount of  
 Rs.1,15,67,500=00 for payment of land ex-gratia to assigned land and  
 compensation for patta land.

Enclo.(Cited).  
 Three

Yours faithfully

*[Signature]*  
 SPECIAL DEPUTY COLLECTOR  
 L.A: NIMZ ZAHEERABAD  
 SANGAREDDY

- Copy submitted to the Vice Chairman and Managing Director, TSIIC Ltd, Patancheru  
 Bhavan Bhaseerbagh Hyderabad for favour of kind information.  
 Copy to the Zonal Manager TSIIC Ltd, Patancheru for information.  
 Copy to the Tahsildar Jharasangam for necessary action.

*[Handwritten notes]*  
 27/8/18

**GOVERNMENT OF TELANGANA**  
**AWARD PROCEEDINGS OF THE SPECIAL DEPUTY COLLECTOR L.A NIMZ ZAHEERABAD**  
**SANGAREDDY DISTRICT**

**Proce.No 53/NIMZ/2018**

**Date: 27-08-2018**

**Present Sri: SIVARAM B.A.,**

Sub: - Land Acquisition -NIMZ Project-Sangareddy District-Zaheerabad Division- Jharasangam Mandal-Bardhipur Village-Acquisition /alienation of government assigned land in Sy.No.16 extent 23-20 acres Sy.No.17 extent 1-00 acre and Sy.No.163 patta extent 1-26 acres total extent 26-06 acres situated at Bardhipur Village for establishment of NIMZ Project-Notification (Form-C) Approved and Published- Consent submitted in Form-E-I and Form-G-1- Notification in Form-F approved and published-Permission accorded by the District Collector Sangareddy-Consent award to an extent of 26-06 acres-Orders issued-reg:-

- Ref: - 1).The District Collector Sangareddy Lr.No. G1/1145/2013, Dated.05-10-2017.  
2).The District Collector Sangareddy Lr.No. G1/345/2018, Dated.18-06-2018.  
3).This office Lr.No.53/NIMZ/2018, Dated.19-06-2018, in which Gazette publication.  
4).The Tahsildar Jharasangam Proce.No.B/2450/2018, Dated.22-06-2018.  
5).Mandal level Negotiation Committee Meeting,Dated.22-06-2018.  
6).The District Collector Sangareddy Lr.No.G1/345/2018, Dated.19-07-2018.  
7). This office Lr.No.53/NIMZ/2018, Dated.20-07-2018.  
8). The District Collector Sangareddy Lr.No.G1/345/2018, Dated.02-08-2018.  
9). The District Collector Sangareddy Proce.No. G1/345/2018, Dated.20-08-2018.

<<<>>>

**ORDER:**

The Vice Chairman and Managing Director TSIIC Ltd, Hyderabad has accorded permission to the Zonal Manager TSIIC Ltd, Patancheru to file requisition for acquisition of land for establishment of NIMZ Project at Bardhipur village. Accordingly the requisition from the Zonal Manager TSIIC Ltd, Patancheru has been received through the reference 1<sup>st</sup> read above to an extent of 92-35 acres of patta land and an extent of 40-32 acres of government assigned lands situated at Bardhipur village. The requisition filed by the Zonal Manager TSIIC Ltd, Patancheru has been verified with reference to the basic revenue records of Bardhipur village and at first prepared land acquisition proposals for an extent of 30-15 acres i.e. 24-20 acres is government assigned land and 5-35 acres is patta lands owing to consent given by the pattadars/assignees of the lands. Details are as follows.

S.No	Sy.No.	Type of title	Type of land	Extent under proposals
1	16	Govt	Dry	23-20
2	17	Govt	Dry	1-00
3	22	Patta	Dry	4-09
4	163	Patta	Dry	1-26
			Total	30-15

Accordingly Form-C notification has been approved by the District Collector Sangareddy vide reference 2<sup>nd</sup> read above and similarly allotted the Sangareddy District Gazette No.16, Dated.18-06-2018, for the purpose has also been published on the conspicuous places as directed vide reference 2<sup>nd</sup> cited and the same has also been published in Namasthe Telangana and Andhra Bhoomi daily newspapers Dated.04-07-2018. After publication of the land acquisition proposals in the Sangareddy District Gazette and daily newspaper dated.04-07-2018 an objection petition has been received from Sri.K.Rajkumar of Pothireddypalli village of Sangareddy Mandal and the same petition has been disposed following the due procedure. Further there are no claims and objections are received in the stipulated time with respect to the Form-C notification.

Further the Tahsildar Jharasangam has enquired in respect of the proposed lands and submitted land acquisition proposals through this office for consideration under the land acquisition. Further the Tahsildar Jharasangam has issued resumption orders in respect of government land in Sy.No.16 and 17 for handing over the possession to the requisitioning agency after payment of land ex-gratia to the land losers (assignees). Further the negotiation committee meeting with the assignees/pattadars of the lands coming under proposals has been conducted on 22-06-2018 at Tahsildar Office Jharasangam. In the said meeting it has been explained the assignees/pattadars about procurement of land for NIMZ Project, and also explained that the NIMZ will be developed as integrated industrial town ship and the NIMZ will enhance the opportunities and to generate employment opportunities to the local people on their ability, skill and eligibility. Further it has also been explained to the participants that the present market value of the lands of Bardhipur village as furnished by the Sub-Registrar Zaheerabad that the basic value per acre is Rs.60,000=00 to patta land and if considered u/s 26 and 30 of R F C T L A R R act 2013 and after multiplied u/s 28 of T S R F C T L A R R rules 2014 for rural 1.5 and solatium u/s 30 of R F C T L A R R act 2013, solatium amount equivalent to one hundred percent of the compensation payable to the land losers will accrue of Rs.3,00,000=00 per acre as per the market (basic) value. After discussions the factors provided in 2013 act and in the G.O.Ms.No.120 Revenue (JA&LA) department, dated.30-06-2017 the negotiation with the pattadars/assignees come to conclusion in the said negotiation committee meeting and the pattadars/assignees were given consent for payment of ex-gratia @ Rs.4,25,000=00 per acre for assigned government land and Rs.7,00,000=00 per acre for patta lands and given agreement in Form-E-I and Form-G-I.

Meanwhile the pattadars of Sy.No.22 extent 4-09 acres are presently in abroad, thereby their agreement in Form-E-I has not been taken. Finally the land acquisition proposals in Form-F in respect of the following lands have been submitted to the District Collector Sangareddy for approval. Accordingly the Form-F proposals have been approved by the District Collector Sangareddy through the reference 7<sup>th</sup> read above while allotting the Sangareddy District Gazette No.21, Dated.02-08-2018, the same Gazette has been published on the conspicuous places of Jharasangam Mandal and also published in the daily newspapers Namasthe Telangana and Times of India Dated.19-08-2018.

S.No	Sy.No	Type of title	Type of land	Extent of land under possession of (pattadars/enjoyers) and covered under acquisition	
				No. of farmers	Extent
1	16	Govt	Dry	18	23-20
2	17	Govt	Dry	2	1-00
3	163	Patta	Dry	1	1-26
			Total	21	26-06

Further after publication of paper notification in Form-F in respect of the above land acquisition proposals, there are no claims and objections are received in the stipulated time with respect to the daily paper notification, Dated.19-08-2018.

Therefore in pursuance of the guidelines under G.O.Ms.No. 120 Revenue (JA&LA) Department Dated.30-06-2017 and following the directions issued herein for acquisition/alienation of land in favour of the TSIIC Ltd, Hyderabad in respect of the land in Sy.No.16 extent 23-20 acres Sy.No.17 extent 1-00 acre and Sy.No.163 extent 1-26 acres total extent 26-06 acres situated at Bardhipur village for establishment of NIMZ Project Zaheerabad has been completed. Therefore payment of ex-gratia to the assigned land and compensation to the patta land has been calculated following with due procedure under rule 9 of G.O.Ms.No.120 Revenue (JA&LA) department, Dated.30-06-2017 and read with rules 26 to 28 of the T S R F C T L A R R rules 2014 in favour of the following land losers of Bardhipur village.

S. No	Sy. No.	Extent	Name and address of the land owner	Amount payable each.	Remarks
1	16/2/1	1-20	K.Raju S/o.Sanganna	637500	
2	16/21/1	1-20	B.Jyothi W/o.Samuel	637500	
3	16/23/1	1-20	S.Dattu S/o.Venkat	637500	
4	16/27/1	1-20	Digambar S/o.Mogulanna	637500	
5	16/27/2	1-20	K.Manik Rao S/o.Mogulanna	637500	
6	16/30	1-20	Indiramma W/o.Naganna	637500	
7	16/31	1-20	T.Manjula W/o.Krishna	637500	
8	16/8/1	1-20	Ch.Niramala W/o.Srinivas	637500	
9	16/A5/2	1-00	Mallappa S/o.Siddappa	425000	
10	16/YA/1	1-20	Peeramma W/o.Narsimulu	637500	
11	16/CHAA	2-00	Rajendar S/o.Mogulaiah	850000	
12	16/A8	1-00	G.Narsimulu S/o.Sangaiah	425000	
13	16/A9/1	1-00	P.Narsaiah S/o.Sangappa	425000	
14	16/A15/A	0-17	Ch.Bagaiah S/o.Narsappa	180625	
15	16/A16	1-13	Ch.Bagaiah S/o.Narsappa	563125	
16	16/THA1/1	1-00	Vinodamma W/o.Narsimulu	425000	
17	16/A5/1	1-00	B.Ramchandrar S/o.Siddappa	425000	
18	16/23	1-10	Kalpana W/o.Shyam	531250	
19	17/A	0-20	K.Vaishnavi D/o.Prasad	212500	
20	17/A/A	0-20	K.Hasini D/o.KLN.Prasad	212500	
21	163/LU/1	1-26	M.Devadas S/o.Sammaiah	1155000	
	Total	<b>26-06</b>		<b>1,15,67,500</b>	

**General information of the Village**

The lands under acquisition are situated in Bardhipur village of Jharasangam mandal of Sangareddy District and the lands are required in favour of TSIIC for establishment of NIMZ Project.

**Classification of lands:-**

The lands under acquisition were inspected on 03-02-2018. During the course of inspection it is observed that the land in Sy.No.16 and 17 of Bardhipur village under acquisition are assigned government lands and Sy.No.163 is patta land and are similar nature yield facility and other things on ground i.e. dry lands for the purpose of fixing of market value of land.

During the inspection it is found that there are no permanent structures tombs, masques etc., are existing in the acquired lands.

**Category of lands:-**

The total extent of land that has been coming under acquisition for the said purpose is dry.

**Endowment land:-**

There are no endowment lands covered under acquisition in the village.

**Protected Tenants:-**

The lands under acquisition are not covered with protected tenants.

**Structures/Bore-wells/Trees/Orchards etc:-**

In this award there is no bore-wells, trees and orchards in the acquisition land.

**Budget:-**

The District Collector Sangareddy is requested to provide the requisite funds as furnished above.

Typed to my dictation, corrected signed by me and pronounced in the open court today the 27<sup>th</sup> day of August,2018.

Enclo. ( one )

To the Individual concerned

Copy submitted to the District Collector Sangareddy for favour of kind information

Copy submitted to the Revenue Divisional Officer Zaheerabad for kind information

Copy submitted to the Vice Chairman & Managing Director TSIIC Ltd Hyderabad for kind information.

Copy to the Zonal Manager TSIIC Ltd, Patancheru for information.

  
SPECIAL DEPUTY COLLECTOR  
SDC-L.A.-NIMZ  
L.A: NIMZ ZAHÉERABAD  
DISTRICT SANGAREDDY

OFFICE OF THE SPECIAL  
DEPUTY COLLECTOR L.A  
NIMZ ZAHEERABAD SANGAREDDY DISTRICT

**FORM IX**

(See rule -26 and Section 23 & 30 of the Act 30 of 2013)

Land Acquisition Award

Land Acquisition Case No.53/ NIMZ/2018

Bardhipur village

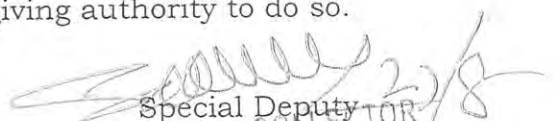
Jharasangam Mandal  
Sangareddy District

1	Name of the Project	National Investment and Manufacturing Zone-NIMZ Project Zaheerabad, Sangareddy District.
2	Number and Date of Declaration under which the land is to be acquired	Form-C notification in paper publication Dated. 04-07-2018 Gazette No.16 publication, Dated.18-06-2018 Form-F notification in paper publication Dated. 19-08-2018 Gazette publication No.21 Dated.02-08-2018
3	Situation and extent of the land in acres, the number of field plots on the Survey map, the village in which situated with the number of mile plan if any	Agriculture land in Sy.No.16,17 and 163 total extent 26-06 acres Bardhipur village.
4	Description of the land, i.e. whether fallow, cultivated, homestead etc., if cultivated, how cultivated?	Dry Cultivation
5	Names of persons interested in the land and the nature of their respective interests	Assignees for government land and enjoyer for patta land as mentioned at column 16 below.
6	Amount allowed for the land itself, without trees, buildings etc., if any	Rs.4,25,000/- per acre to assigned land and Rs.7,00,000=00 per patta land.
7	Amount allowed out of such sum as compensation for the tenants interest in the land	-Nil-
8	Basis of calculation:	Under negotiation
9	Amount allowed for trees, houses or any other immovable things	-Nil-
10	Amount allowed for crops	-Nil-
11	Additional compensation on the market value under section 30(3)	-Nil-
12	Damages under section 28 of Act 30 of 2013	-Nil-
13	Solatium U/s 30(1)	Under negotiation
14	Award U/s 23 and 30 of Act 30 of 2013	Land ex-gratia/compensation
15	Particulars of abatement of Government Revenue, or of the capitalized value paid, the date from which the abatement takes effect	-Nil-

16	Apportionment the amount of compensation Area (in Acre)	Serial No.(Sy.No )	Name of the Claimants	Amount payable to each	Bank A/C No.	Remarks
1	1-20	16/2/1	K.Raju S/o.Sanganna	637500	414501011000175	
2	1-20	16/21/1	B.Jyothi W/o.Samuel	637500	414501011000287	
3	1-20	16/23/1	S.Dattu S/o.Venkat	637500	414501011001529	
4	1-20	16/27/1	Digambar S/o.Mogulanna	637500	414501011000374	
5	1-20	16/27/2	K.Manik Rao S/o.Mogulanna	637500	34082200030457	
6	1-20	16/30	Indiramma W/o.Naganna	637500	414501011001544	
7	1-20	16/31	T.Manjula W/o.Krishna	637500	34082210001138	
8	1-20	16/8/1	Ch.Niramala W/o.Srinivas	637500	34082250003152	
9	1-00	16/A5/ 2	Mallappa S/o.Siddappa	425000	62379055447	
10	1-20	16/YA/ 1	Peeramma W/o.Narsimulu	637500	9983000100000671	
11	2-00	16/CHA A	Rajendar S/o.Mogulaiah	850000	916010068337851	
12	1-00	16/A8	G.Narsimulu S/o.Sangaiah	425000	34082200010524	
13	1-00	16/A9/ 1	P.Narsaiah S/o.Sangappa	425000	34082210000324	
14	0-17	16/A15 /A	Ch.Bagaiah S/o.Narsappa	180625	34082210014749	
15	1-13	16/A16	Ch.Bagaiah S/o.Narsappa	563125	34082210014749	
16	1-00	16/THA 1/1	Vinodamma W/o.Narsimulu	425000	34082210000845	
17	1-00	16/A5/ 1	B.Ramchandrar S/o.Siddappa	425000	566010310000039	
18	1-10	16/23	Kalpna W/o.Shyam	531250	06842191028197	
19	0-20	17/A	K.Vaishnavi D/o.Prasad	212500	68101510566	
20	0-20	17/A/A	K.Hasini D/o.KLN.Prasad	212500	004001638687	
21	1-26	163/LU /1	M.Devadas S/o.Sammaiah	1155000	105310100043242	
	<b>26-06</b>			<b>1,15,67,500</b>		
17	Date on which possession was taken U/s 38(1) of Act of 30/2013.				Immediately after payment made.	

If U/s. 40(1) the number and date of the order of government giving authority to do so.

Date:

  
 Special Deputy  
 Collector LA NIMZ  
 L.A: NIMZ ZAHNEERABAD  
 DISTRICT SANGAREDDY

బుద్ధివూరి) గాఢము, ఊహసంగమ మఠము తే! 16.10.2018  
 తాజన తహశీద్దారి) ఊహసంగమ గారు, జూనియర్ వేజర్ T-511C గారి  
 స్పాన్సర్షిప్ పరిచయ భూముల నివారముల



క్రమ సంఖ్య	అనుబంధము స్పాన్సర్షిప్ పరిచయ భూముల నివారముల	నాన్స్ సంఖ్య	నివారము	అనుబంధము స్పాన్సర్షిప్ పరిచయ భూముల నివారముల
1	2	3	4	5
1.	కె. రాజు అండ్రి సంగన్న	16/21/1	1-20	53/NIMZ/2018
2.	బి. జ్యోతి శ్రీ సామెల్	16/21/1	1-20	తే. 27.8.2018
3.	ఎస్. దత్త అండ్రి వెంకట	16/23/1	1-20	-తదా-
4.	బి. రామలి అండ్రి మొగులన్న	16/27/1	1-20	"
5.	కె. మానిక్ రామ్ అండ్రి మొగులన్న	16/27/2	1-20	"
6.	ప్రొఫీసర్ శ్రీ వాసన్న	16/30	1-20	"
7.	బి. మంజుల శ్రీ క్రీష్ణ	16/31	1-20	"
8.	నాథాన్. నిర్మల శ్రీ క్రీష్ణ	16/8/1	1-20	"
9.	మల్లప్ప అండ్రి. నర్సప్ప	16/A5/2	1-00	"
10.	వీరప్ప శ్రీ నర్సప్పలు	16/YA/1	1-20	"
11.	రాజేందర్ అండ్రి మొగులన్న	16/CHAA	2-00	"
12.	జి. నర్సప్పలు అండ్రి సంగన్న	16/A8	1-00	"
13.	పి. నర్సప్ప అండ్రి సంగన్న	16/A9/1	1-00	"
14.	నాథాన్, లాంగయ్య అండ్రి నర్సప్ప	16/A15/A	0-17	"
15.	నాథాన్, లాంగయ్య అండ్రి నర్సప్ప	16/A16	1-13	"
16.	వివేకమ్ శ్రీ నర్సప్పలు	16/THAA/1/1	1-00	"
17.	బి. రామచందర్ అండ్రి నర్సప్ప	16/A5/1	1-00	"
18.	కల్పన శ్రీ శ్రీ	16/23	1-10	"
19.	కె. వెంకట అండ్రి ప్రసాద్	17/ఎ	0-20	"
20.	కె. వాసన్ అండ్రి కె. వాసన్ ప్రసాద్	17/ఎ/ఎ	0-20	"

1	2	3	4	5
21	ఎన్. జవహర్ కాలనీ సామయ్య 163/L/1	1-26	53/101M21 2018	తే. 27.8.2018
0	క్రితము పంపించిన చెల్లించిన <del>కా</del> సాక్షాత్తులను చేసు కొనవలసిన క్షమాపణ పత్రములు:			
22	మేకరి సామయ్య కాలనీ సంగయ్య 16/4/1	1-00	} 3-23	
23	బి. సంగన్న కాలనీ మధుసూదన్ 16/22	0-15		
24	వి. చుక్కాపల్లి కర్ణ పంపయ్య 16/22	2-00		
25	అత్త రామయ్య కాలనీ మల్లయ్య 16/21	0-08		
మొత్తము		29-29		

ABSTRACT

<u>Syno.</u>	<u>Ext</u>
16	Ac. 27-03 Assigned Land
17	" 1-00 " "
163	" 1-26 Patta land
<u>Total : 29-29</u>	

1) Maximal  
 2) Wagdyar  
 3) Mis Jharasangam

- 1) 
- 2) 
- 3) K. Deetha

Handed over by  
ME

P. V. Karathri Bai  
 ZONAL MANAGER  
 TSCS LTD.  
 Zonal Office, Hyderabad, Telangana State

  
 TALSILDAR  
 Jharasangam Mandal,  
 Sangareddy Dist, Telangana State



రెవెన్యూ క్రమ ప్రకటన

విదేశీ భూమి సేవలను చెల్లించిన భూస్వామిలకు  
3-23 నుండి లాభ్య భూమి కుండా వుండకుండా  
స్పష్టపరచుట.



స్పష్టపరచిన భూమి భూమి లబ్ధిదారుల

వివరాలు మరియు పట్టికలు పట్టికలు వివరాలు  
అందుకు ఆదేశాలు. అట్టి భూమిల ప్రకారము  
మొత్తము లబ్ధిదారులు ~~(3) నుండి~~ ప్రస్తుత అవకాశ  
ప్రకారము (21) మంది లబ్ధిదారులు విస్తీర్ణము: 26.06 నుండి  
(లాభ్య భూమి: 24-20 నుండి) మరియు పట్టికలు విస్తీర్ణము: 12.4 నుండి  
(క్రమ సేవలను చెల్లించిన లాభ్య భూమి విస్తీ: 3-23 నుండి)  
లబ్ధిదారులు (4) నుండి మొత్తము విస్తీర్ణము: 29.29 నుండి  
అట్టి భూమిల నామం మొత్తము విస్తీర్ణము: 29.29 నుండి  
అనిపించగా అని సరియైన దని సాధకము చేయవలసి.

