EXECUTIVE SUMMARY

Draft

Environmental Impact Assessment

Of

Dholera Special Investment Region (DSIR)

In Gujarat

Prepared For

Delhi Mumbai Industrial Corridor Development Corporation Ltd.

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Prepared By

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February 2013
EXECUTIVE SUMMARY

DSIR and Its Overall Perspective

Special Investment Regions (SIRs) having world class infrastructure along the Delhi Mumbai Dedicated Freight Corridor (DFC) are planned to be developed. Dholera Special Investment Region (DSIR) in Gujarat is one of the earliest investment regions to be designated under the proposed Delhi-Mumbai Industrial Corridor project (DMIC) along this freight corridor.

The perspective plans prepared for the entire Delhi Mumbai Industrial Corridor clearly set out environmental goals as:

- To realize environmentally sustainable development by promoting exemplar eco-developments
- To ensure the highest environmental standards in new mixed used developments in the region
- To protect and conserve air, water and soil quality, rivers and lakes, forest, biodiversity, wild life habitats and productive agricultural lands

The DSIR region falls in the 150 km band of influence area of the DMIC and at a distance of nearly 95km from the proposed alignment of the DFC. The site for the proposed development of the DSIR is a rural area of approximately 920 sq. km, comprising 19 villages of Dhandhuka Taluka and 3 villages of Barwala Taluka, totaling 22 villages of Ahmedabad District of Gujarat.

DSIR has been delineated considering key factors such as availability of maximum Government land, proximity to major cities, sea port & airport; availability of existing linkages; no. of people & villages getting affected and nearby ecological habitat. Four site alternatives were considered and the selected alternative was a combination of two site alternatives, with least no. of villages being affected, and highest % of government land available.

DSIR is fundamentally going to involve development of a large urban settlement, large industrial and commercial zones and all associated infrastructure facilities such as transport, energy, and all other social infrastructure facilities such as health, education, communication, recreation. All such developments are expected to involve world-class facilities and large amount of investment from Indian and International investors.

Agencies Involved

Delhi Mumbai Industrial Corridor Development Corporation (DMICDC) is the Project Development Agency for the DSIR. Government of Gujarat (GoG) has set up a four tier

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1 Dholera has been declared as Taluka recently. All 22 villages of Dholera SIR come under Dholera taluka.
administrative mechanism comprising of Apex Authority (GIDB), a Regional Development Authority (RDA), a Project Development Agency (GICC) and project specific SPVs for establishment, operation, regulation and management of the SIRs including DSIR, under The Gujarat Special Investment Region Act, 2009.

Competent and creditable agencies have been involved in planning this development, studying the baseline environmental and social characteristics of the area, and assessing various important components in planning the DSIR development. Based on the Terms of Reference issued by the Expert Appraisal Committee (for CRZ, Infrastructure & Miscellaneous Projects and New Construction and Industrial Estate Projects) of the Ministry of Environment & Forests (MoEF), Government of India, Environmental Impact Assessment of the Development Plan of DSIR has been undertaken by SENES Consultants India Private Limited (an accredited EIA Consultant).

Location Details

Site for the proposed SIR is located within the Saurashtra peninsula, bordering the Gulf of Khambhat and is about 100 km south of Ahmedabad and 130 km from Gandhinagar. It encompasses 22 villages comprising of 19 villages of Dhandhuka Taluka and 3 villages of Barwala Taluka of Ahmedabad District. The site is strategically situated between the main industrial centers of Ahmedabad, Vadodara, Surat, Rajkot and Bhavnagar.

**Figure E-1: DMIC Corridor and Location of DSIR**
Connectivity

Road Connectivity

The DSIR is presently connected to the rest of the State by a two-lane road (SH-6), one major district road and other village roads. Parallel or diagonal to the site are other State Highways, notably SH-1, SH-4, SH-20 and SH-36 that connect to SH-6. Government has long term plans to develop a six lane access-controlled highway along SH-6 from Ahmedabad to Bhavnagar via Dholera. In the interim the SH-6 is being upgraded to a 4-lane dual carriageway road.

Rail Connectivity

There is no rail connection to the DSIR at present. The nearest railway station is at Dhandhuka on the meter gauge rail line from Gandhigram to Botad.