అధికారి  
అధికారి

M.S.  
Jhara Sangam

పంచుల సాధకములు

1. 
2. 
3. K. Duttu

Handed over by  
Mr



TANILDAR  
Jhara Sangam Mandal,  
Sangareddy, Telangana State

M.S. Perathri Ven  
ZONAL MANAGER  
TSHC LTD.

Zonal Office, Palancheru, Sangareddy Dist.

GOVERNMENT OF TELANGANA  
OFFICE OF THE TAHSILDAR JHARASANGAM MANDAL SANGAREDDY DISTRICT

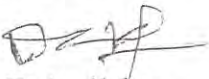
Lr.No.B/781/2013

Date: 16-10-2018

POSSESSION CERTIFICATE

It is to certify that, as per the consent award passed by the Special Deputy Collector (LA) NIMZ Zaheerabad vide proceeding No.53/NIMZ/2018, Dated.27-08-2018 to hand over land physical possession in Sy.No.16 extent Ac.23-20 gts, and earlier missing extent Ac.3-23 gts in Sy.No.17 extent Ac.1-00 and in Sy.No.163 extent Ac.1-26 gts total extent Ac.29-29 gts situated at Bardipur village Jharasangam Mandal Sangareddy District which was procured for establishment of National Investment of Manufacturing Zone (NIMZ). The said land physical possession handed over on 16-10-2018 to the Zonal Manager TSIIC Ltd, Patancheru.

Handed over

  
Tahsildar,  
Jharasangam Mandal,  
Jharasangam Mandal,  
Sangareddy District, Telangana State

Taken over

  
Zonal Manager,  
TSIIC Ltd, Patancheru.  
**ZONAL MANAGER**  
**TSIIC LTD.**  
Zonal Office, Patancheru, Sangareddy Dist.

మండల రెవెన్యూ గిరిజావతు ధూతాసంగి ముడిలం సంస్కృతి జలా  
 సరి చే నిర్వహించిన పంచనామా తేదీ 4-12-2016.

క్రమ సంఖ్య	పంచుల పేరు	అంశ పేరు	వయస్సు	కులం	ప్రకృతి	నివాసం
1	కోట లక్ష్మణ్	రామన్న	56	కె.ల.	స్రవ.	బద్దిపాడు
2	గొల్ల మూడేన్	బల్లపూ	60	కె.ల.	"	"
3	అలగెమనోవర్	కెవెండర్	28	కె.ల.	"	"

మేము ముగ్గురము పంచులను మండల రెవెన్యూ గిరిజావతు ధూతాసంగి సారల పంతులు మేరియో సోమ పంచాయతీ కార్యాలయము బద్దిపాడు చేరుకొని అతనికి నుండి మూడల రెవెన్యూ గిరిజావతు ధూతాసంగి VRO బద్దిపాడు మరియు జోనల్ మేనేజర్ TSIL Ltd. పటాన్ చెట్టు అభివృద్ధి కార్యాలయం, బద్దిపాడు సామగ్రి వారులూ సత్వంబు 16 లాగల అసైన్ భూములను పరిశీలించగా అట్టి భూములను ఇదివరకే ప్రత్యేక టేం అభివృద్ధి కార్యాలయం (డిప్లొమెంట్ వచన అభివృద్ధి) వారు కూడా పరిశీలించి District Level Land Procurement కమిటీలో నిర్ణయించబడిన టేం ప్రకారం భూమి వేలం అసైన్ పట్టణం లు లు చెల్లించారు. అట్టి అసైన్ భూములను అయాజీలువారు ధూతాసంగి కార్యాలయం కట్టబ్బినెం. 23/78/2013 తేదీ -02-2016 తో జూస్ (Resumpt) గా రిలవ్) జారీ చేసినారు. అట్టి కట్టబ్బుల ప్రకారం మూడిల రెవెన్యూ గిరిజావతు ధూతాసంగి సారల తరఫున భూమి వేలం నిర్వహించి వస్తే వాటి వదురు సాయంబియ్యం అసైన్ భూముల జాబులనుండి, లాభ్య భూములను మూడేన్ టేం ప్రభుత్వ స్వాధీనం చేసుకొనారు. అట్టి స్వాధీనం చేసుకోవడా భూములను అతిగా మూడేన్ జోనల్ మేనేజర్ (Z.M) TSIL Ltd. పటాన్ చెట్టు సరికి స్వాధీనం చేసినారు. అట్టి భూములకు ఇది వరకే ప్రత్యేక టేం అభివృద్ధి కార్యాలయం భూమి వేలం వకరం బుక్ కంటర్. రూ॥ 4,00,000/- అక్షరాల నాలుగు లక్షల చొప్పున సొసల్య యన్ప్ర అసైన్ భూములకు మరియు రూ॥ 3,25,000/- అక్షరాల మూడలక్షల ఇరవై రూ వేల మాత్రమే సొసల్య అసైన్ భూమి వారులకు చెల్లించారు.

ప్రస్తుతం అట్టి అసైన్ భూములను ఈ దివ్యతేజ న ప్రకారం మూడేన్ మూడిల రెవెన్యూ గిరిజావతు ధూతాసంగి సారల అయాజీలువారు ధూతాసంగి Resumpt కార్యాలయ నుండి చే, ప్రభుత్వ స్వాధీనం చేసుకోని అతిగా జోనల్ మేనేజర్ TSIL Ltd. పటాన్ చెట్టు సరికి మూడేన్ భూములను స్వాధీనం చేసినారు.

(25)

స్వాధీన పరిచిన అగ్నేన్ బూముల వివరములు  
ఇందు వెంట బిట్ పరిచినారు. యొక్కం(111) లబ్ధి పాటల సూచి  
యొక్కం అగ్నేన్ బూముల వివరము (174-21) వివరములను మూయి  
ట స్వాధీనం చేసినది నిజం. ఇట్ల పంచనామ యొక్కం నెక్రయోం  
తెలుసులగా చదివి తీసికొంచునా విసి, సరియైనదిని నమ్మి సంతకాలు  
చేసినది నిజము.

పంచుల సంతకాలు

సాక్షులు  
యొక్కం

- 1) జనీషివయ్య
- 2) వెగాం సవ్యపు (సిద్ది) సంగం
- 3)
- 4) ఖాదిపాబీ
- 5) వెగాంపంటయ్య
- 6) బలంబయ్య
- 7) ~~కాంబ~~  
(కంబ పంటయ్య)

1) కలిపి

2) మక్రన్

3. A-Ainul

గ్రామ రెవెన్యూ అధికారి  
గ్రామము - సిద్దిపేట  
మం. ధూరానగం. జిల్లా సంగం

Possession handed over by me

8) K. Digambar  
Taken over by me

P. K. Kerathu Beri  
ZONAL MANAGER  
TSIC LTD.  
Zonal Office, Patancheru, Medak Dist

~~Signature~~  
24/12/16  
Revenue Inspector  
Jharaasangam  
J. Saigam (w.)

TANSILDAR  
Jharaasangam Mandal,  
Sangam, Dist. Telangana State

బుద్ధిపూరి గడమఱు, శరాసంఘం మండలం, తేదీ 4-12-2016 రోజున  
 మండల రెవెన్యూ శాఖ వారి గారు, బీసీఎల్ఐ సెక్షన్ TS 11C 4d, పటాని చెట్ల  
 గారికి స్వాధీన పరిచిన లాభ్యని సుముల దివరములు.

క్రమ సంఖ్య	ప్రస్తుత స్వాధీనం చెసుకోవలసిన భూమి వివరాలు / తండ్రి/భర్త పేరు	సర్వే నెం	విస్తీర్ణము	తరవాకలు దారు శరాసంఘం గారి Reclamation Order నెంబరు, తేదీ.
(1)	(2)	(3)	(4)	(5)
1	మొదటి శామలమ్మ/ఎ. తమ్మిళ్ళ	16/8	2-00	సె B/781/2013 తె 02-02-2016
2	ఎ. శామలమ్మ/ఎ. వివేకా	16/5	2-00	do
3	గుండెటి జీమయ్య/ఎ. సంగయ్య	16/20/6	1-00	do
4	సుశీలమ్మ/ఎ. తంజయ్య	16/22/1	2-00	do
5	గుండెటి జయమ్మ/ఎ. నాగయ్య	16/21/2	2-00	do
6	నాగమ్మ/ఎ. నాగయ్య	16/27/1/7	2-00	do
7	శ్రీమమ్మ/ఎ. బాలయ్య	16/2	2-17	do
8	సీమమ్మ/ఎ. వరయ్య	16/2/1	1-00	do
9	బావయ్య/ఎ. నాగయ్య	16/1	2-20	do
10	గుండమ్మ/ఎ. వరయ్య	16/22	1-39	do
11	గయ్య/ఎ. నాగయ్య	16/26	2-10	do
12	క్రీష్ణ/ఎ. లక్ష్మయ్య	16/TA	3-00	do
13	మంగళ. వరయ్య/ఎ. తంటమ్మ	16/DA	2-15	do
14	గుండమ్మ/ఎ. వరయ్య	16/PA	2-25	do
15	రాంబందర్/ఎ. సంగయ్య	16/PHA	0-20	do
16	శామయ్య/ఎ. వనయ్య	16/SHA	1-33	do
17	మాలినీ బి/ఎ. ఇబ్రహీం	16/O.O	1-00	do
18	తమ్మిళ్ళ/ఎ. వల్లయ్య	16/HA	0-27	do
19	బుట్ల శామమ్మ/ఎ. సంగయ్య	16/AG	2-00	do
20	శామయ్య/ఎ. బాలయ్య	16/HLA	2-36	do
21	సంజీవ్/ఎ. శామయ్య	16/LHA	0-27	do
22	తమ్మిళ్ళయ్య/ఎ. శామయ్య	16/RAVI	0-36 39-25	do

(1)	(2)	(3)	(4)	(5)
23	నాయువు కి. వాగయ్య	16/A 3	2-20	సం 6/781/2013 తేది -02-2016
24	అమ్మలయ్య కి. శామయ్య	16/A 7/1	1-00	
25	నర్సిప్ప కి. బాలయ్య	16/A 12	2-00	— do —
26	శాంతమ్మ కి. రామయ్య	16/	0-20	— do —
27	నర్సిమ్మల కి. సంగయ్య	16/14	2-00	— do —
28	బాగయ్య కి. నర్సిప్ప	16/A 15	0-14	— do —
29	రాంచందర్ కి. సంగయ్య	16/PHA	0-31	— do —
30	మూలనీ కి. బి. ఇబ్రహీం	16/0-0	1-20	— do —
31	శాంతమ్మ కి. రామయ్య	16	1-20	— do —
32	బయ్య కి. నర్సిప్ప	16/E	3-00	— do —
33	లక్ష్మయ్య కి. టెంబయ్య	16/Ee	1-32	— do —
34	చందయ్య కి. సాయన్న	16/Lu	2-00	— do —
35	చందయ్య కి. నర్సిప్ప (నర్సిప్ప)	16/A	2-00	— do —
36	నర్సిమ్మల కి. పోషయ్య	16/0	2-00	— do —
37	మొగులమ్మ కి. కేశవ	16/0u	2-00	— do —
38	నర్సిమ్మల కి. మొగులయ్య	16/A00	2-00	— do —
39	మాణయ్య కి. సాయయ్య	16/BA	2-00	— do —
40	కొనమయ్య కి. తుల్యయ్య	16/GHA	1-26	— do —
41	మాణయ్య కి. తుల్యయ్య	16/GHA	1-27	— do —
42	సంసయ్య కి. తుల్యయ్య	16/GA2	1-27	— do —
43	మాణయ్య కి. మాణియ్య కి. తుల్యయ్య	16/GHA	2-00	— do —
44	బయ్య కి. నర్సిప్ప	16/THA/1	2-00	— do —
45	కేశవయ్య కి. గణయ్య	16/DHA	2-00	— do —
46	శీలయ్య కి. రాంచందర్	16/TA	4-35	— do —
47	మాణయ్య కి. సంసయ్య	16/THA2	1-10	— do —
48	కేశవయ్య కి. గణయ్య	16/BA	0-17	— do —
49	పంచతి కి. గణయ్య	16/BA1	0-18	— do —
50	సమయ్య కి. బాలయ్య	16/BA	0-33	— do —

45-34 30  
47-30

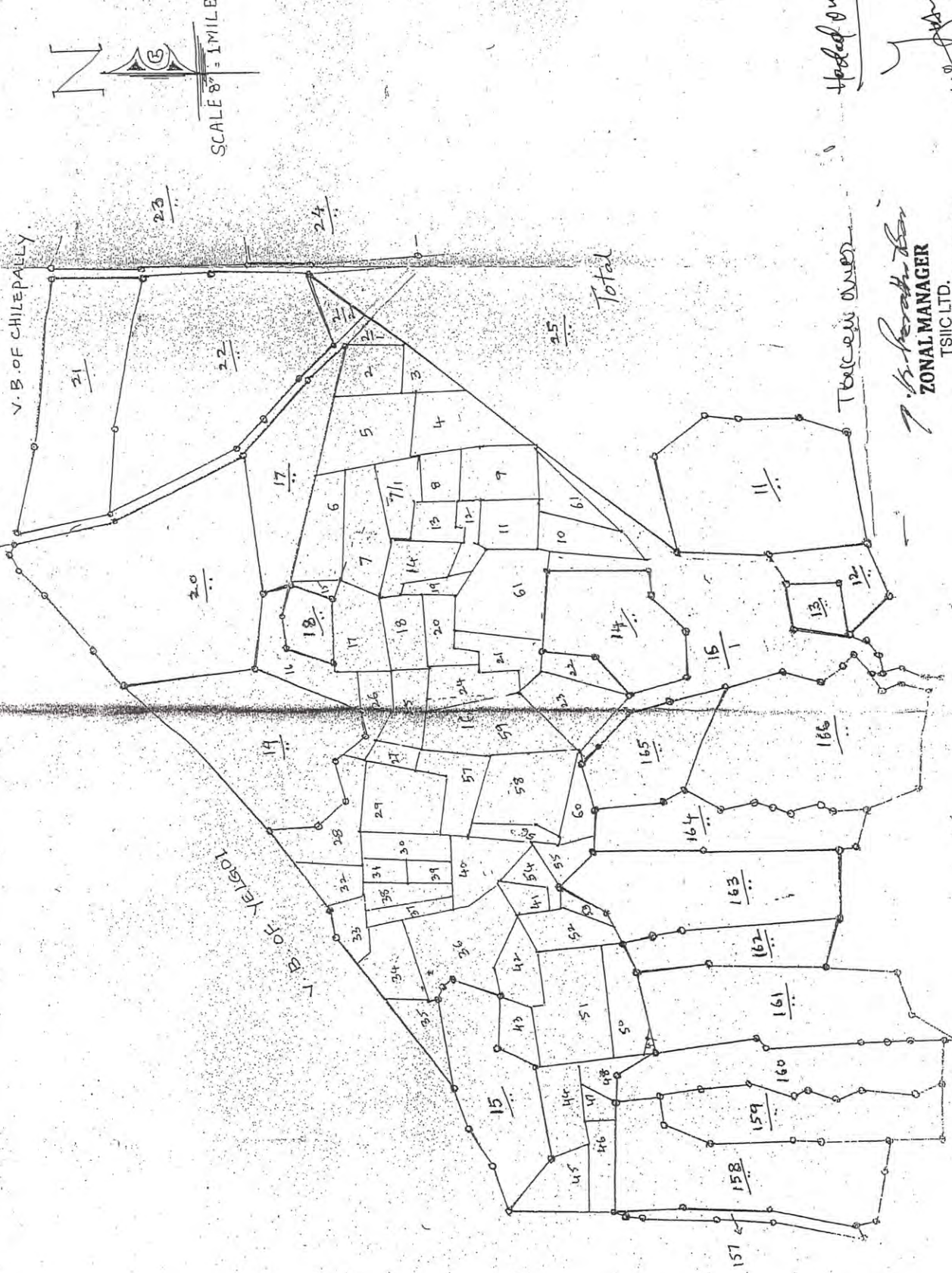
(1)	(2)	(3)	(4)	(5) <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">28</span>
51	ఊరకయ్యల కం నర్సయ్యల	16/MA	0-10	process no. B/78/2013
52	సమయ్యల కం నర్సయ్యల	16/YA	0-09	dt. 02-2016, — do —
53	పాపయ్యల కం నర్సయ్యల	16/RA	0-09	— do —
54	బి. కృష్ణవారి కం కళ్ళయ్యల	16/LA	1-24	— do —
55	కృష్ణ కం నాయుడు	16/SHA	1-01	— do —
56	వంకరి కం నాయుడు	16/SHA	1-01	— do —
57	కె. శయపాలి కం నారయ్యల	16/SA	1-20	— do —
58	సుబ్రహ్మణ్య కాయమ్మ వం. సంకర్షణ	16/Ab	1-00	— do —
59	కాంతమ్మ వం. రాజరాజు	16/AT/2	2-00	— do —
60	నామల కం నర్సయ్యలు	16/AG	0-00	— do —
61	ఊరకయ్యల కం నర్సయ్యలు	16/AG	1-00	— do —
62	బి. శంకర్ కం నాగర్షణ	16/10	3-00	— do —
63	CA. శివారావు కం నాగర్షణ	16/AST/1	0-13	— do —
64	CA. లక్ష్మణ వం. మోహయ్యల	16/AST/2	0-14	— do —
65	CA. శివారావు కం నర్సయ్య	16/AST/1	0-13	— do —
66	CA. లక్ష్మణ వం. మోహయ్యల	16/AST/2	0-13	— do —
67	నాగరాజు కం వం. M.D. మోహయ్యల	16/A3	1-03	— do —
68	నాగరాజు కం వం. M.D. మోహయ్యల	16/A3	1-03	— do —
69	నాగరాజు కం వం. M.D. మోహయ్యల	16/E3	1-02	— do —
70	M.D. శివారావు కం M.D. మోహయ్యల	16/44/1	1-03	— do —
71	మంజుల నర్సయ్యల వం. బి. శంకర్	16/24	1-20	— do —
72	ఊరకయ్యల కం మల్లయ్యల	16/R4	2-00	— do —
73	ఊరకయ్యల కం మల్లయ్యల	16/5a	0-08	— do —
74	CA. వెంకట కం లింగయ్యల	16/Da	2-00	— do —
75	యెల్లారావు కం మోహయ్యల	16/26	2-00	— do —
76	నర్సయ్యల వం. లక్ష్మణయ్యల	16/27	2-00	— do —
77	రత్నమ్మ వం. కళ్ళయ్యల	16/28	1-20	— do —
78	లింగయ్యల కం మల్లయ్యల వం. బి. శంకర్	16/9	2-00	— do —
79	మోహయ్యల వం. వెంకట	16/1	2-00	— do —

37-26 ✓

(1)	(2)	(3)	(4)	(5)
80	శ్రీశక్తి ఎం యెసయ్య	16/29	0-30	proce-no.B/781/2013 నా-02-2016
81	బుచ్చయ్య ఎం సంపత్	16/4/2	0-30	- do -
82	మంజుల ఎం జికోటి	16/21/2	0-30	- do -
83	రత్నం కం సాయన్న	16/Ru	5-00	- do -
84	Ch. నర్సిమలలు కం బాగప్ప	16/17	2-00	- do -
85	A. సురేని కం జికోటి	16/AA1	0-36	- do -
86	A. మానికొ రాజ్య కం జికోటి	16/AA2	0-36	- do -
87	కేశవలు ఎం సంగమ్మ	16	1-20	- do -
88	కామయ్య కం తింజయ్య	16/SHA	3-00	- do -
89	వీరయ్య కం నర్సియ్య వూల	16/A13	1-00	- do -
90	తిలక నర్సియ్య ఎం తింజయ్య	16/22	2-00	- do -
91	రామయ్య	16/A20/1	2-00	- do -
92	బోగార మొగులయ్య ఎం తుక్కయ్య	16/A18	1-00	- do -
93	బోగార బుచ్చయ్య ఎం తుక్కయ్య	16/A19	1-00	- do -
94	తిమ్మలయ్య స్వామి కం కంకయ్య స్వామి	16	2-00	- do -
95	M. వసంత ఎం కృష్ణ	16/6	2-00	- do -
96	శేఖ ఎం పండరి	16/DHA1	2-00	- do -
97	సురేని కం జికోటి	16/LU	0-04	- do -
98	మానికొ రాజ్య కం జికోటి	16/LU1	0-04	- do -
99	సమ్మయ్య కం బాలయ్య బోగార	16/KA	3-00	- do -
100	మాణయ్య కం వీరయ్య టెంకల	16/KAA	2-00	- do -
101	భవనయ్య కం నాగయ్య నాగం	16/NA	2-10	- do -
102	తిమ్మలొ కం సమ్మయ్య	16/KSHA	0-26	- do -
103	సంజీవ్ కం నమయ్య	16/ROUTE	0-35	- do -
104	నాగయ్య ఎం సాయన్న శంకల	16/A1	0-19	- do -
105	తిలక మాణయ్య ఎం బాలయ్య	16/2	2-00	- do -
106	రామయ్య ఎం సంజీవ్	16/7	2-00	- do -
107	అనుశయ్య ఎం వెంకట	16/ROUTE	2-20	- do -
			44-20	



ENJOYEMENT SURVEY. LOCATION: SKETCH MAP OF SY NO. 16 VILLAGE BARDIPUR MANDAL JHARASANGAM MEDAK DIST.