Air Services

Sardar Vallabhbhai Patel International Airport at Ahmedabad, nearly 100 kms away from the site is the nearest air facility to the DSIR. Dholera Greenfield international airport is proposed at approximate distance of about 15 km north-east of the DSIR near Navagam village.
Existing Land Use/ Land Cover

As per the LU/LC studies carried out for DSIR, highest LU/LC class is agriculture land, constituting 47.46% of the study area, comprising of fallow land (39.97%) or cropland (7.49%), followed by salt-affected area with/without vegetation and salt encrustation (23.16%). Mudflat with/without vegetation is one of the categories with limited extent (5.52%). Other LU/LC categories with low extent are terrestrial tree cover (3.44%), mangrove (2.48%) and aquatic vegetation (1.63%). The herbaceous cover (dense, open and degraded) covered moderate extent (i.e., 10.07%) of the study area. Details of the Land use / Land cover classes, based on GEER survey, in the study area are given in Table below.

**Table E-1: Land Cover Classes in DSIR**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Classes</th>
<th>Area (Ha)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mudflat with Vegetation</td>
<td>1632.81</td>
<td>1.78</td>
</tr>
<tr>
<td>2</td>
<td>Mudflat without Vegetation</td>
<td>3431.40</td>
<td>3.74</td>
</tr>
<tr>
<td>3</td>
<td>Dense Mangrove</td>
<td>1536.07</td>
<td>1.67</td>
</tr>
<tr>
<td>4</td>
<td>Open Mangrove</td>
<td>743.72</td>
<td>0.81</td>
</tr>
<tr>
<td>5</td>
<td>Salt Affected with Vegetation</td>
<td>3960.44</td>
<td>4.31</td>
</tr>
<tr>
<td>6</td>
<td>Salt Affected without Vegetation</td>
<td>14422.65</td>
<td>15.71</td>
</tr>
<tr>
<td>7</td>
<td>Salt encrustation</td>
<td>2878.09</td>
<td>3.14</td>
</tr>
<tr>
<td>8</td>
<td>Dense Tree Cover</td>
<td>196.46</td>
<td>0.21</td>
</tr>
<tr>
<td>9</td>
<td>Open Tree Cover</td>
<td>2133.35</td>
<td>2.32</td>
</tr>
<tr>
<td>10</td>
<td>Degraded Tree Cover</td>
<td>834.04</td>
<td>0.91</td>
</tr>
<tr>
<td>11</td>
<td>Dense Herbaceous cover</td>
<td>3929.33</td>
<td>4.28</td>
</tr>
<tr>
<td>12</td>
<td>Open Herbaceous cover</td>
<td>3732.39</td>
<td>4.07</td>
</tr>
<tr>
<td>13</td>
<td>Degraded Herbaceous cover</td>
<td>1575.84</td>
<td>1.72</td>
</tr>
<tr>
<td>14</td>
<td>Aquatic Vegetation</td>
<td>1495.92</td>
<td>1.63</td>
</tr>
<tr>
<td>15</td>
<td>Agriculture Cropland</td>
<td>6876.65</td>
<td>7.49</td>
</tr>
<tr>
<td>16</td>
<td>Agriculture Fallow land</td>
<td>36694.29</td>
<td>39.97</td>
</tr>
<tr>
<td>17</td>
<td>Settlement</td>
<td>288.03</td>
<td>0.31</td>
</tr>
<tr>
<td>18</td>
<td>Water body (Pond / Khet-talavadi)</td>
<td>1082.77</td>
<td>1.18</td>
</tr>
<tr>
<td>19</td>
<td>Waterlogged area</td>
<td>853.95</td>
<td>0.93</td>
</tr>
<tr>
<td>20</td>
<td>Creek</td>
<td>3049.28</td>
<td>3.32</td>
</tr>
<tr>
<td>21</td>
<td>River</td>
<td>453.41</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>91800.90</td>
<td>100.00</td>
</tr>
</tbody>
</table>
FIGURE E-3: LAND COVER MAP OF DSIR