33

Handed over by

*[Signature]*  
ZONAL MANAGER

TSIC LTD.  
Zonal Office, Patancheru, Medak Dist.

*[Signature]*  
Revenue Inspector  
Jharasangam



31

GOVERNMENT OF TELANGANA  
OFFICE OF THE TAHSILDAR JHARASANGAM MANDAL, SANGAREDDY DISTRICT.



No.B/781 /2013

Dated. 24.12.2016

POSSESSION CERTIFICATE

It is to Certify that, as per the permission issued by the Revenue Divisional Officer Sangareddy., vide Lr.No. B3/12415/2015 dated 23.11.2016 to handover the assigned lands Physical possession in Sy.No. 16 to an extent of Acs. 174.21 gts situated at Bardipur village, Jharasangam Mandal, Sangareddy District, which was procured for establishment of National Investment and Manufacturing Zone (NIMZ) . The said land physical possession handed over on 24.12.2016 to the Zonal Manager, TSIIIC Ltd., Patancheru.

HANDED OVER  
*[Signature]*  
24/12/16  
Mandal Revenue Inspector  
Jharasangam Mandal.

TAKEN OVER  
*[Signature]*  
ZONAL MANAGER  
Zonal Manager  
TSIIC Ltd., PATANCHERU Dist  
Zonal Office, Patancheru, Mandal Dist

// Attested //

*[Signature]*  
27/12/16  
TAHSILDAR  
Jharasangam Mandal,  
Sangareddy Dist. Telangana State

పంచనామ

- అహమ్మద్ నగర్ ధర్మాసంగం మండలము, సంగారెడ్డి జిల్లా  
 గాఠిచే నిర్వహించబడిన పంచనామ తేది: 16.10.2018  
 (త్ర.సంఖ్య). పంచులపేరు తాత్రపేరు వయస్సు కులము వృత్తి నివాసము
1. కె. కేశవరావు కేశవరావు 45 సం. 60 వ్రాసాం బద్దివీధి
  2. బి. శ్రీనివాసులు తా. నాగయ్య 50 " "
  3. కె. కేశవులు తా. నాగయ్య 60 " "



మేము ముస్లింలను పంచులను అహమ్మద్ నగర్ ధర్మాసంగం  
 గాఠి పేరుపై మేము గాఠి పంచాయతీ కార్యాలయము బద్దివీధి  
 వద్దకు చేరుకొని అక్కడ మేము గాఠి రెవెన్యూ సహాయకులు,  
 గాఠి రెవెన్యూ అధికారి బద్దివీధి మరియు జూనియర్ మేనేజర్  
 TSIIC Ltd. పటాన్ చేరు అధికారులను కలిసి బద్దివీధి  
 గాఠి పంచాయతీ స.సం. 16/10/18 తేదీన కులములను  
 మరియు 163 పట్టా కులము మొత్తంపై పరిశీలించగా అట్ట  
 కులములను ప్రత్యేక డిప్యూటీ కలెక్టర్ (LA) నిష్ట, జవీరాబాద్  
 గాఠి చట్ట ప్రకారము తగు విచారణ జరిపి కులములను, కలెక్టర్  
 నిష్ట అనుకూలంగా అవార్డు ఉత్తర్వు సం. 53/NIM2/2018 తేది:  
 27.8.2018 ప్రకారము ఉత్తర్వుల జారీ చేసినారు. అట్ట ఉత్తర్వుల  
 ననుసరించి, అహమ్మద్ నగర్ ధర్మాసంగం గాఠి కలిగిన తెలివైన  
 కులములను దాగులనుండి లావుగా మరియు పట్టా కులములను మా  
 ముట్ట ప్రభుత్వ స్వాధీనము చేసినారు. అట్ట స్వాధీనము  
 చేసినప్పుడు కులములను తిరిగి మా ముట్ట జూనియర్ మేనేజర్  
 TSIIC Ltd. పటాన్ చేరు గాఠి అట్ట స్వాధీనము చేసినారు.  
 అట్ట స్వాధీనము చేసినప్పుడు కులములను నిష్ట బ్యారా పరిశ్రమ  
 సలకాబ్దుకు స్వాధీనము చేసినట్లు తెలివినారు. స్వాధీనపరచిన  
 లావుగా కులములను ఎకరము లకుంటికి రూ. 4, 25,000/- చొప్పున  
 మరియు పట్టా కులములను ఎకరముకుంటికి రూ. 7,00,000/- చొప్పున  
 నష్ట పరిష్కారము కులములను మాకు చెల్లించినట్లు తెలివినారు

రిపోజిట్ క్రితము ప్రతికరణ చేయుట  
 వివాదాస్పదమే ఏకాగ్రతము చెల్లించిన కృత్యము  
 3-23 నుండి లాభము కలిగి కలిగి వచ్చిన  
 స్వాధీన ఏకాగ్రత.

స్వాధీన ఏకాగ్రత రిపోజిట్ కృత్యము లబ్ధిదారుల  
 వివరములు క్రింది పట్టికలకు ఏకాగ్రతలు ఏకాగ్రతలు  
 ప్రాధికారము కలిగి ఉన్నాయి. ఉదా. కృత్యము ప్రాధికారము  
 కృత్యము లబ్ధిదారులు ~~(2)~~ ప్రాధికారము కలిగి ఉన్నాయి  
 ప్రాధికారము (2) కుంది లబ్ధిదారులు ఏకాగ్రతము: 26-06-1954  
 (లాభము) 24-20 నుండి కృత్యము ఏకాగ్రతము (26-06-1954)  
 కృత్యము ఏకాగ్రతము చెల్లించిన లాభము కలిగి వచ్చిన  
 లబ్ధిదారులు (4) నుండి కృత్యము ఏకాగ్రతము: 29-29-1954.  
 ప్రాధికారము కలిగి ఉన్నాయి కృత్యము ఏకాగ్రతము కృత్యము  
 ఏకాగ్రతము కలిగి ఉన్నాయి ఏకాగ్రతము కృత్యము  
 ఏకాగ్రతము కలిగి ఉన్నాయి ఏకాగ్రతము కృత్యము

M. S. Jhara Sangam  
 M. S. Jhara Sangam

ఏకాగ్రత ఏకాగ్రతము

1. 
2. 
3. K. Dutta

Handled over by  
 Mr

**P. V. Perathri Ven**  
**ZONAL MANAGER**  
**TSHC LTD.**  
 Zonal Office, Palancheru, Sangareddy Dist.

  
**TAHSILDAR**  
 Jharasangam Mandal,  
 Sangareddy Dist. Telangana State


బుద్ధివూరి గ్రామము, ఊరసంగమ మండలము తే. 1610.2018  
 తొలిసారి తహశీల్దార్ కుర్రాసంగమ గారు, జూనియర్ మేనేజర్ T.S.II.C గారు  
 స్వీకృతపత్రాలను భూముల వివరములు

క్రమ సంఖ్య	అక్షులకు స్వీకృతము చేసిన భూముల వివరములు/ అంకం/ భక్తి పేరు	నాన్ రెవెన్యూ	విస్తీర్ణం	అక్షులకు స్వీకృతము చేసిన తేదీ
1	2	3	4	5
1.	కే. రాజు అంకం సంగమ్మ	16/21/1	1-20	53/NIMZ/201
2.	బి. బుచ్చి శక్తి సంగమ్మ	16/21/1	1-20	తే. 27.8.2018
3.	ఎస్. వత్స అంకం వెంకట	16/23/1	1-20	-తదా-
4.	బి. రాజు అంకం మొగులమ్మ	16/27/1	1-20	"
5.	కే. మాన్ రోడ్ అంకం మొగులమ్మ	16/27/2	1-20	"
6.	ప్రొద్దే శక్తి వాసమ్మ	16/30	1-20	"
7.	బి. మంజుల శక్తి క్రొవ్వు	16/31	1-20	"
8.	కె.ఎ.ఎ. నిర్మల శక్తి క్రొవ్వు	16/8/1	1-20	"
9.	మల్లప అంకం శక్తి	16/A5/2	1-00	"
10.	వీరమ్మ శక్తి నర్సయ్య	16/YA/1	1-20	"
11.	రాజేందర్ అంకం మొగులమ్మ	16/4AA	2-00	"
12.	బి. నర్సయ్య అంకం సంగమ్మ	16/A8	1-00	"
13.	కే. నర్సయ్య అంకం సంగమ్మ	16/A9/1	1-00	"
14.	నాగి లంగయ్య అంకం నర్సయ్య	16/A15/A	0-17	"
15.	నాగి లంగయ్య అంకం నర్సయ్య	16/A16	1-13	"
16.	విన్నాదమ్మ శక్తి నర్సయ్య	16/TAA/1/1	1-00	"
17.	బి. రాజు అంకం సంగమ్మ	16/A5/1	1-00	"
18.	కల్పన శక్తి శామ్	16/23	1-10	"
19.	కె. వెన్నెల అంకం ప్రసాద్	17/ఎ	0-20	"
20.	కె. వాసన్ అంకం కె.ఎ.ఎ. (ప్రసాద్)	17/ఎ/ఎ	0-20	"

1	2	3	4	5
21	ఎన్. కేశవదాసి కంట్రి సామయ్య	163/L0/1	1-26	53/10/11/21 201 తే. 27.8.2018
22	శ్రీ ఆము పురుషోత్తమ చైతన్య క్లబ్ సభ్యులను చేసు కొనవలసిన భూవివరములు			
22	శ్రీ కలి సామయ్య కంట్రి సంగయ్య	16/4/1	1-00	} 3-23
23	జి. సంగయ్య కంట్రి మరెప్ప	16/22	0-15	
24	వి. తుకలమ్మ కర్ర పెంబయ్య	16/22	2-00	
25	అర్జునయ్య కంట్రి మెలయ్య	16/21	0-08	
మొత్తము		05	29-29	

**ABSTRACT**

SyNo.	Ext
16	Ac. 27-03 Assigned Land
17	" 1-00 " "
163	" 1-26 Pattaland
<b>Total : 29-29</b>	

1) 

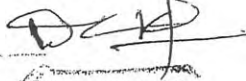
2) 

3) K. Debbi


Handled over by  
 Me

**P. V. Venkatesh Babu**  
**ZONAL MANAGER**  
**TSUC LTD.**  
 Zonal Office, Palancheru, Sangareddy Dist.

  
**TANILDAR**  
 Jharasangam Mandal,  
 Sangareddy Dist, Telangana State

GOVERNMENT OF TELANGANA  
OFFICE OF THE TAHSILDAR JHARASANGAM MANDAL SANGAREDDY DISTRICT

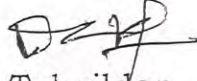
Lr.No.B/781/2013

Date: 16-10-2018

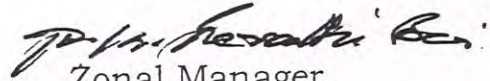
POSSESSION CERTIFICATE

It is to certify that, as per the consent award passed by the Special Deputy Collector (LA) NIMZ Zaheerabad vide proceeding No.53/NIMZ/2018, Dated.27-08-2018 to hand over land physical possession in Sy.No.16 extent Ac.23-20 gts, and earlier missing extent Ac.3-23 gts in Sy.No.17 extent Ac.1-00 and in Sy.No.163 extent Ac.1-26 gts total extent Ac.29-29 gts situated at Bardipur village Jharasangam Mandal Sangareddy District which was procured for establishment of National Investment of Manufacturing Zone (NIMZ). The said land physical possession handed over on 16-10-2018 to the Zonal Manager TSIIC Ltd, Patancheru.

Handed over

  
Tahsildar,  
Jharasangam Mandal,  
Jharasangam Mandal,  
Sangareddy Dist, Telangana State

Taken over

  
Zonal Manager,  
TSIIC Ltd, Patancheru.  
**ZONAL MANAGER**  
**TSIIC LTD.**  
Zonal Office, Patancheru, Sangareddy Dist.

TSIIC LTD.

1598

MINUTES OF THE DISTRICT LEVEL LAND PROCUREMENT COMMITTEE  
MEETING FOR ACQUISITION OF LANDS FOR ESTABLISHMENT OF  
NATIONAL INVESTMENT AND MANUFACTURING ZONE (NIMZ) IN  
BARDIPUR VILLAGE OF JHARASANGAM MANDAL HELD  
ON 19.01.2016, 11.00 AM AT COLLECTORATE, MEDAK DISTRICT

Present: Sri. D. Ronald Rose IAS.

No. G1/ 1145 /2013

Dated:27:01:2016

The following Officers are present:

1. Sri. P. Venkatarama Reddy, IAS., Joint Collector, Medak
2. Sri. K. Madhukar Reddy, Revenue Divisional Officer, Sangareddy.
3. Sri.Raghu Babu District Registrar, Medak at Sangareddy
4. Superintending Engineer (RWS), Division Sangareddy
5. Executive Engineer (RWS), Division Sangareddy
6. Asst.Director (Horticulture), Sangareddy
7. Divisional Forest Officer, Medak
8. Smt.Revathibai, Zonal Manager, TSIIC, Patancheru
9. Executive Engineer (R&B), Division Sangareddy.
10. Tahsildar Jharasangam Mandal

:-o0o:-

At the outset, the District Collector Medak welcomed all the Officials and Pattedars, other elders of Bardipur (Vg) of Jharasangam (Mdl) who participated in District Level Land procurement Committee meeting, and emphasized the importance of procurement of lands for establishment of National Investment and Manufacturing Zone (NIMZ), explained in detail about the procurement of land from the willing land owners in terms of GO Ms No. 123 Rev (JA&LA) Dept. Dated: 30.07.2015.

The Chairman DLLPC & District Collector Medak has appreciated the Pattedars / Land owners for coming forward to participate in the development process by giving their willingness to sell their land for establishment of (NIMZ).

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*Tahsildar  
Sangareddy  
27/01/2016  
27/01/2016  
to H.O*

The Chairman & District Collector Medak informed the Pattedars that, the requisition is received from Zonal Manager, TSIIC, Patancheru to an extent of Acres 319.05 gts in Bardipur (Vg) of Jharasangam (Mdl) for establishment of National Investment and Manufacturing Zone (NIMZ). The notification in terms of GO Ms No. 123 Rev (JA&LA) Dept. Dt: 30.07.2015 has been approved and published to an extent of Acres 147.12 ½ gts.

On receipt of the requisition from the TSIIC authorities, the District Level Land Procurement Committee headed by the District Collector as Chairman is formed in terms of GO Ms No. 123 Rev (JA&LA) Dept. Dated:30.07.2015 for procurement of land from the willing land owners. Further, the team of Revenue, Survey Department, TSIIC officials has inspected the area required for establishment of National Investment and Manufacturing Zone (NIMZ) and prepared the details of the land to be procured from the land owners / Pattedars. The team of officials consulted the effecting land owners / Pattedars as per the enjoyment survey done during the spot inspection and explained them about the procurement of land by willing Pattedars/ land owners for a consideration on the basis of the agreement between them and procuring agency as per G.O,Ms., No. 123 Rev (JA&LA) Dept. Dated:30.07.2015 and requested them to come forward to sell their lands and requested to participate in the development process giving their willingness in terms of said GO. The Pattedars / land owners having satisfied with the details explained by the officials about the procurement of land in terms of said G.O., have shown their interest to sell their lands willingly and to participate in the development in the large interest of the public.

The District Collector & Chairman, District Level Land Procurement Committee informed the Pattedars / Land Owners that, this meeting is called to hold discussions with them for fixing value of the land being procured and invited to express their views on payment of sale consideration to sell their lands, called for the claims objection suggestions if any. Some of the Pattedars / Land Owners have expressed that, their livelihood is depending on their agriculture lands only, due to acquiring their agriculture

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lands they are losing their livelihood and requested to provide suitable assistance in addition to the value of the land being paid to them. Most of the Pattedars / land owners also expressed their view that, it will be very helpful for their families to eak their livelihood, if any assistance like subsidy, farming units, drip systems etc., are provided to them in addition to the payment of land value as they are utterly depended on existing land and on giving their land for development purpose, it will affect on their day to day life.

The Basic land value/Sale particulars for preceding (3) years of Bardipur (Vg) have been obtained from Sub Registrar Office, Zahirabad. The Basic land value of village is Rs.60,000.00. On verification of the sale particulars it seems that the sale transactions took place in the village as per Basic land values only, but the prevailing market value in the village ranges from Rs.4.00 to 7.00 lakhs, basing on the location of land. All the lands which are going to be procured in the village are fertile lands and nearer to National high way, Bidar and Zaheerabad town.

After hearing the views of the Pattedars / Land owners, negotiations were held with them and finally the procuring agency and the Pattedars have agreed for payment of sale consideration to the land being procured for establishment of NIMZ as stated below in the DLLPC meeting conducted on 19.01.2016.

Sl. No	Name of the Mandal	Name of the Village	Rate Finalized by the DLLPC per Acre.
1	Jharasangam	Bardipur	5,65,000.00 (Patta Land)

The consideration as agreed by the individual land owner / owners and Procuring Agency before the District Level Land Procurement Committee shall inter-alia, include the value of land and property, perceived loss of livelihood, equivalent costs required for rehabilitation and resettlement of willing land owners and other.

It has been also decided to make payments of structure values, are affected in the NIMZ as such the land values are as shown below:

ANNEXUREName of the Mandal: **Jharasangam**Name of the Village : **Bardipur**

Sl.No.	Sy.No.	Name of the Pattedar	Extent	Land compensation amount (@ Rs.5.65 lakhs per acre)
1	14	Jangli Laxmi W/o Bichanna	2.08	1243000
2	14/A/A	Jangli Sangeetha W/o Narsimulu	2.08	1243000
3	14/A	Bandameedi Srinivas S/o Ramulu	2.28	1525500
4	14/AA1	Dhununjai S/o Ramulu	2.33	1596125
5	15/A	A.Krupanjali W/o Balakrishna Reddy	2.34	1610250
6	15/A2	P.Udaya Shanker S/o Subbarao	2.34	1610250
7	15/E1	P.Sai Latha W/o Srinivas	1.16 1/2	798062.5
8	15/AA2	Venkatalaxmi W/o Venkata Naidu	1.16 1/2	798062.5
9	15/E	P.Udaya Shanker S/o Subbarao	1.16 1/2	798062.5
10	15/E2	A.Krupanjali W/o Balakrishna Reddy	1.17	805125
11	17/A2	K.Sai Ram Reddy S/o Bhadra Reddy	1.39	1115875
12	17/A1		1.39	1115875
13	17/AA1		2.20	1412500
14	17/AA2		2.20	1412500
15	17/A	Singari Shirisha W/o Sai Nath Kumar	1.00	565000
16	17/AA	K.Vaishnavi D/o KLN.Prasad	0.20	282500
17	17/A/A	K.Hasini D/o KLN.Prasad	0.20	282500
18	18	Naganna S/o Laxmanna	0.28	395500
19	18/AA	K.Sai Ram Reddy S/o Bhadra reddy	0.28	395500
20	18/A	Nikitha Reddy S/o Bhadra Reddy	1.16	791000
21	19/AA	Naganna S/o Laxmanna	4.30	2683750
22	19/AA1	Jarnaiah S/o Ramchander	1.30	988750
23	19/E3/1	Hari Shanker Prasad S/o Jarnappa	1.05	635625
24	19/A1	K.Nikitha Reddy D/o Bhadra Reddy	1.00	565000
25	19/E3	Sai Ram Reddy S/o Bhadra Reddy	1.05	635625
26	19/E2		1.30	988750
27	19/E1		3.00	1695000
28	19/E2/1		3.00	1695000
29	19/A		5.30	3248750
30	20/A	Sakkubai D/o Gundanna	3.30	2118750
31	20/AA4	T.Anusuja W/o Yadagiri	2.25	1483125
32	20/E	Baswaraj S/o Ramanna	3.38	2231750
33	20/EE	Krishna S/o Ramanna	3.38	2231750

34	20/U	Narsamma W/o Dattu	3.00	1695000
35	20/U1	Dattu S/o Narsappa	4.35	2754375
36	20/AA/1	Sai Ram Reddy S/o Bhadra Reddy	5.11	2980375
37	20/AA	Md.Ahmed S/o Ismail	1.00	565000
38	20/A1	BN.Sriniva S/o Narsappa	1.20	847500
39	20/AA/1/1		0.20	282500
40	20/AA1		1.05	635625
41	21/A	Krishna S/o Sanganna	2.00	1130000
42	21/AA1	Jayasri W/o Sangaram	3.17	1935125
43	21/AA2		1.17	805125
44	21/EE	Ramgonda S/o Yelgonda	1.19	833375
45	21/EE1	Golla Yadamma W/o Manenna	1.18	819250
46	21/U	Pentanna S/o Ramanna	2.20	1412500
47	21/UU	Sangram S/o Veerbadrappa	4.11	2415375
48	21/E	Golla Yadamma W/o Mallanna	4.00	2260000
49	21/UU1	Vanamala Sravanthi W/o Anil Kumar	1.06	649750
50	22/EE1	Golla Pamavathi W/o Krishna	0.15	211875
51	22/I		1.06	649750
52	22/E1	G.Rekah W/o Pandari	0.15	211875
53	22/UU	Pentanna S/o Ramanna	1.00	565000
54	22/Ru1	Pandari S/o Gayappa	1.13	748625
55	22/Ru2	Krishna S/o Gayappa	0.07	98875
56	22/Ru1/1	A.Ashok S/o Kistaiah	7.00	3955000
57	22/UU/1	Swaroopa W/o Ashok	5.00	2825000
58	22/I1	B.Yellamma W/o Amruth	1.10	706250
59	22/A	Begari Amruth S/o Yellappa	2.06	1214750
60	22/I/1	Laxmi Patil W/o Ganapathi Patil	1.00	565000
61	22/U3	Ganapathi Patil S/o Chinnagi Patil	1.00	565000
62	22/AA	BN.Srinivas S/o Narsappa	1.00	565000
63	22/E		1.00	565000
64	22/AA1	Baswaboini.Krishna S/o Sathaiah	1.00	565000
65	22/AA2		1.00	565000
66	22/EE	K.Anjamma W/o Anatiah	1.00	565000
67	22/a	Battani Pandari S/o Pentaiah	0.04	56500
68	22/EE1	Ambalal S/o Chinagi patil	1.00	565000
69	22/EE2	Rasuben S/o Laxman	0.15	211875
70	22/UU1		0.25	353125
71	22/AA/1	Abimanya kumar S/o Adivaiah	1.00	565000
72	22/EE/2		1.00	565000
73	22/U	Amruth S/o Yellappa	1.25	918125
74	22/EE/3	Md.Qadeer Pasha S/o Yousuf Pasha	3.10	1836250
		<b>TOTAL</b>	<b>147.12 ½</b>	<b>83231563</b>

( Rupees in words Eight crores thirty two lakhs thirty one thousand five hundred and sixty three only )

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Regarding the structure values the Land Acquisition Officer & Revenue Divisional Officer, Sangareddy/Tahsildar, Jharasangam are hereby authorized to pay the structure values to the beneficiaries as per values fixed by concerned departmental authorities like E.E RWS, Sangareddy/EE R&B Sangareddy, Asst. Director of Horticulture, Sangareddy. Divisional Forest Officer, Medak etc., in the matter.