LAND COVER MAP OF DSIR

Legend
- DSIR Boundary
- State Highway
- Village Road
- Village Boundary

Land cover class
- Settlement (Rural)
- Mudflat with Vegetation
- Mudflat without vegetation
- Dense Mangroves
- Open Mangroves
- Salt affected with vegetation
- Salt affected without Vegetation
- Salt Encrustation
- Agriculture cropland
- Agriculture Fallow land
- Dense Tree cover
- Degraded Tree cover
- Degraded Herbaceous cover
- Salt affected without vegetation
- Dense Herbaceous cover
- Open Herbaceous cover
- Waterbody (Pond/Khelalavadi)
- Waterlogged area
- Aquatic vegetation
- Creek
- River

SOURCE:
Gujarat Ecological Education and Research Foundation (GEER)
FIGURE E-4: LAND USE MAP AS PER LEGAL STATUS OF DSIR

Legend
- DSIR Boundary
- Existing state highway
- Village Road
- Forest
- Village Boundary
- Talav
- Survey number boundary
- Salt ingressation
- River
- Open scrub
- Open ground
- Na for Residential
- Na for hotel petrol pump
- Marshy vegetation
- Ganital
- Existing settlement
- Agriculture

Source:
EXISTING LANDUSE PLAN-DSIRD
MODIFIED PLAN PUBLISHED
US 17 OF ACT - 2009
ANDUS 15 OF ACT - 1976
Proposed Land Use

Proposed land use in DSIR include residential, industrial, tourism, commercial, knowledge & IT, recreation sports and entertainment, etc. The planning horizon for the DSIR is 30 years, 3 equal development phases of 10 years. Allocation of various land uses over the three phases is given in Table below.

### TABLE E-2: SUMMARY OF LAND PROVISIONS FOR DSIR

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Land use zone</th>
<th>Phase 1 Area (ha)</th>
<th>Phase 2 Area (ha)</th>
<th>Phase 3 Area (ha)</th>
<th>Total Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Residential</td>
<td>2,187</td>
<td>4,268</td>
<td>3,326</td>
<td>9,780</td>
</tr>
<tr>
<td>2</td>
<td>High Access Corridor</td>
<td>690</td>
<td>1,177</td>
<td>598</td>
<td>2,465</td>
</tr>
<tr>
<td>3</td>
<td>City Centre</td>
<td>318</td>
<td>170</td>
<td>191</td>
<td>679</td>
</tr>
<tr>
<td>4</td>
<td>Industrial</td>
<td>4,554</td>
<td>4,044</td>
<td>2,859</td>
<td>11,457</td>
</tr>
<tr>
<td>5</td>
<td>Logistics</td>
<td>93</td>
<td>4</td>
<td>107</td>
<td>204</td>
</tr>
<tr>
<td>6</td>
<td>Knowledge &amp; IT</td>
<td>585</td>
<td>-</td>
<td>645</td>
<td>1,230</td>
</tr>
<tr>
<td>7</td>
<td>Recreation Sports &amp; Entertainment</td>
<td>1,959</td>
<td>1,216</td>
<td>1,324</td>
<td>4,500</td>
</tr>
<tr>
<td>8</td>
<td>Strategic Roads</td>
<td>845</td>
<td>859</td>
<td>790</td>
<td>2,494</td>
</tr>
<tr>
<td>9</td>
<td>Strategic Infrastructure</td>
<td>52</td>
<td>212</td>
<td>60</td>
<td>324</td>
</tr>
<tr>
<td>10</td>
<td>Public Facility Zone</td>
<td>221</td>
<td>94</td>
<td>247</td>
<td>562</td>
</tr>
<tr>
<td>(A)</td>
<td><strong>Subtotal - Urban</strong></td>
<td><strong>11,505</strong></td>
<td><strong>12,045</strong></td>
<td><strong>10,147</strong></td>
<td><strong>33,696</strong></td>
</tr>
<tr>
<td>11</td>
<td>Tourism - Resorts (CRZ III)</td>
<td>2,046</td>
<td>681</td>
<td>1,162</td>
<td>3,889</td>
</tr>
<tr>
<td>12</td>
<td>Solar Park (located in CRZ-I)*</td>
<td>-</td>
<td>1,346</td>
<td>-</td>
<td>1,346</td>
</tr>
<tr>
<td>(B)</td>
<td><strong>Area subject to phased Development</strong></td>
<td><strong>38,931</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Greenbelts</td>
<td></td>
<td></td>
<td></td>
<td>1,960</td>
</tr>
<tr>
<td>14</td>
<td>Village Buffer</td>
<td></td>
<td></td>
<td></td>
<td>1,325</td>
</tr>
<tr>
<td>15</td>
<td>Existing Village Settlement</td>
<td></td>
<td></td>
<td></td>
<td>447</td>
</tr>
<tr>
<td>16</td>
<td>Agriculture</td>
<td></td>
<td></td>
<td></td>
<td>12,804</td>
</tr>
<tr>
<td>17</td>
<td>Rivers, Canal and Other Water bodies</td>
<td></td>
<td></td>
<td></td>
<td>2,468</td>
</tr>
<tr>
<td>(C)</td>
<td><strong>Subtotal Non-urban (11 to 12 + 14 to 17)</strong></td>
<td><strong>22,893</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Developable Area (A+C)</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>56,589</strong></td>
</tr>
</tbody>
</table>