Further, the land owners and Pattedars stated that, they are willing to sell their lands for the sale consideration as agreed above, finalized by the committee and also stated that, they will not approach any forum for further enhancement of the said sale consideration.

The RDO Sangareddy is requested to make payment of land compensation along with structure values including paper publication charges through cheques, since required funds has already been provided by the TSIIC department .

Further, the RDO Sangareddy has to get the lands registered in favour of Zonal Manager TSIIC Patancheru represented by concerned Tahsildars and also to hand over the possession of lands to the procuring agency under proper panchanama. The Procuring Agency shall take possession of the lands from the RDO Sangareddy i.e., Land Procurement Officer.

Keeping in view of the requests made by the Pattedars / Land owners and their economic situation, the District Collector and Chairman, has assured them that, the suitable assistance as requested will be provided to them under various Government Schemes for improvement of their agricultural activities and financial status treating as a special case.

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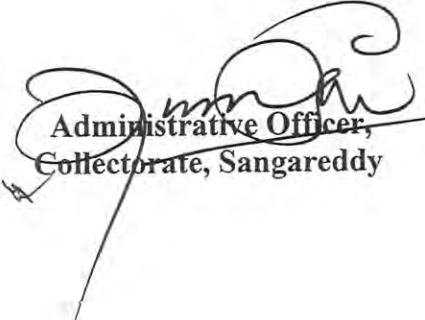
The Chairman DLLPC & District Collector has finally issued instructions to all the concerned officials for taking follow-up necessary action for making payments to the Pattedars Village wise as shown above and to get registered the land in favour of procuring agency.

With the above discussions/decisions, the meeting is concluded.

**Sd/-  
District Collector  
Medak at Sangareddy**

To  
The Revenue Divisional Officer, Sangareddy  
The Zonal Manager, TSIIC, Patancheru  
The Superintending Engineer (RWS) Sangareddy  
The District Registrar, Medak at Sangareddy.  
The Executive Engineer RWS, Sangareddy  
The Executive Engineer R&B Sangareddy  
The Asst. Director of Horticulture, Sangareddy  
The Tahsildar Jharasangam Mandal  
The Sub-Registrar, Zahirabad  
Copy to CC to Collector/ Joint Collector / DRO/ AO's table.

// Attested //

  
**Administrative Officer,  
Collectorate, Sangareddy**

GOVERNMENT OF TELANGANA  
PROCEEDINGS OF THE DISTRICT COLLECTOR, SANGAREDDY  
PRESENT: DR. VASAM VENKATESWARLU I.A.S.,

Proc.No.G1/345/2018

date: 20.08.2018

Sub: Land Acquisition- Sangareddy District - Jharasangham Mandal-  
**Bardhipur (V)** - For an extent of Ac.26.06 Gts., for establishment of NIMZ  
Project- Form-C and Form-F Approved-Submission of negotiation  
proposals under Consent Award- Approved-Orders issued.

- Read: 1. Requisition received from Zonal Manager, TSIIC, Patancheru  
2. Special Deputy Collector ( LA), NIMZ, Zaheerabad Lr.No. 53/NIMZ/2018,  
dt: 07.06.2018  
3. This Office Lr.No. G1/345/2018, dt: 18.06.2018  
4. Special Deputy Collector ( LA), NIMZ, Zaheerabad Lr.No. 53/NIMZ/2018,  
dt: 12.07.2018  
5. This Office Lr.No. G1/345/2018, dt: 18.06.2018

&&&

**ORDER:**

The Vice Chairman & Managing Director, TSIIC has accorded permission to the Zonal Manager, TSIIC, Patancheru to file requisition for acquisition, procurement of Patta land for an extent of Ac.92.35 Gts., and Govt. assigned land to an extent of Ac.40.32 Gts., of Bardhipur (V) of Jharasangham (M) for establishment of NIMZ Project.

In the reference 2<sup>nd</sup> cited, the Special Deputy Collector ( LA), NIMZ, Zaheerabad has submitted the Notification in Form -C as per G.O.Ms.No.120, Revenue (JA& LA) Dept., dt: 30.06.2017 to an extent of Ac.30.15 Gts., situated at Bardhipur (V) of Jharasangham (M) to be acquired for establishment of NIMZ Project and the same has been approved 14.06.2018 and got published in the news papers as per the provisions of land Acquisition Act.

In the reference 4<sup>th</sup> cited, the Special Deputy Collector ( LA), NIMZ, Zaheerabad has reported that on approval of Notification ( Form-C) for acquisition of lands for an extent of Ac.30.15 Gts., situated at Bardhipur (V) of Jharasangham (M) for establishment of NIMZ project has published in the locality. The Negotiation meeting has been conducted by the SDC ( LA), NIMZ, Zaheerabad on 22.06.2018 with the notified persons under participation of Zonal Manager, TSIIC, Patancheru and Tahsildar, Jharasangham Mandal. After discussion

Contd...02

it was decided for payment of Rs. 7.00 Lakhs ( Rupees Seven Lakhs only) per acre to the pattedars and Rs. 4,25,000/- ( Rupees Four Lakhs Twenty Five Thousand only) per acre to the assignees . Accordingly, the assignees/ Pattedar have given their consent in Form-E-1 as agreed before the Negotiation Committee.

The SDC ( LA), NIMZ, Zaheerabad further reported that the pattedars in Sy.No. 22 for an extent of Ac. 4.09 Gts., are presently in abroad, thereby their agreements are not taken in form E1. Therefore their names excluded in the Notification in Form-F . The Special Deputy Collector ( LA), NIMZ, Zaheerabad Mandal has submitted the Notification in Form-F proposals as per the provisions of the G.O.Ms.No.120, Revenue ( JA& LA) Dept., dt: 30.06.2017 for an extent of Ac. 26.06Gts., situated at Bardhipur (V) of Jharasagham Mandal.

The Government have issued instructions in G.O.Ms.No.120, Revenue (JA& LA) Dept., dt: 30.06.2017 regarding the consent award "*The Award passed under Rule 9, shall provide higher compensation than what could have been provided under the provisions in Section 30 &31 of the Right to Fair Compensation and Transparency in Land Acquisition, rehabilitation and Resettlement Act 2013 read with rules 26 to 28 of the Telangana State Right to Fair Compensation and Transparency in Land Acquisition, rehabilitation and Resettlement rules 2014*".

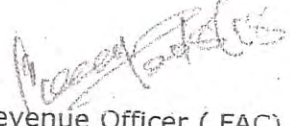
In the reference 4<sup>th</sup> cited, the Special Deputy Collector ( LA), NIMZ Project, Zaheerabad has submitted the Notification in Form-F along with the minutes of negotiation meeting for acquisition of lands to an extent of Ac.26.06 Gts., pertaining to Bardhipur (V) of Jharasagham (M) for establishment of NIMZ Project.

The Notification in Form-F submitted by the Special Deputy Collector ( LA), NIMZ Project, Zaheerabad has been approved on 01.08.2018 and sent for publication to the Commissioner, I & PR, T.S., Hyderabad for calling claims and objections, if any, to be filed before the District Collector/ SDC ( LA), NIMZ, Zaheerabad within seven days of publication of Notification in Form-F.

-03-

In view of the above circumstances and provisions of Act and rules, the Special Deputy Collector (LA), NIMZ Project, Zaheerabad is directed to obtain the agreement from the concerned assignees / Pattedar in Form- G1 and pass award accordingly.

// By Order//

  
District Revenue Officer ( FAC),  
Sangareddy

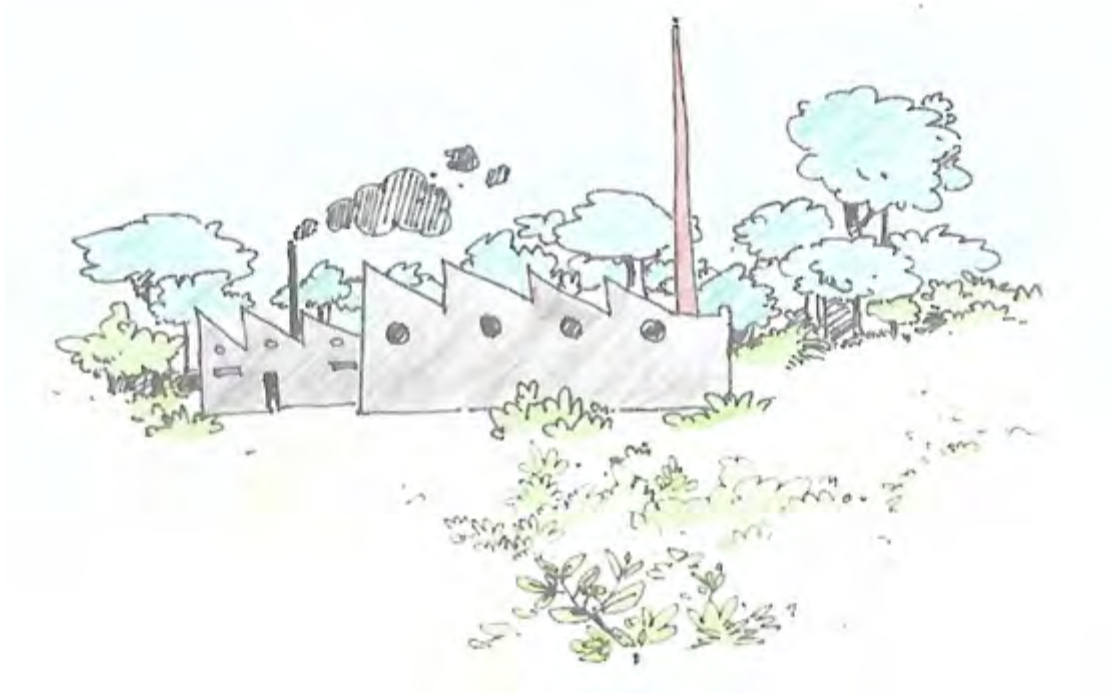
To,  
The Special Deputy Collector ( LA), NIMZ Project,  
Zaheerabad  
Copy submitted to the Vice Chairman & Managing Director, TSIIC Ltd., Parisrama Bhavan,  
6th Floor, Basheerbagh, Hyderabad  
Copy to the RDO, Zaheerabad  
Copy to the Zonal Manager, TSIIC, Patancheru  
Copy to the Tahsildar, Jharasangham Mandal  
Copy to CC to Collector/Joint Collector/DRO

**ANNEXURE -3**



# **Green Conservation Management Planning for NIMZ, Zaheerabad**

**Submitted to  
L&T Infrastructure Engineering Pvt. Ltd.**



**Prepared by  
Environment Matters and Oikos**

**September 2021**

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## 1. Preface

Telangana State Industrial Infrastructure Corporation Limited (TSIIC) has proposed to establish NIMZ at Nyalkal and Jharasangam Mandal's near Zaheerabad in Sangareddy District of Telangana in an area of @12,635 acres (Acres 12,635.14 gunthas, 5,113 ha) and will include both Category A and Category B Industries listed in the EIA notification, 2006, in pursuit of NMP of Department of Industry and Policy Promotion (DIPP) of Government of India.

The project proponent (TSIIC) has appointed the EIA Consultant M/s L&T Infrastructure Engineering Limited, Hyderabad for securing the Environmental Clearance of this project.

Based on the 258th meeting of Expert Appraisal Committee held on 17th -18th March, 2021, the EAC has suggested conduct of certain studies as part of their appraisal and asked the proponents to conduct the same so that the EC matter could be pursued further.

The conditions 9 and 10 of the minutes of the meeting issued by EAC, were as follows:

- ix. The proponent should develop a Greenery and Conservation management plan to sustain existing greenery.
- x. All tall and old and heritage native trees should be enumerated, GPS tagged and detailed in EIA EMP and plotting design should be such that all such trees are protected

L&T Infra Engineering commissioned the consortium of Environmental Matters and Oikos (hereafter referred as **Consultant**) through an Lol on 22<sup>nd</sup> June and a Work Order on 1<sup>st</sup> July 2021 to conduct an exercise based on the scope of work as required under the conditions 9 and 10 above and assist in complying with the requirements to the EAC's satisfaction.

The first step in developing the 'GCMP' was to understand landscape & biodiversity profile of entire 12,635 acres. It also involved analysis of available data regarding biodiversity and ecology along with the project area (contour maps, road network, land use, etc.).

An initial ecological survey and study visit was conducted during 12-16 July 2021, with the following objectives:

1. Familiarize the Consultant team with the Project location, scale and ambience
2. Understand Landscape, strata, present landuse
3. Understand Land classes and associated biodiversity
4. Study the status of natural resources like soil, water, streams, springs, etc. on site
5. Visit designated green areas in the proposed Master Plan of NIMZ and assess its suitability



Figure 1 Site Visit Pictures with the Team

Consultant's team of five specialist members (as listed below) accompanied by members of L&TIE team during first visit,

1. Rahul Datar, Team Lead of the Consultant on the overall assignment
2. Manasi Karandikar, Ecologist and Wildlife expert,
3. Ketaki Ghate, Ecologist and Botanist,
4. Sarika Gidde, Botanist and Survey Analyst,
5. Hrushikesh Desai, Architect
6. Dr. Subramanyam Nambaru, Senior Engineering Consultant, Area/Urban Planning & Environment, L&TIE
7. Diwan Adnan Khozem, Divisional Head, Area Urban Planning Division. L&TIE
8. Susruta Amirapu, Head, Environment Division, L&TIE (*could not attend the first site visit but is involved in all the project related interactions and discussions*)

**An Interim Report Version 1.0 was submitted to L&TIE as a first draft prepared based on the initial assessment after conduct of the site visit and preliminary analysis of the data. Subsequently discussions were held between EM, Oikos and L&TIE to finalize the green space areas considering practical constraints as well as critical ecological areas in the project. This Version 2.0 GCMP Report is based on these discussions.**

To arrive at a conservation management plan for local ecology & specific biodiversity, the following **guiding principles** were adopted:

- Embedding ecological thinking in locating, orienting, and configuring green belt area vis-a-vis proposed industrial landuse in the NIMZ
- Planning contiguous corridors to ensure internal connectivity in the green spaces, as far as practically possible
- Identifying and promoting native indigenous species of flora that will have a better chance of survival

- Balancing the requirements of ecological aspects and aesthetics in designing the green belt and landscape areas
- Seamlessly integrating in the design, the supporting requirements such as sapling nursery, natural / stormwater drainage, topography, soil matrix, groundwater etc.
- Factoring any regulatory requirements and recommendations of best practices / guidelines (such as IFC PS6 etc.)

The following documents were reviewed and will continue to be studied as the work progresses, as relevant to the scope of the assignment:

- Project Master Plan options, particularly the Phase I area being priority was focussed in the first site visit
- Project EIA (particularly focus to section 3.9 on Flora and Fauna survey, recommendations in EMP and relevant aspects)
- Supporting raw data on flora and fauna that would be relevant for the assignment
- Project drawings and plans including utility areas, etc.
- Key Resources related to guidance documents

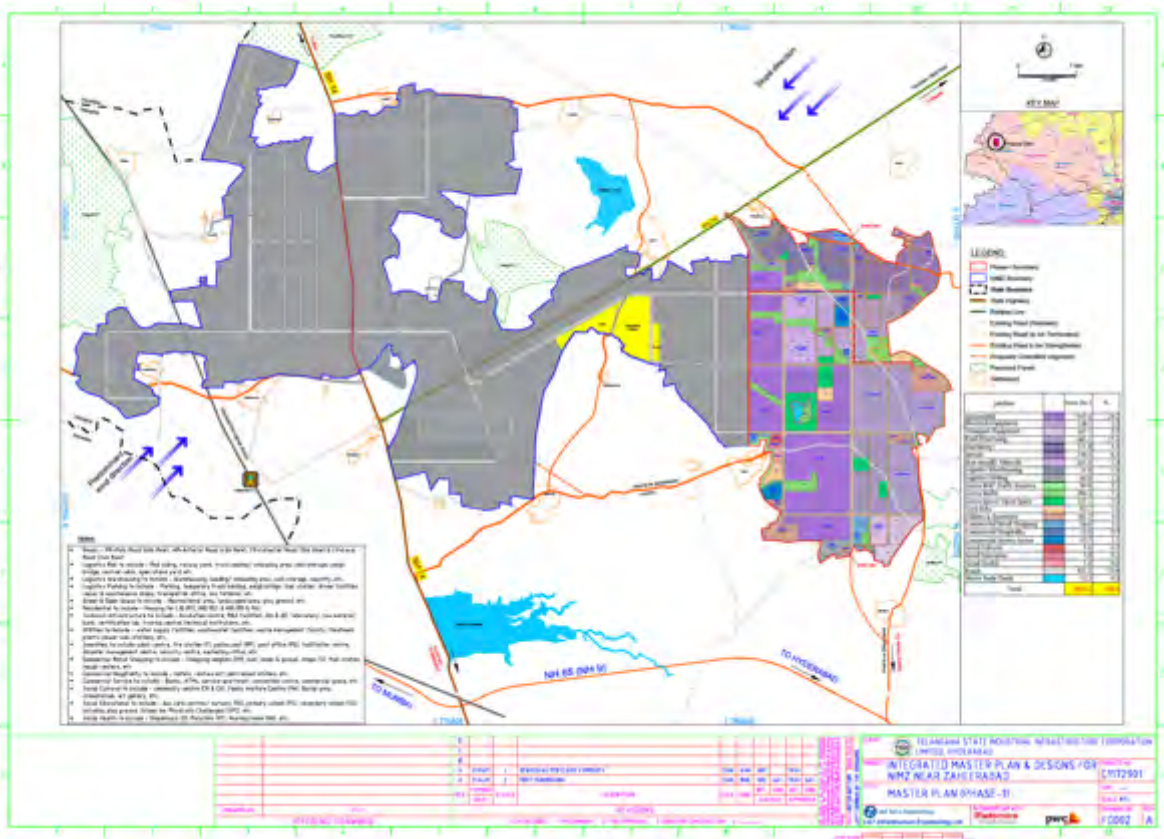


Figure 2 NIMZ Master Plan considered for this study (Phase I area was priority for the site visit)

## 2. Landscape & Regional context

The proposed NIMZ project area near Zaheerabad is part of a semi-arid landscape of India. The land is spread over a flat terrain, having majority area under existing or fallow agriculture, with few areas having gullies & slopes generally seen at the end of continuous lateritic cap. Various land classes identified for analysis include Streams, agriculture, agriculture fallows, scrub, old stone quarries, settlements, roads, plantations, & commercial development.



*Figure 3 Project Area Landscape and Features*

Many erosional features like gullies, headword erosion, steep gorges are seen along with representative dry deciduous and scrub vegetation. In areas less dominated by humans, like scrub, gullies, a mosaic of rocky outcrop with small puddles, thorny shrub clusters & coppiced trees is seen.

Grazing by cattle, sheep & goat is prevalent in all areas, also plantation of various trees like Eucalyptus, Mango is seen intermittently. Old stone quarries for laterite stone are seen throughout the landscape in the project area.

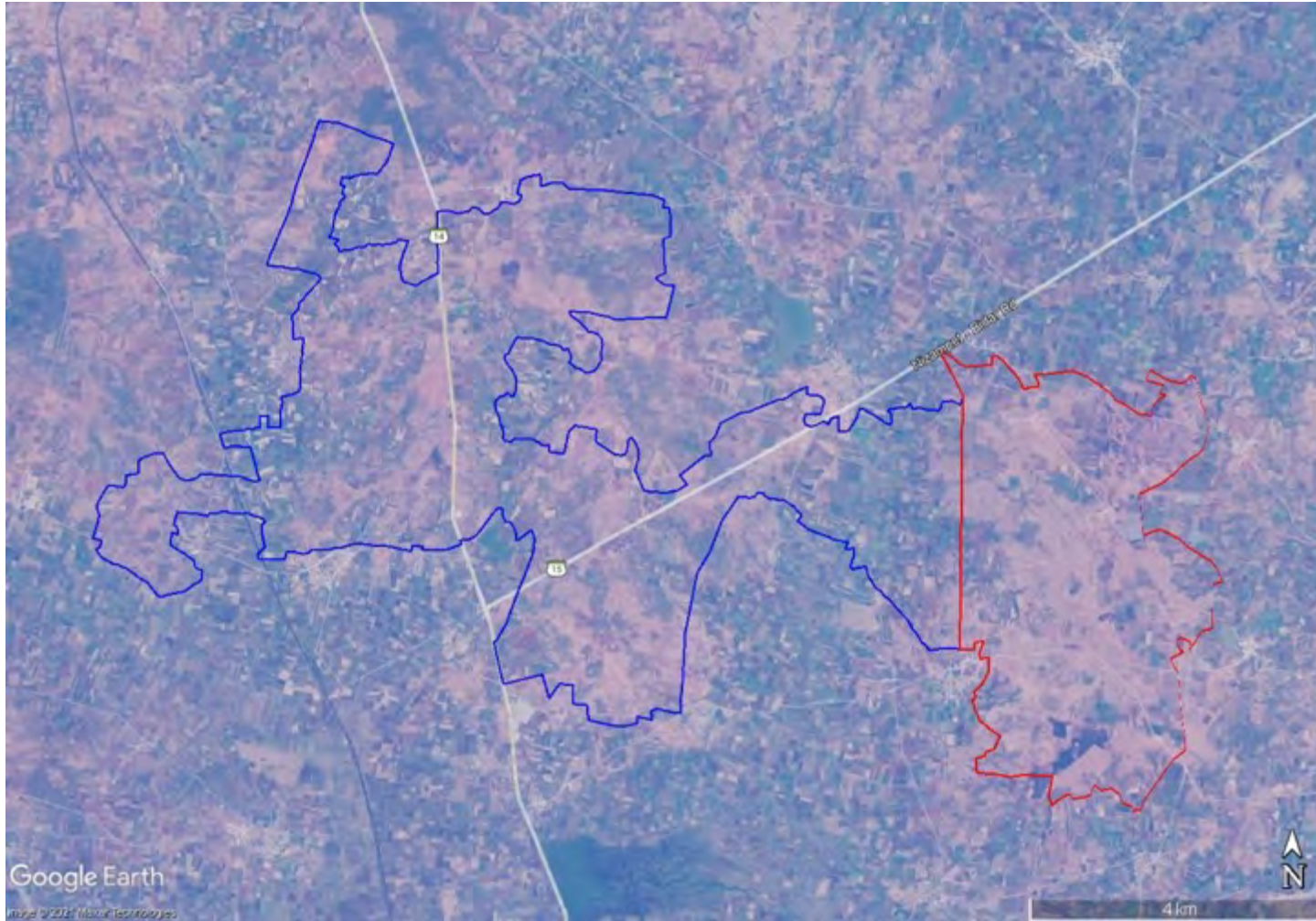
### 3. Methodology

The first site visit focused on overall familiarization of the project area, with a focus on the priority Phase I of the NIMZ. Based on the pre-identified natural scrub areas in the project area (Figure 6), surveys were carried out in all the 15 natural scrub areas to study landscape, topography, drainage patterns, soil and ground textures, identify floral species and faunal (terrestrial and avian) species presence. Pictures and videos were recorded of significant observations in these areas.

These 15 natural scrub areas were mapped against the green spaces designated in the Master Plan of NIMZ (see Figure 7) to identify suitability based on landscape, terrain and stormwater drainage patterns so that the planned green areas could be confirmed, and any changes could be proposed. Accordingly, the proposed green areas are included in this report and will be further detailed / strengthened based on further analysis.

During the further analysis, a second site visit is proposed in September first week, to understand the post monsoon status of the project area as regards green areas, vegetation cover, species mix and faunal presence.

Meanwhile desk-study analysis of the gathered information will be continued particularly in relation to the Master Plan revisions required based on the green area analysis.



*Figure 4 NIMZ Project Boundary for review of Green Areas (red demarcated area indicates Phase I)*

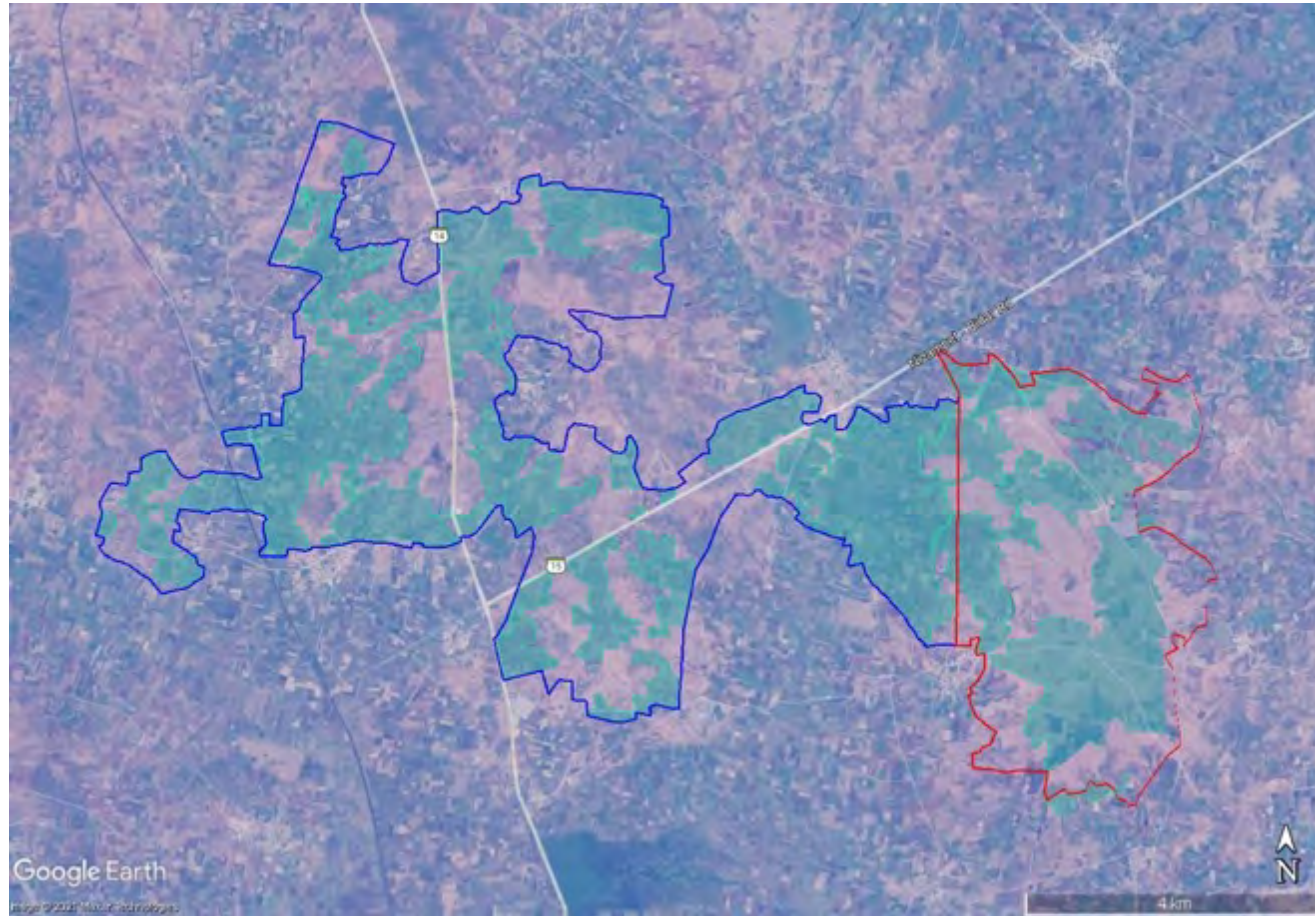
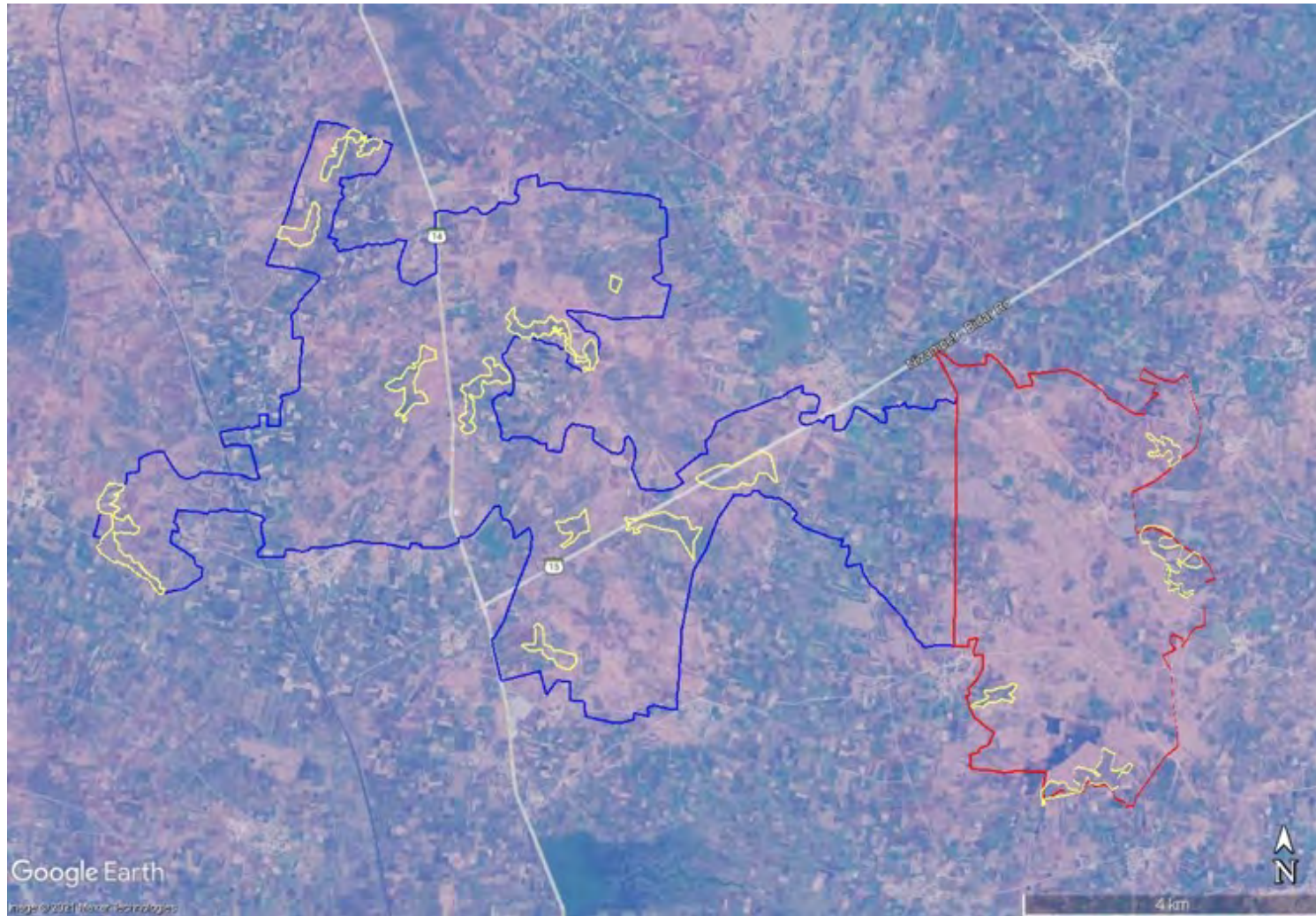


Figure 5 Area under Agriculture (shown in green) in the Project area



*Figure 6 Natural Vegetated Scrub Areas observed during the first visit*

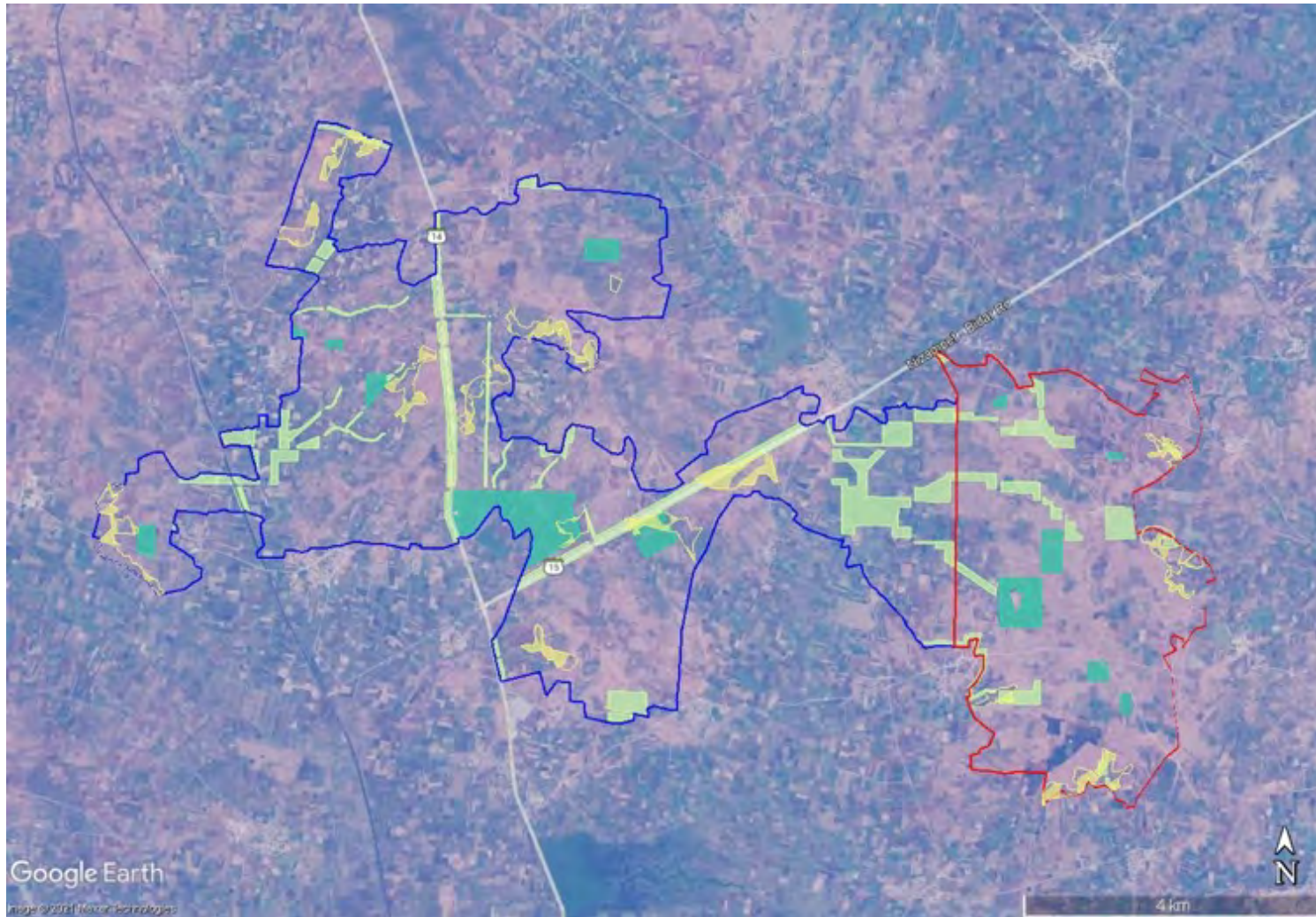


Figure 7 Overlay of Natural Scrub and Designated Green Areas (from Master Plan)

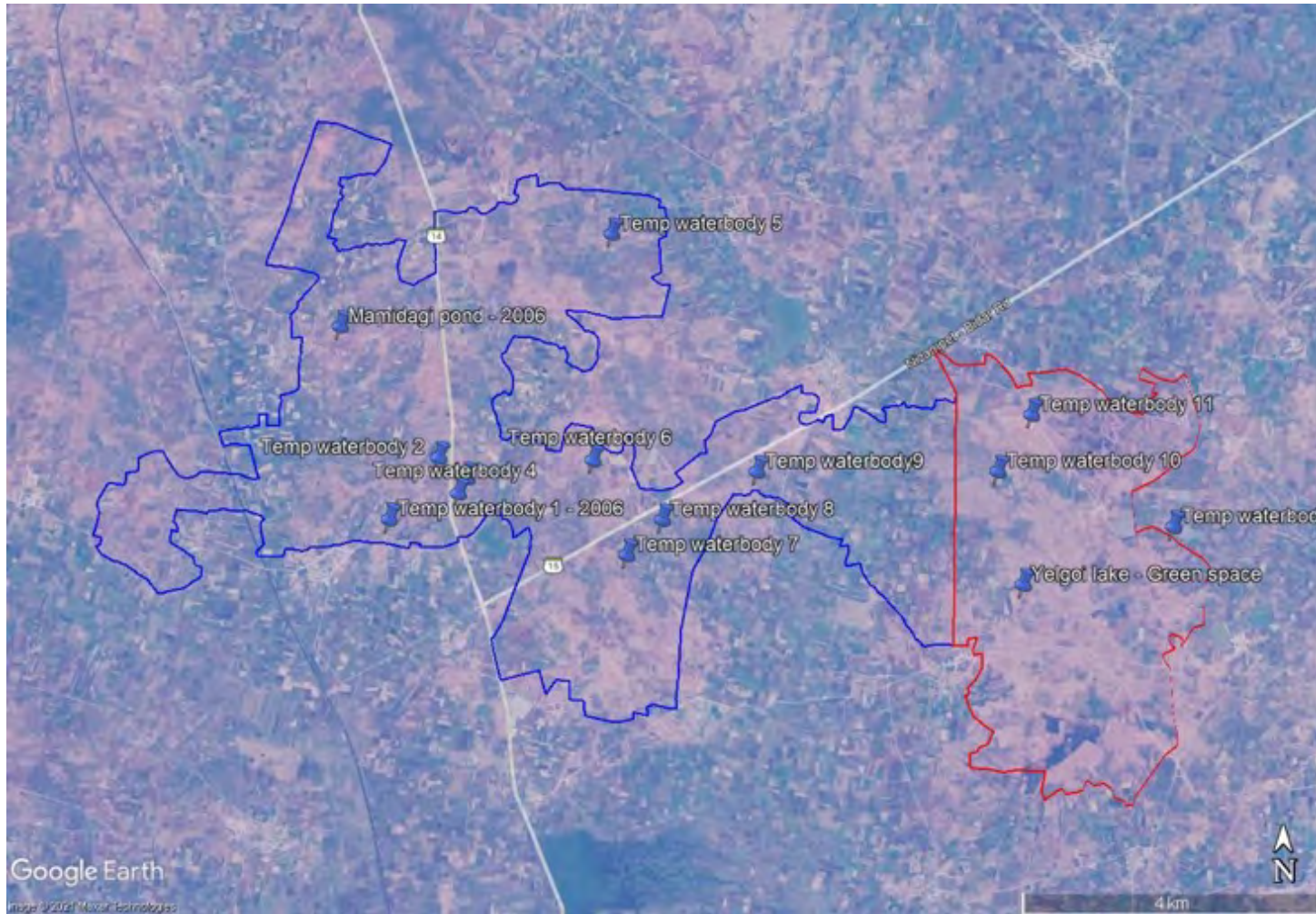


Figure 8 Water bodies observed in the Project Area

During the visit all necessary information related to land classes, biodiversity, scrub areas was collected using line transect along with visit to three RF areas.

All the information and data collected during visit was analysed post visit and compiled in this interim report.

- Overview of data provided by L&TIE
- Broad eco-survey for the entire area under NIMZ for land classes and associated biodiversity in one season
- Data compilation & processing post visit
- Review of designated green areas in master plan
- Suggestions for modification in green areas (attached image showing few priority areas which can be added in report), which was based on,
  - survey, analysis and understanding of the site in one visit
  - data provided by L&TIE
  - time constraints laid by client

We proposed following steps henceforth,

1. **Finalization of Green areas** : Based on the changes suggested to green areas in master plan or alternative areas suggested, L&TIE team to review & finalise the Green areas.
2. **Visit to assess finalized green areas** : Once the areas are finalized, a visit will be planned to assess those specific areas. Proposed visit dates are in third / fourth week of August
3. **Heritage trees** : In the same visit, heritage tree assessment will be done
4. **Analysis of visit data**
5. **Draft GCMP**
6. **Detailed planning of Green areas**
7. **Final GCMP**

## 4. Biodiversity Analysis of the Project Area

As per the present scope of work, detailed survey of biodiversity is not included in the study, but the biodiversity that was observed while assessing greenery development areas has been recorded and will be continued during the second site visit as well. The detailed data related to biodiversity is being provided by the L&TIE team and is being used for further analysis.

As the mentioned under Section 3, certain natural scrub patches were identified during desk research for assessment and were specifically visited to record biodiversity and other land conditions. While recording, native & non-native plants, weeds, plantations, horticulture, etc was categorically mentioned to understand entire array of floral – faunal species.

During the visit, about 150 floral species & 65 faunal species, mainly mammals, birds, & butterflies were identified, spread over various habitats (refer to Annexure 1: Existing Biodiversity in the Project

Area, for the detailed list). Majority of the native biodiversity was recorded in areas that haven't been cultivated and have been treated as wastelands by local community.



Regenerating scrub areas on sloping portions of the land



Biodiversity in scrub areas

The biodiversity found all over the land is typical representative of semi-arid landscape. Following Map 6 shows typical scrub areas visited by the team and some specific biodiversity observed there.



Figure 9 Natural scrub areas with representative biodiversity observed during Site visit

After analysing the biodiversity recorded during the visit and comparing it with available data, few contradictions / discrepancies were observed that can be cleared by communicating with earlier experts. It was found that this region is not a native range for *Saraca asoca* but could have been recorded being planted somewhere. So, this species is not considered in the Rare or Endangered or Endemic or Threatened (REET) species list for CMP.

Considering a drastic land use change from rural-agricultural setup to Industrial area, following approach is proposed for CGMP:

1. Keep large tracks of landscape mosaic that will support entire array of biodiversity, as green areas (these will be proposed in detail in this study)
2. Set specific strategies for REET species in 'Restoration-plantation plan' for Green areas. Out of the species recorded in this survey as well as referring earlier data of EIA report, presently we are focusing on following species as REET: *Chlorophytum borivilianum*, *Chloroxylon swietenia*, *Santalum album*, *Decalepis hamiltonii*, & Blackbuck. This list will be further verified and confirmed during the subsequent visit and updated during future planning work.

Another element of the biodiversity study is to record & analyze the 'Heritage trees' in the project area.

While a formal definition of **Heritage Trees** is not available, a reasonably useful definition can be used from Heritage Trees of Urban India, Importance and their Protection, Seema Mundoli and Harini Nagendra, Aziz Premji University, September 2020.

*“A **notable specimen** because of its **size, form, shape, beauty, age, colour, rarity, genetic constitution, or other distinctive features**; a living relic that displays evidence of **cultural modification** by native or non-native people, including strips of bark or knot-free wood removed, test hole cut to determine soundness, furrows cut to collect pitch or sap, or blazes to mark a trail; a **prominent community landmark**; a specimen **associated with a historic person, place, event or period**; a representative of a crop grown by ancestors and their successors that is **at risk of disappearing from cultivation**; a tree associated with **local folklore, myths, legends or traditions**; a specimen **identified by members of a community as deserving heritage recognition.**”*

Accordingly, we have adopted a broad approach of considering the following criteria for identifying heritage trees:

1. Approximate age of large trees seen on land - this will be based on our experience and/or feedback from local people. Trees that have age above 50 can be regarded as Heritage trees.
2. Girth & canopy / crown size for selection criteria will be decided once enough data is gathered
3. Rarity, Species type, whether Native to the area (although this is not a necessity as some of the older heritage trees can be linked to historical figures and events)
4. Ecological as well as ethnobotanical function / value to note its association with local fauna (wildlife) and usefulness to people (local community), associated with a sacred grove, a landmark in the area
5. Religious value based on specific interviews with local community and if they have any associations / religious sentiments attached to the tree

During the first visit, a few Heritage Trees were observed and recorded, with the following details,

Heritage Tree species (Nos.)	Girth (m)	Canopy spread (m)	GPS Coordinates	
Neem (1)	1.75	10	17.7686220°	077.6510994°
Tamarind (1)	1	6	17.7675472°	077.6513836°
Mango (1)	2.5	6	17.8102322°	077.5768633°



*Figure 10 Large Neem tree observed on site*

During the next detailed survey all the potential heritage trees will be identified and recorded along with the relevant details based on a selection criterion for Heritage Trees.

Trees will be recorded and analyzed with following attributes and a picture,

1. Species name
2. Native / Non-native
3. GBH (Girth at chest height) in m
4. Canopy spread in m
5. Ecological value
6. Ethnobotanical use
7. Religious / any other association with people
8. GPS location
9. Location with respect to the proposed Master plan
10. Remarks and analysis

Once this data is gathered, each attribute will be analysed to arrive at a final listing with the relevant details.

## 5. Proposed Green Areas in the Master Plan

L&TIE have already allocated Green areas and classified them as,

1. Green belt: A plantation buffer of 15 m all along the boundary and as road avenues
2. Green buffer: An area as buffer for streams, buffers to settlements and some green areas

### 3. Green spaces: Areas as recreational spaces, open spaces

Based on our study rationale, the entire area was reviewed using google maps and potential natural scrub areas for basic eco-survey were marked as shown in the Figure 6. These areas were visited and biodiversity along with strata of the area was recorded and photographed during the visit.

During the analysis of designated Green areas in master plan, following points were noted,

1. L&TIE team have preserved streams, their buffers, waterbodies, etc in master plan as greenery and some recreational spaces for the dwellings of the project.
2. After understanding the ground conditions, it was observed that, the steeper sections of the landscape hold better potential for conservation while are not suitable for development. These areas have representative biodiversity of the region.
3. Designated green areas in current master plan have some areas spread over flat land, which are more suitable for industrial areas. While it does not consider preservation of steep sloping areas. So after reviewing the proposed plan it is proposed to include steep sloping areas in greenery plan than some of the spaces that are present on the flat portion.

It was observed during the visit that few areas, if modified as per existing ground conditions (based on slope, character of vegetation, stream lines, occurrence of species) can benefit biodiversity in a positive way. Also, keeping less larger areas than many small works better for viable populations.

An example showing proposed green area and designated green area as per proposed Master Plan is provided below. Old designated (MP) areas are marked in yellow, while all shades of green are new green areas after analysing the site in the first visit (one season) & review of the master plan.

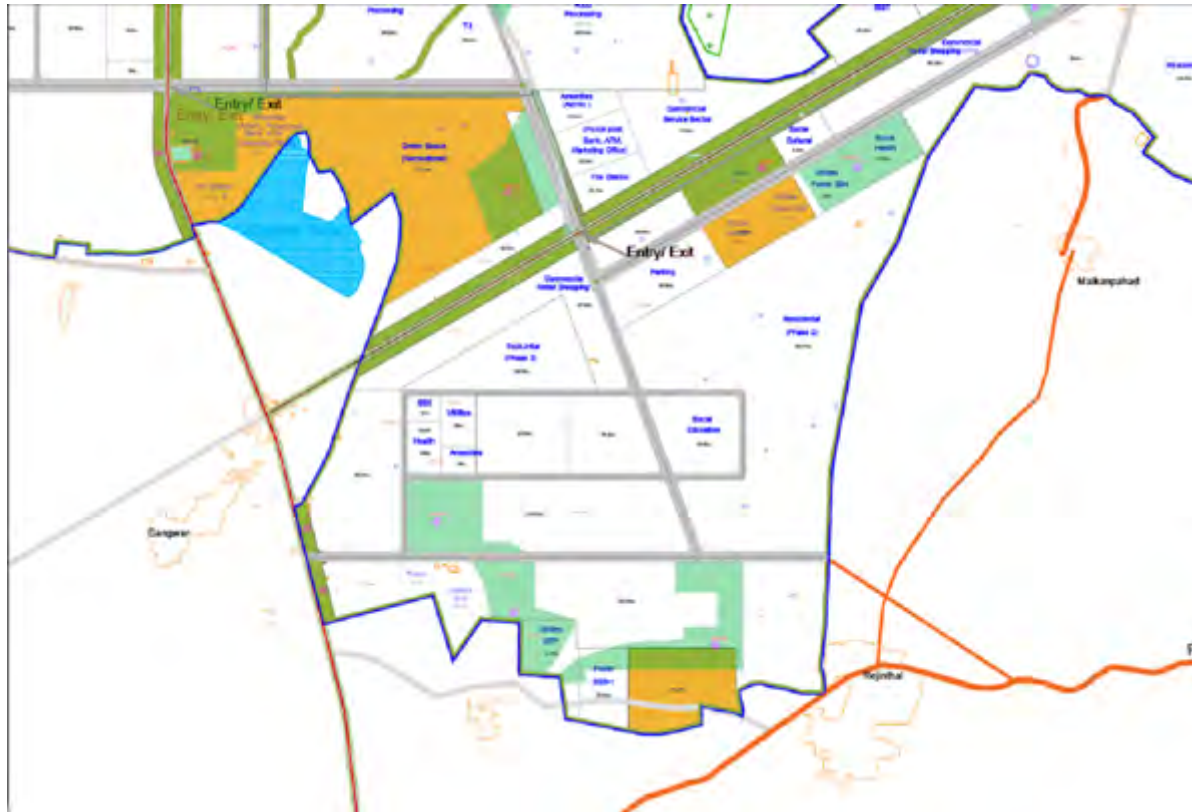


Figure 11 Closeup of the Sample Green Area modification in the Master Plan

The 'Green Areas' are modified based on the following approach and are shown in attached Annexure 3: Drawings / Maps (Proposed Green Areas).

1. **Steep sloping areas at the end of lateritic cap:** These areas are unsuitable for development while holding on to the remanent biodiversity of the area. If ill handled they could be possible sources of soil erosion. Some are small areas while some are continuous belts. All have been marked on contour plan using available contour data as well as with the help of google earth. Advantage of retaining these as green areas is reduction in soil erosion risk, use of non-developable areas in a meaningful way, in-situ preservation of existing native biodiversity.
2. **All streams with 5 m buffer on either side:** Protected streams in developed areas are important as habitats, corridors, and flood control.
3. **All open wells with a buffer of 5 m:** Preservation and well treated ground water sources will be important in future as sustainable water source
4. **Small water tanks with 5 m buffer:** During analysis it was observed that there are many temporary water harvesting structures used for various purposes. Some of them are visible on Google and marked in contour plan. They can be preserved if possible.

The plan also includes area with old stone quarries clustered together, some of these features have an aesthetic appeal and can be preserved and planned to have some recreational areas.



Sloping areas at end of laterite cap



Streams towards sloping areas



Streams



Natural vegetation in gullies

*Figure 12 Proposed Green Areas (Sample)*

## 6. Proposed Treatment for Green Areas

This section discusses about the proposed treatment for Green areas.

During first visit, composition of areas was noted which has patches of rocky outcrop, loose material with small stone fragments, soil, existing vegetation, gullies.



Rocky outcrop of laterite in scrub areas



Scrub & thorn vegetation



Mix of evergreen & deciduous native species



Micro habitats as refuge to uncommon birds – The Eurasian Thick-knee

*Figure 13 Treatment of Green Areas (Proposed as illustration)*

All these land features within a green area need to be treated differently to form a mosaic of habitats supporting variety of life forms.

Proposed treatment and respective plant list for various uses:

### Treatment to Green areas:

Green area have various uses as well as composition. For example, the area around Yelgoi lake with lake buffer, rocky outcrops, and soil area. So, the treatment proposed is,

1. Riparian Buffer around lake to be planted densely with riparian species at distance of 15 ft
2. Rocky outcrop to be preserved as it is and planted intermittently with clusters of thorny plants & shrubs and Ficus as key species
3. Areas with soil to be planted closely with typical dry deciduous vegetation, at distance of 20 ft apart

4. Area under present agriculture and near to road is treated as a recreational green, with sparse shade giving trees where other activities like seating, small play areas, garden areas, pathways, etc. can be planned eventually. (Present scope has native tree plantations only so detailed garden designs are not planned)

Refer to attached plan in Annexure 3: Drawings / Maps

#### **Road Avenue Planning:**

Roads are handled in 2 ways; one is proposing changes to typical sections and other sample of 500 m road avenue plantations.

In road sections, it is proposed to include a bio-swale to tackle storm water instead of an enclosed storm water chamber. This will allow more green areas along road, & increase rainwater percolation.

Example of 'changes to typical road section' (Attached separately)



For roadside avenues, a mix of medium sized tree species and large trees is selected based on availability of spaces. Attached plan shows a typical sample of road with planting details.

Refer to Annexure 2: Proposed Plantation Species Lists by Green Area for various lists for Proposed Plantations

## **7. Contents of Proposed Final GCMP Report**

1. Executive Summary
2. Scope of Work: Detailing exact scope of work for the greenery conservation planning
3. Introduction: General introduction for the report
4. Landscape & Regional Context: Brief introduction about region and landscape under consideration along with unique features
5. Analysis of Biodiversity with REET species note: Details of biodiversity recorded, referenced, and note on REET species under consideration for GCMP
6. Map & Details of areas under consideration for GCMP
7. GCMP: Relocation, Restoration & Plantation Plan for 'Green areas'

8. Suggestions for individual industrial plot development: This section would help in defining how the industries can handle their open spaces, from the greenery conservation perspective and using the right species that can be preferred for plantation.
9. Annexures: Biodiversity lists, Attachments of plans for green areas and Roadside plantations, Refer Annexure 4: Strategy for Restoration and Conservation of Green Areas in NIMZ

## 8. Next Steps

As mentioned earlier, the next steps would involve continued detailed analysis of the Project area for studying and finalizing green area designation vis-à-vis proposed master plan and a site visit will be planned (for about 10 days) to study the focus green areas for further detailing of species and biodiversity to propose specific area plantations and species mix, including retaining of natural drainage corridors and conservation.

Based on the revised final master plan for NIMZ received from L&TIE<sup>1</sup> the following two aspects are being worked upon by the EM-Oikos team:

- Detailed planning of Green Areas
- Identification of Conservation and Management strategies for key floral species as per the TOR / guidelines.

In parallel, a guidance for individual industrial plot owners in the NIMZ will be developed for planning green areas within their plots so that the overall conservation plan proposed in our study for the entire project area is sustained and continued.

---

<sup>1</sup> [2027.6 acres of Green areas including soil-moisture restoration plan as required, and tree plantation planning (Ref plan - 2021.08.17-RA-NIMZ Overall Master Plan - sent by L&TIE team on 25.8.21)]

## 9. Annexures

### Annexure 1: Existing Biodiversity in the Project Area

A mapping of the observed lists of flora and fauna below with those identified in the baseline survey of EIA will also be presented in the subsequent report.

#### Flora list

Non-native plants are marked in red

Sr. No	Scientific name	Habit	Family	IUCN status
1.	<i>Abrus precatorius</i>	Cl	Fabaceae	
2.	<i>Abutilon indicum</i>	S	Malvaceae	
3.	<i>Acacia chundra</i>	T	Mimosaceae	
4.	<i>Acacia leucophloea</i>	T	Mimosaceae	Least Concern
5.	<i>Acacia mangium</i>	T	Fabaceae	
6.	<i>Acacia nilotica</i>	T	Mimosaceae	Least Concern
7.	<i>Acacia torta</i>	CS	Mimosaceae	
8.	<i>Acanthospermum hispidum</i>	H	Asteraceae	
9.	<i>Achyranthes aspera</i>	H	Amaranthaceae	
10.	<i>Actinopteris radiata</i>	F	Pteridaceae	
11.	<i>Ailanthus excelsa</i>	T	Simaroubaceae	
12.	<i>Alangium salvifolium</i>	T	Alangiaceae	
13.	<i>Albizia lebbeck</i>	T	Mimosaceae	
14.	<i>Alternanthera sp.</i>	H	Euphorbiaceae	
15.	<i>Annona squamosa</i>	T	Annonaceae	
16.	<i>Anogeissus latifolia</i>	T	Combrataceae	
17.	<i>Argemone mexicana</i>	H	Papaveraceae	
18.	<i>Argyrea sp.</i>	Cl	Convolvulaceae	
19.	<i>Asparagus racemosus</i>	Cl	Asparagaceae	
20.	<i>Aspidopterys cordata</i>	Cl	Malpighiaceae	
21.	<i>Azadirachta indica</i>	T	Meliaceae	Least Concern
22.	<i>Bauhinia racemosa</i>	T	Caesalpiniaceae	
23.	<i>Boswellia serrata</i>	T	Burseraceae	
24.	<i>Buchanania cochinchinensis</i>	T	Anacardiaceae	
25.	<i>Butea monosperma</i>	T	Fabaceae	
26.	<i>Calotropis gigantea</i>	S	Apocynaceae	
27.	<i>Canthium coromandelicum</i>	S	Rubiaceae	
28.	<i>Capparis zeylanica</i>	S	Capparaceae	
29.	<i>Caralluma fimbriata</i>	H	Apocynaceae	
30.	<i>Casearia tomentosa</i>	S	Flacourtiaceae	
31.	<i>Cassia auriculata</i>	S	Caesalpiniaceae	
32.	<i>Cassia fistula</i>	T	Caesalpiniaceae	Least Concern

33.	<i>Cassia pumila</i>	H	Caesalpiniaceae	
34.	<i>Cassia tora</i>	H	Fabaceae	
35.	<i>Cassia uniflora</i>	H	Fabaceae	
36.	<i>Catharanthus pusillus</i>	H	Apocynaceae	
37.	<i>Catunaregam spinosa</i>	T	Rubiaceae	
38.	<i>Celastrus paniculatus</i>	CS	Celastraceae	
39.	<i>Chlorophytum borivillianum</i>	H	Liliaceae	Critically Endangered (Id to be confirmed in next visit)
40.	<i>Chloroxylon swietenia</i>	T	Meliaceae	Vulnerable
41.	<i>Chryptolepis buchananni</i>	Cl	Asclepiadaceae	
42.	<i>Cissus sp.</i>	Cl	Vitaceae	
43.	<i>Cissus woodrowii</i>	S	Vitaceae	
44.	<i>Cocculus hirsutus</i>	Cl	Menispermaceae	
45.	<i>Coldenia procumbens</i>	H	Boraginaceae	Least Concern
46.	<i>Combretum sp.</i>	Cl	Combretaceae	
47.	<i>Commelina forskalii</i>	H	Commelinaceae	
48.	<i>Cuscuta campestris</i>	Cl	Convolvulaceae	
49.	<i>Cyanotis sp.</i>	H	Commelinaceae	Least Concern
50.	<i>Cymbopogon martinii</i>	G	Poaceae	
51.	<i>Cynodon dactylon</i>	G	Poaceae	
52.	<i>Dalbergia lanceolaria</i>	T	Fabaceae	
53.	<i>Dalbergia sissoo</i>	T	Fabaceae	
54.	<i>Dicanthium sp.</i>	G	Poaceae	
55.	<i>Dichrostachys conerea</i>	S	Mimosaceae	
56.	<i>Diospyros melanoxylon</i>	T	Ebenaceae	
57.	<i>Dipteracanthus prostratus</i>	H	Acanthaceae	
58.	<i>Dodonaea viscosa</i>	S	Sapindaceae	Least Concern
59.	<i>Dolichandrone falcata</i>	T	Bignoniaceae	
60.	<i>Dregea volubilis</i>	Cl	Asclepiadaceae	
61.	<i>Ehretia microphylla</i>	H	Boraginaceae	
62.	<i>Eucalyptus sp.</i>	T	Myrtaceae	
63.	<i>Euphorbia sp.</i>	H	Euphorbiaceae	
64.	<i>Evolvulus alsinoides</i>	H	Convolvulaceae	
65.	<i>Ficus religiosa</i>	T	Moraceae	
66.	<i>Ficus benghalensis</i>	T	Moraceae	
67.	<i>Ficus hispida</i>	T	Moraceae	Least Concern
68.	<i>Ficus racemosa</i>	T	Moraceae	Least Concern
69.	<i>Flacourtia indica</i>	T	Flacourtiaceae	Least Concern
70.	<i>Flueggea leucopyrus</i>	S	Phyllanthaceae	
71.	<i>Gardenia resinifera</i>	T	Rubiaceae	
72.	<i>Gardenia turgida</i>	T	Rubiaceae	

73.	<i>Gloriosa superba</i>	Cl	Liliaceae	Least Concern
74.	<i>Gomphrena serrata</i>	H	Amaranthaceae	
75.	<i>Grewia flavescens</i>	S	Tiliaceae	Least Concern
76.	<i>Grewia hirsuta</i>	S	Tiliaceae	
77.	<i>Grewia tiliifolia</i>	T	Tiliaceae	
78.	<i>Gymnema sylvestre</i>	Cl	Asclepiadaceae	
79.	<i>Hardwickia binata</i>	T	Caesalpiniaceae	Least Concern
80.	<i>Hemidesmus indicus</i>	Cl	Apocynaceae	
81.	<i>Holarrhena pubescens</i>	S	Apocynaceae	Least Concern
82.	<i>Holoptelea integrifolia</i>	T	Ulmaceae	
83.	<i>Hybanthus enneaspermus</i>	H	Violaceae	
84.	<i>Hyptis suaveolens</i>	H	Lamiaceae	
85.	<i>Indigofera linifolia</i>	H	Fabaceae	Least Concern
86.	<i>Indigofera linnaei</i>	H	Fabaceae	
87.	<i>Ipomoea carnea</i>	S	Convolvulaceae	
88.	<i>Ipomoea sp.</i>	Cl	Convolvulaceae	
89.	<i>Ixora parviflora</i>	T	Rubiaceae	
90.	<i>Jasminum sp.</i>	Cl	Oleaceae	
91.	<i>Lannea coromandelica</i>	T	Anacardiaceae	
92.	<i>Lantana camara</i>	S	Verbenaceae	
93.	<i>Lepidagathis sp.</i>	H	Acanthaceae	
94.	<i>Leucaena leucocephala</i>	T	Mimosaceae	
95.	<i>Leucas stricta</i>	H	Lamiaceae	
96.	<i>Madhuca indica</i>	T	Sapotaceae	
97.	<i>Mangifera indica</i>	T	Anacardiaceae	Data Deficient
98.	<i>Maytenus senegalensis</i>	S	Celastraceae	
99.	<i>Melanocentris jacquemontii</i>	G	Poaceae	
100.	<i>Merremia tridentata</i>	Cl	Convolvulaceae	
101.	<i>Mimosa hamata</i>	S	Mimosaceae	
102.	<i>Morinda pubescens</i>	T	Rubiaceae	
103.	<i>Murraya koenigii</i>	S	Rutaceae	
104.	<i>Ocimum gratissimum</i>	H	Lamiaceae	
105.	<i>Ocimum sp.</i>	H	Lamiaceae	
106.	<i>Oldenlandia herbacea</i>	H	Rubiaceae	
107.	<i>Oldenlandia herbacea</i>	H	Rubiaceae	
108.	<i>Opuntia elatior</i>	S	Cactaceae	
109.	<i>Orthosiphon aristatus</i>	H	Lamiaceae	
110.	<i>Parthenium hysterophorus</i>	H	Asteraceae	
111.	<i>Pavonia zeylanica</i>	H	Malvaceae	
112.	<i>Phaseolus sp.</i>	H	Fabaceae	
113.	<i>Phyllanthus fraternus</i>	H	Phyllanthaceae	
114.	<i>Phyllanthus reticulatus</i>	S	Phyllanthaceae	

115.	<i>Polyalthia cerasoides</i>	T	Annonaceae	
116.	<i>Polygonum plebeium</i>	H	Polygonaceae	Least Concern
117.	<i>Pongamia pinnata</i>	T	Fabaceae	Least Concern
118.	<i>Prosopis juliflora</i>	S	Fabaceae	
119.	<i>Rauvolfia tetraphylla</i>	S	Apocynaceae	
120.	<i>Rungia sp.</i>	H	Acanthaceae	
121.	<i>Santalum album</i>	T	Santalaceae	Vulnerable
122.	<i>Schleichera oleosa</i>	T	Sapindaceae	Least Concern
123.	<i>Scilla hyacinthina</i>	H	Liliaceae	
124.	<i>Setaria sp.</i>	G	Poaceae	
125.	<i>Sida acuta</i>	H	Malvaceae	
126.	<i>Soymida febrifuga</i>	T	Meliaceae	
127.	<i>Spermacoce articularis</i>	H	Rubiaceae	
128.	<i>Spermacoce pusilla</i>	H	Rubiaceae	
129.	<i>Stereospermum colais</i>	T	Bignoniaceae	
130.	<i>Striga densiflora</i>	H	Scrophulariaceae	
131.	<i>Striga lutea</i>	H	Scrophulariaceae	
132.	<i>Strychnos nux-vomica</i>	T	Loganiaceae	
133.	<i>Syzygium cumini</i>	T	Myrtaceae	Least Concern
134.	<i>Tamarindus indica</i>	T	Caesalpiniaceae	
135.	<i>Tecoma stans</i>	S	Bignoniaceae	Least Concern
136.	<i>Tectona grandis</i>	T	Verbenaceae	
137.	<i>Tephrosia purpurea</i>	H	Fabaceae	
138.	<i>Tinospora cordifolia</i>	Cl	Menispermaceae	
139.	<i>Trichodesma sp.</i>	H	Boraginaceae	
140.	<i>Tridax procumbens</i>	H	Asteraceae	
141.	<i>Triumfetta sp.</i>	H	Tiliaceae	
142.	<i>Tylophora indica</i>	Cl	Asclepiadaceae	
143.	<i>Urochloa sp.</i>	G	Poaceae	
144.	<i>Vitex negundo</i>	S	Verbenaceae	Least Concern
145.	<i>Wrightia arborea</i>	T	Apocynaceae	
146.	<i>Wrightia tinctoria</i>	T	Apocynaceae	
147.	<i>Ziziphus caracutta</i>	T	Rhamnaceae	
148.	<i>Ziziphus mauritiana</i>	T	Rhamnaceae	Least Concern
149.	<i>Ziziphus oenoplia</i>	S	Rhamnaceae	

Note : No plant from above list is enlisted in 'ENVIS - Red listed Plants of India'

## REET flora species under consideration



*Santalum album*



*Chlorophytum borivilianum*



*Chloroxylon swietenia*



*Decalepis hamiltonii*

## Fauna Lists:

### Mammals:

Sr. No.	Common English Name	Scientific Name	WPA status	IUCN Status
1	Black-naped hare	<i>Lepus nigricollis</i>	Sch IV	LC
2	Blackbuck	<i>Antelope cervicapra</i>	Sch I (Part I)	LC
3	Common Palm Civet	<i>Paradoxurus hemaphroditus</i>	Sch II (Part I)	LC
4	Indian Crested Porcupine	<i>Hystrix indica</i>	Sch IV	LC
5	Indian wild pig	<i>Sus scrofa</i>	Sch III	LC
6	Northern plains langur	<i>Semnopithecus entellus</i>	Sch II (Part I)	LC



Blackbuck

### Birds:

Sr. No.	Common English Name
1	Asian koel
2	Asian sparrow lark
3	Baya weaver
4	Black drongo
5	Black-shouldered kite
6	Chestnut-bellied sandgrouse
7	Common babbler
8	Common hawk cuckoo
9	Common hoopoe
10	Common iora
11	Common myna
12	Eurasian collared dove

13	Eurasian Thick-knee
14	Golden oriole
15	Greater coucal
16	Green bee-eater
17	Grey francolin
18	Grey nightjar
19	House sparrow
20	Indian peafowl
21	Indian robin
22	Jungle crow
23	Laughing dove
24	Painted francolin
25	Pied bushchat
26	Plain prinia
27	Purple-rumped sunbird
28	Rain quail
29	Red-vented bulbul
30	Red-wattled lapwing
31	River turn
32	Rock pigeon
33	Rufous treepie
34	Rufous-tailed lark
35	Silver-billed munia
36	Sirkeer malkoha
37	Small minivet
38	Spotted dove
39	Spotted owlet
40	Tailor bird
41	Tickell's blue flycatcher
42	White breasted Kingfisher
43	Yellow-wattled lapwing
44	Barn swallow
45	Scaly-breasted munia

### Butterflies:

Sr. No.	Common English Name	Scientific Name
1	Common grass yellow	<i>Eurema hecabe</i>
2	Common lime	<i>Papilio demoleus</i>
3	Plain tiger	<i>Danaus chrysippus</i>

4	Common leopard	<i>Phalanta phalantha</i>
5	Common baron	<i>Euthalia aconthea</i>
6	Lemon pansy	<i>Junonia lemonias</i>
7	Blue pansy	<i>Junonia orithya</i>
8	Striped tiger	<i>Danaus genutia</i>
9	Danaid eggfly	<i>Appias albina</i>
10	Common castor	<i>Ariadne merione</i>
11	Common rose	<i>Pachliopta aristolochiae</i>
12	Common emigrant	<i>Catopsilia pomona</i>

## Annexure 2: Proposed Plantation Species Lists by Green Area

\* These lists are indicative based on work in progress and will be updated as the analysis is completed. Details as to their selection rationale and requirements / care to be taken for conservation will also be detailed.

The guideline on greenery conservation for individual industry plot owners / leases will include these recommendations for them to consider while developing their respective sites.

### Green belt

	Large trees + Bamboo	Medium trees
1.	Bamboo species	<i>Azadirachta indica</i>
2.	<i>Ailanthus excelsa</i>	<i>Buchanania cochinchinensis</i>
3.	<i>Albizia lebbeck</i>	<i>Cassia fistula</i>
4.	<i>Albizia procera</i>	<i>Chloroxylon swietenia</i>
5.	<i>Ficua religiosa</i>	<i>Dalbergia lanceolaria</i>
6.	<i>Ficus benghalensis</i>	<i>Dalbergia latifolia</i>
7.	<i>Holoptelea integrifolia</i>	<i>Erythrina suberosa</i>
8.		<i>Gmelina arborea</i>
9.		<i>Hardwickia binata</i>
10.		<i>Mitragyna parviflora</i>
11.		<i>Syzygium cumini</i>
12.		<i>Tectona grandis</i>
13.		<i>Terminalia arjuna</i>
14.		<i>Terminalia bellirica</i>

### Riparian buffer

Sr. No.	Scientific Name
1.	<i>Alangium salviifolium</i>
2.	<i>Cassia fistula</i>
3.	<i>Crataeva adansonii</i>
4.	<i>Ficus racemosa</i>
5.	<i>Pongamia pinnata</i>
6.	<i>Terminalia arjuna</i>

### Dry deciduous forest vegetation

Sr. No.	Scientific Name
1.	<i>Aegle marmelos</i>
2.	<i>Ailanthus excelsa</i>
3.	<i>Alangium salvifolium</i>
4.	<i>Albizia procera</i>

5.	<i>Anogeissus latifolia</i>
6.	<i>Bauhinia racemosa</i>
7.	<i>Bombax ceiba</i>
8.	<i>Boswellia serrata</i>
9.	<i>Bridelia retusa</i>
10.	<i>Buchanania cochinchinensis</i>
11.	<i>Butea monosperma</i>
12.	<i>Cassia fistula</i>
13.	<i>Cassine glauca</i>
14.	<i>Catunaregam spinosa</i>
15.	<i>Chloroxylon swietenia</i>
16.	<i>Cordia dichotoma</i>
17.	<i>Cordia macleodii</i>
18.	<i>Cordia sinensis</i>
19.	<i>Crataeva adansonii</i>
20.	<i>Dalbergia lanceolaria</i>
21.	<i>Dalbergia latifolia</i>
22.	<i>Diospyros melanoxylon</i>
23.	<i>Dolichandrone falcata</i>
24.	<i>Ehretia laevis</i>
25.	<i>Erythrina suberosa</i>
26.	<i>Flacourtia indica</i>
27.	<i>Gardenia resinifera</i>
28.	<i>Gmelina arborea</i>
29.	<i>Grewia tiliifolia</i>
30.	<i>Heterophragma quadriloculare</i>
31.	<i>Holoptelea integrifolia</i>
32.	<i>Ixora parviflora</i>
33.	<i>Lagerstroemia parviflora</i>
34.	<i>Lannea coromandelica</i>
35.	<i>Madhuca latifolia</i>
36.	<i>Manilkara hexandra</i>
37.	<i>Milusa tomentosa</i>
38.	<i>Mitragyna parvifolia</i>
39.	<i>Morinda pubescens</i>
40.	<i>Ougeinia oojeinensis</i>
41.	<i>Phoenix sylvestris</i>
42.	<i>Prosopis cineraria</i>
43.	<i>Pterocarpus marsupium</i>
44.	<i>Pterocarpus santalinus</i>

45.	<i>Santalum album</i>
46.	<i>Sapindus laurifolius</i>
47.	<i>Schleichera oleosa</i>
48.	<i>Schrebera swietenoides</i>
49.	<i>Semecarpus anacardium</i>
50.	<i>Soymida febrifuga</i>
51.	<i>Sterculia urens</i>
52.	<i>Strychnos nux-vomica</i>
53.	<i>Syzygium cumini</i>
54.	<i>Terminalia bellirica</i>
55.	<i>Terminalia elliptica</i>
56.	<i>Wrightia arborea</i>
57.	<i>Wrightia tinctoria</i>

### Savannah areas

Sr. No.	Scientific Name
	<b>Trees</b>
1.	<i>Acacia catechu</i>
2.	<i>Acacia chundra</i>
3.	<i>Acacia leucophloea</i>
4.	<i>Acacia nilotica</i>
5.	<i>Azadirachta indica</i>
6.	<i>Hardwickia binata</i>
7.	<i>Ziziphus caracutta</i>
8.	<i>Ziziphus mauritiana</i>
	<b>Shrubs</b>
1.	<i>Acacia torta</i>
2.	<i>Canthium coromandelicum</i>
3.	<i>Capparis zeylanica</i>
4.	<i>Casearia tomentosa</i>
5.	<i>Cassia auriculata</i>
6.	<i>Celastrus paniculatus</i>
7.	<i>Dichrostachys cinerea</i>
8.	<i>Mimosa hamata</i>
9.	<i>Ziziphus oenoplia</i>

### Road avenue trees

Sr. No.	Scientific Name

	Large trees	Medium trees
1.	<i>Acacia nilotica</i>	<i>Anogeissus latifolia</i>
2.	<i>Ailanthus excelsa</i>	<i>Azadirachta indica</i>
3.	<i>Albizia lebbek</i>	<i>Buchanania cochinchinensis</i>
4.	<i>Albizia procera</i>	<i>Butea monosperma</i>
5.	<i>Ficua religiosa</i>	<i>Cassia fistula</i>
6.	<i>Ficus benghalensis</i>	<i>Chloroxylon swietenia</i>
7.	<i>Holoptelea integrifolia</i>	<i>Chloroxylon swietenia</i>
8.	<i>Madhuca latifolia</i>	<i>Dalbergia lanceolaria</i>
9.		<i>Dalbergia latifolia</i>
10.		<i>Erythrina suberosa</i>
11.		<i>Gmelina arborea</i>
12.		<i>Hardwickia binata</i>
13.		<i>Mangifera indica</i>
14.		<i>Schleichera oleosa</i>
15.		<i>Syzygium cumini</i>
16.		<i>Tectona grandis</i>

### Recreational areas

Sr No	Scientific Name
1.	<i>Aegle marmelos</i>
2.	<i>Albizia procera</i>
3.	<i>Azadirachta indica</i>
4.	<i>Bombax ceiba</i>
5.	<i>Butea monosperma</i>
6.	<i>Cassia fistula</i>
7.	<i>Dalbergia latifolia</i>
8.	<i>Diospyros melanoxylon</i>
9.	<i>Erythrina suberosa</i>
10.	<i>Ficus benghalensis</i>
11.	<i>Ficus microcarpa</i>
12.	<i>Ficus religiosa</i>
13.	<i>Gardenia resinifera</i>
14.	<i>Gmelina arborea</i>
15.	<i>Harwickia binata</i>
16.	<i>Ixora pavetta</i>
17.	<i>Limonia acidissima</i>
18.	<i>Madhuca indica</i>
19.	<i>Mangifera indica</i>
20.	<i>Mitragyna parviflora</i>

21.	<i>Morinda pubescence</i>
22.	<i>Nyctanthes arbor-tristis</i>
23.	<i>Phoenix sylvestris</i>
24.	<i>Phyllanthus emblica</i>
25.	<i>Pterocarpus santalinus</i>
26.	<i>Spondias pinnata</i>
27.	<i>Syzygium cumini</i>
28.	<i>Tamarindus indica</i>
29.	<i>Tectona grandis</i>
30.	<i>Wrightia tinctoria</i>
31.	<i>Sapindus laurifolius</i>

### **Annexure 3: Drawings / Maps**

1. Proposed Plantation Zones for a Sample Green area (Yelgoi lake)
2. Proposed Conceptual Road Sections with Plantations
3. Proposed Typical Tree Plantation plan for Road Avenue
4. Revised Final Green Area mapped with NIMZ Master Plan (Sept 2021)

The species mix for plantation in these areas will be proposed and finalized in the further studies.

## ***Annexure 4: Strategy for Restoration and Conservation of Green Areas in NIMZ***

Green areas designated in Master plan will be planned as per following strategy for restoration & conservation.

Reference: 2027.6 acres of Green area (Ref plan - 2021.08.17-RA-NIMZ Overall Master Plan - sent by L&TIE team on 25.8.21)

Objectives:

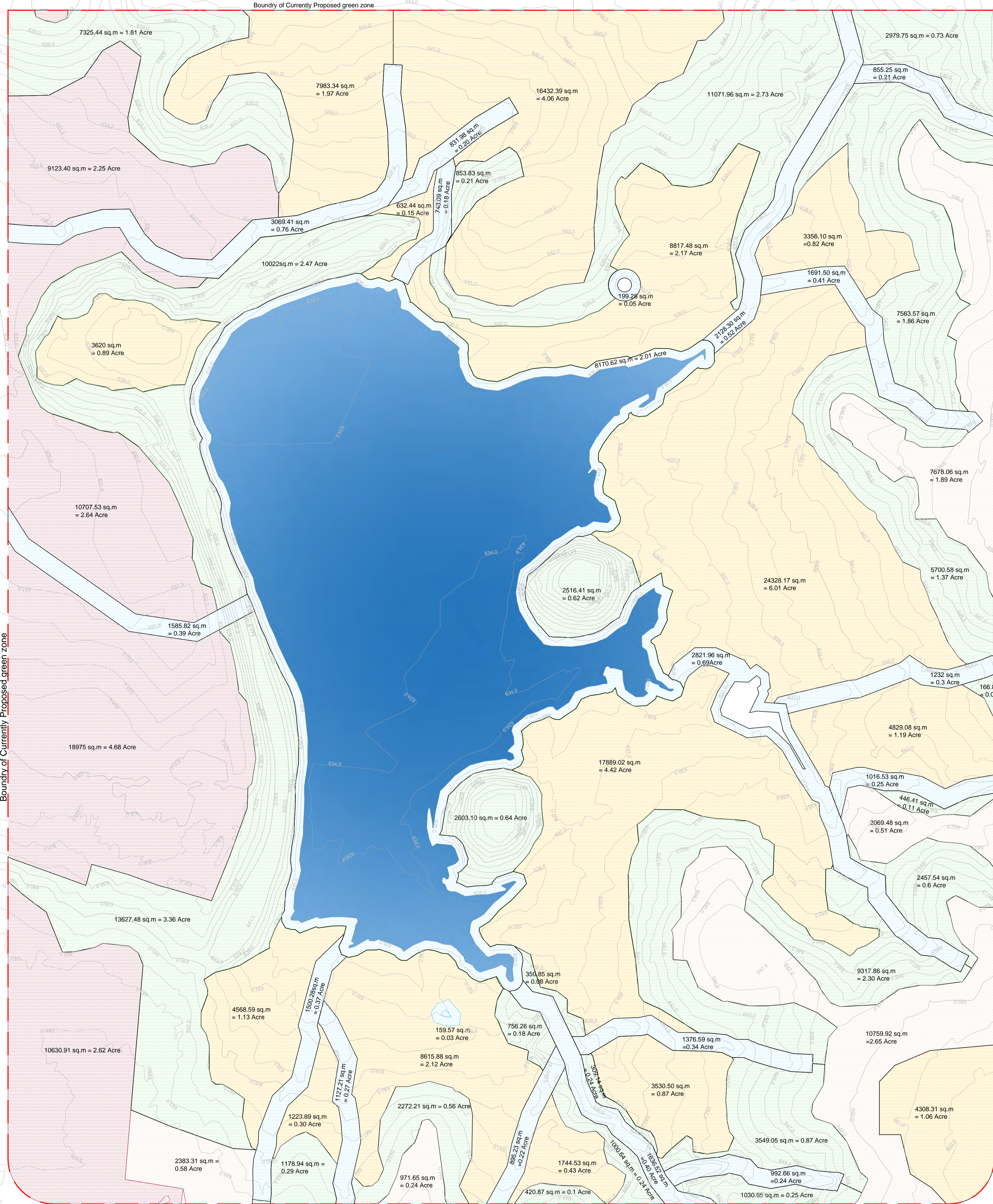
1. To restore soil to a healthy state
2. Protect & restore the natural stream (stormwater) network
3. Conservation of biodiversity (In-situ & Ex-situ)

Proposed Strategies:

1. Soil: Soil is the primary edaphic factor that affects health of the ecosystem, so it is important to restore soil fertility by,
  - a. Mulching & addition of organic matter
  - b. Control on fire, grazing,
  - c. Increase the moisture holding capacity of soil
  - d. Reduction in soil temperature
2. Hydrology: Water is an important resource in tropical areas where monsoon is seasonal, it will be conserved by,
  - a. Protecting the stream network
  - b. Restoration of stream banks with appropriate methods
  - c. Restoring riparian vegetation
3. Biodiversity: Includes all the living forms (flora & fauna), and will be tackled in following ways,
  - a. Protection to identified areas from grazing, fire, cutting, developmental activities, fencing is important here
  - b. Protection to existing vegetation (grass, shrubs, herbs, etc)
  - c. Removal of invasive non-natives in a phased manner

- d. Plantation strategies as per various strata (rocky areas, soil, *Murum*)
- e. Introduction of appropriate native tree plant species for various uses & as per land conditions

# Proposed Plantation Zones



**LEGEND**

Plantation Zone	Area	No. of Trees
Desciduous Forest	20.33 Acre	46659
Riparian Buffer	7.87 Acre	22912
Savannah	27.64 Acre	24106
Recreational Zone	12.21 Acre	to be decided
Rocky Area	5.89 Acre	2565
<b>Total Area</b>	<b>74.94 Acre</b>	<b>96244</b>

DRG NO:

DATE: 01-08-2021

DEALT BY:  
Ar. Hrushikesh



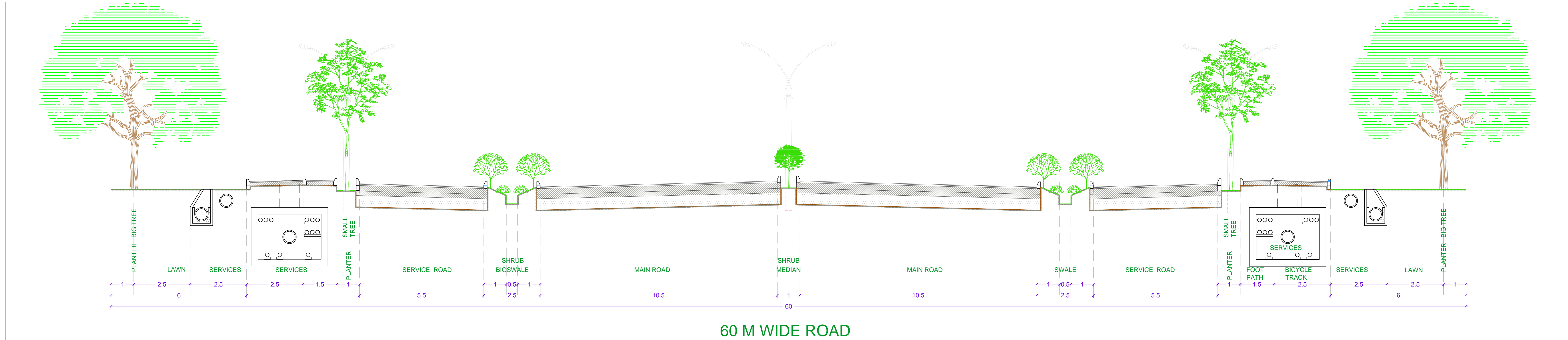
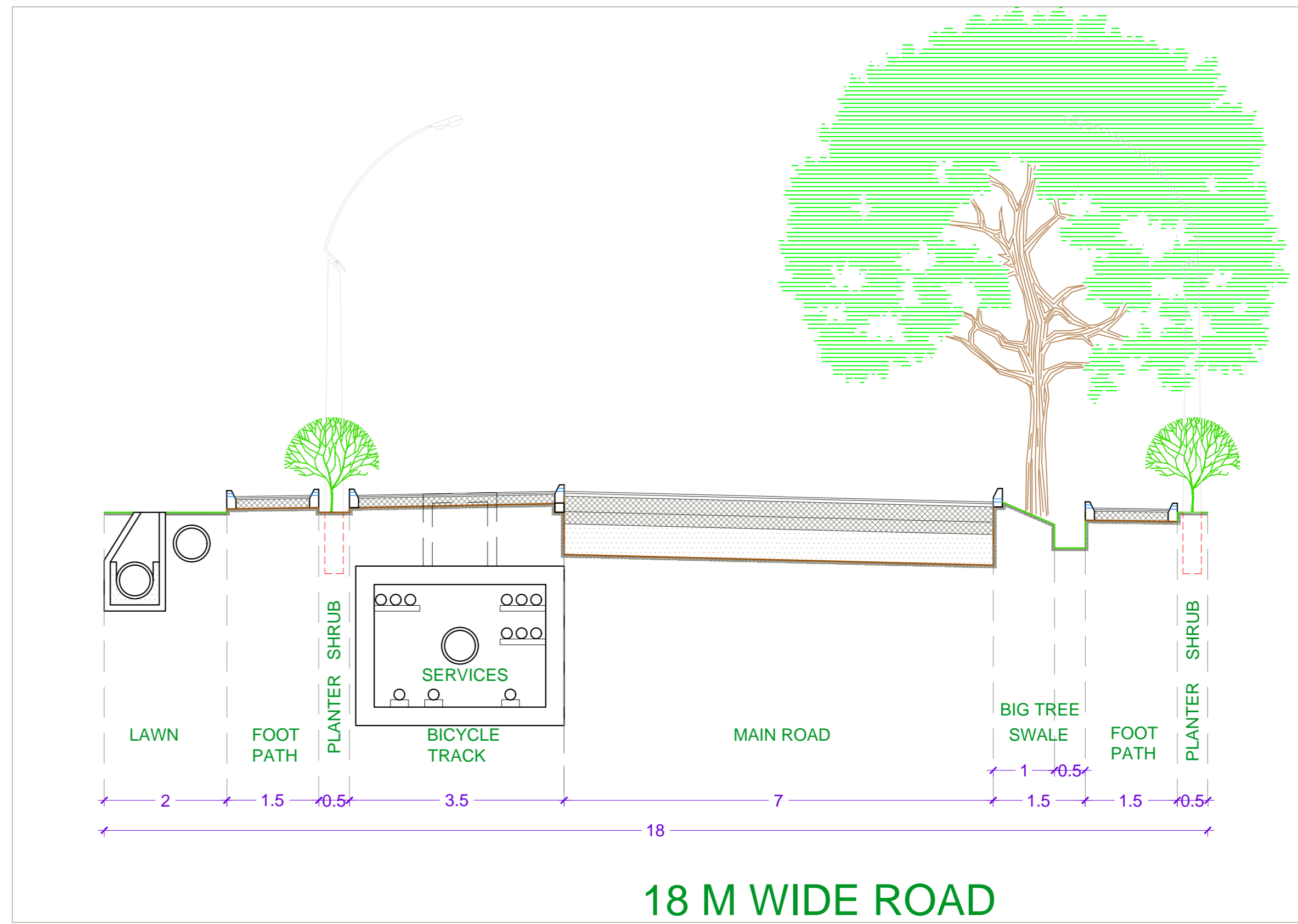
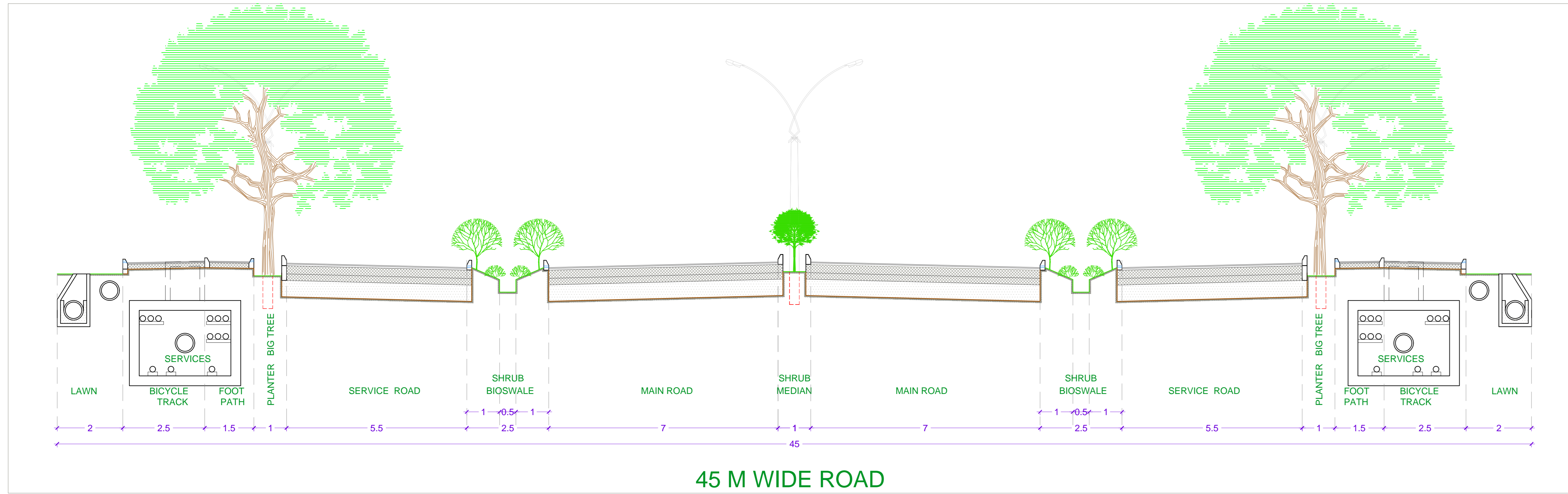
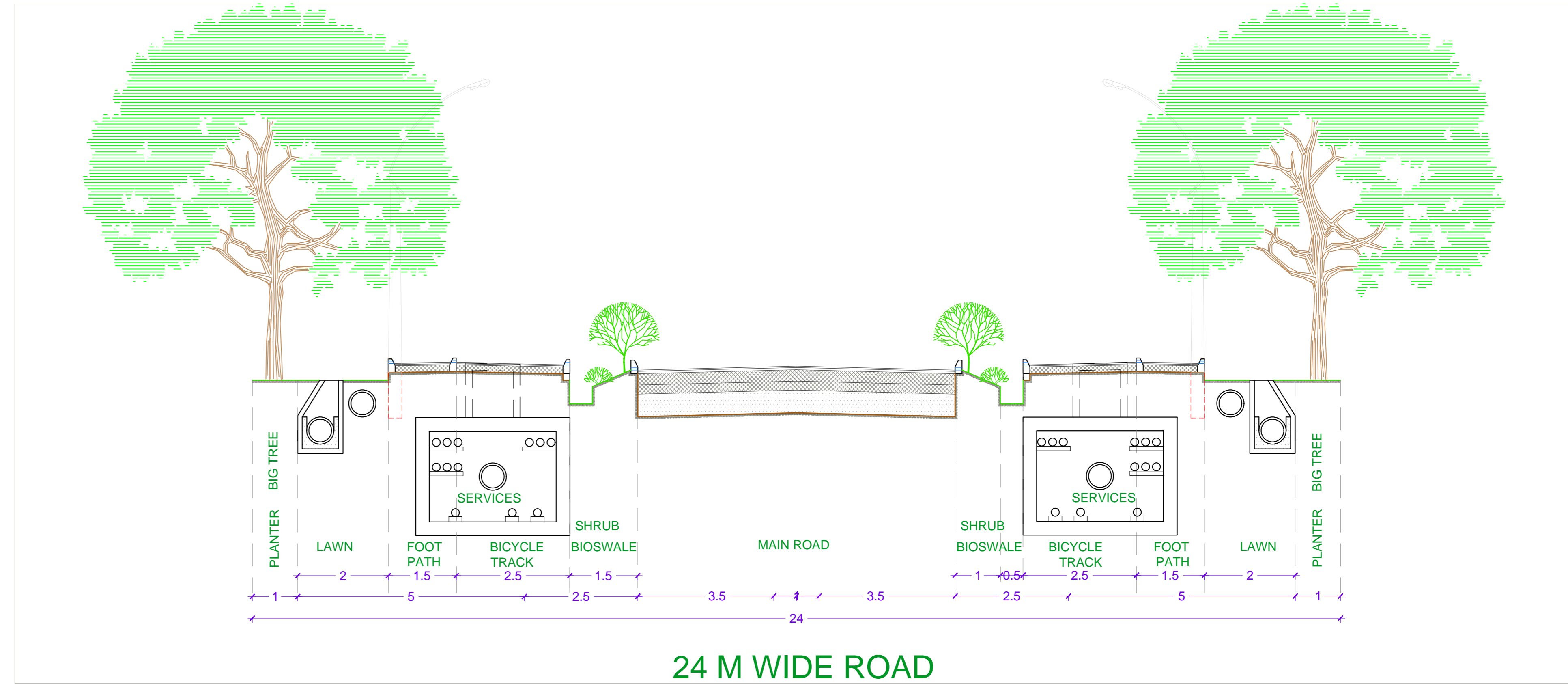
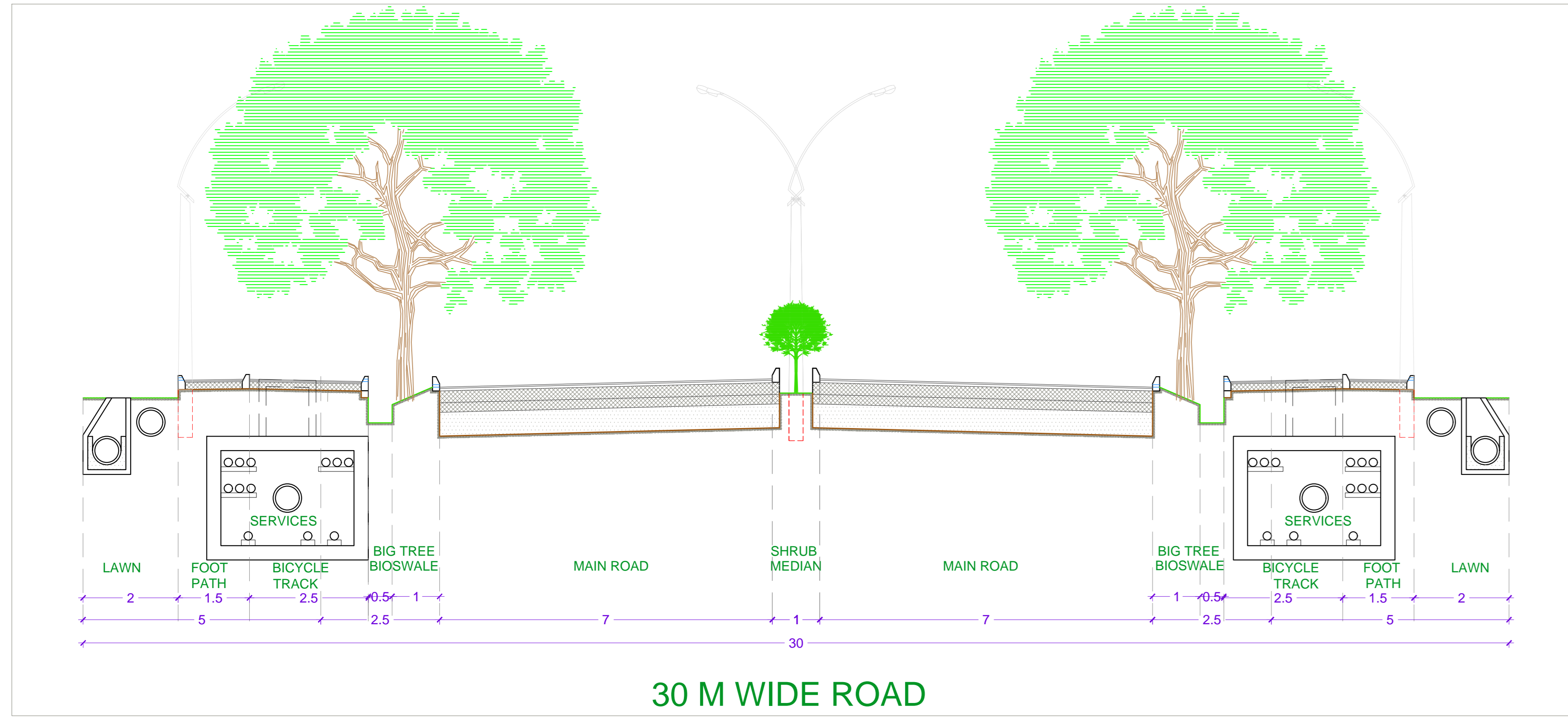
PROJECT:  
N.I.M.Z. at Hyderabad.

CLIENT:  
L & T Infrastructure  
& Engineering Ltd.



**OIKOS**  
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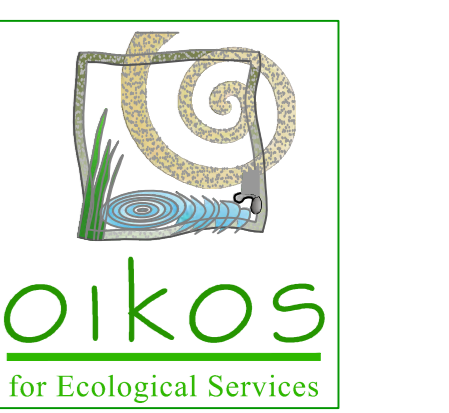
# Conceptual Road Sections



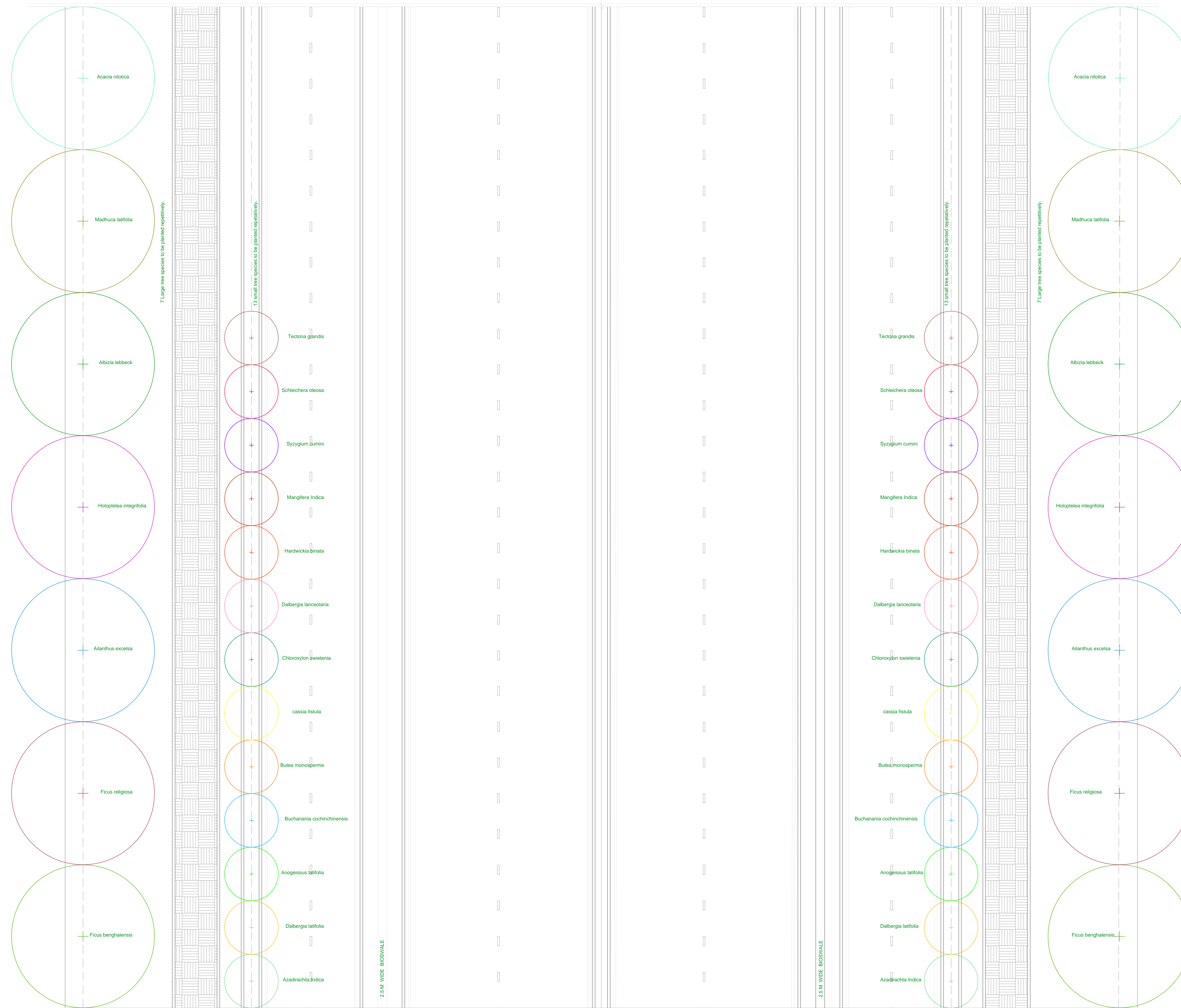
DRG NO:  
 DATE: 31-07-2021  
 DEALT BY: Ar. Hrushikesh



PROJECT: NIMZ, Hyderabad.  
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# Typical Tree Plantation Plan for Road

DRG NO:

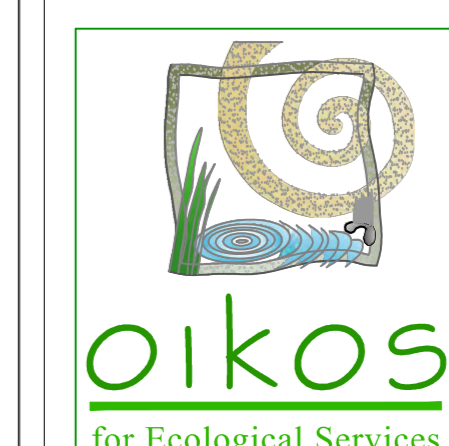
DATE: 31-07-2021

DEALT BY: Ar. Hrushikesh



PROJECT: NIMZ, Hyderabad.

CLIENT: L&T Infrastructure Engineering Limited



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