* Solar energy park was planned in CRZ I initially during the DP stage. As per CRZ Notification 2011, solar park is not permitted in CRZ I, location of solar energy park will be finalized after undertaking a detailed study.

**Phase 1:** The early development of DSIR is located in the north of the site, close to Dholera, on either side of the existing SH-6. The northern part of the DSIR is more developed than the south and has better existing road connections to Ahmedabad, Vadodara and the nearest railhead at Dhandhuka. This area is also closest to source of fresh water and electric power lines.
The largest concentration of Government owned land is in the north-east portion of the DSIR and therefore adds considerable weight to the development of this part of the DSIR in Phase 1 of the plan. Phase 1 development plan for DSIR are shown in Figure below.

**FIGURE E-5: PHASE 1 DEVELOPMENT LAND USE**

**Phase 2:** Development of the second phase will be a logical extension of the Phase 1 development and will also include a mix of industrial and residential uses. Land allocation for industry and housing in Phase 2 is expected to represent 34 percent of the total demand for urbanisable land. Additional traffic lane for SH-6 in both directions will be provided.
Building of the first section of the tram system will be started during this period. Phase 2 development plan is shown in Figure below.

**Figure E-6: Phase 2 Development - Land Use**

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**Phase 3:** This phase will see development on the western and southern sides of the DSIR, again with a balanced mix of land uses. Phase 3 will provide a balance of industrial and housing uses, together with supporting community infrastructure and commercial centres. Figure showing development plan for phase 3 is shown below.
FIGURE E-7: PHASE 3 DEVELOPMENT - LAND USE
Overall development plan is shown in Figure below.

**Figure E-8: Spatial Development Plan**

**Planned Activities**

**Housing:** About 500,000 dwellings units comprising of High Income Group (HIG), Middle Income Group (MIG), Low Income Group (LIG) and Economically Weaker Section (EWS)
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Will be provided in the DSIR. Housing will be located in designated residential areas, in high access corridors, and commercial zones within city centre and district commercial centres.

Community facilities: Proposed DSIR will be self contained in terms of health, education, cultural, Government, sports and open space facilities.

Commercial: A range of commercial uses including retail shops, offices and the hospitality industry, which includes hotels and entertainment venues will also be a part of DSIR.

Hospitality and Tourism: DSIR will have 5 Star/5 D, 4Star, 3Star, Budget Hotel and Service Apartments to meet the demand of hospitality within DSIR. Tourism destinations proposed to be developed in DSIR include Theme Park, Large Aquarium, Night Safari, Exhibition grounds, Golf Course, Handicrafts, Film City, Religious Places and Museum.

Industry: Industrial and economic sectors being targeted for development in DSIR are Electronics, High Tech and Emerging Technologies, Pharmaceuticals and Biotechnology, Heavy Engineering, Automobile and Auto Ancillary Industries, General Manufacturing, Tourism, Agro and Food Processing, Metals and Metallurgical Products, IT/ITES, Education etc. In addition, small, light and cottage industries will be expected to develop in response to the requirements of the main industrial sectors and the growing urban population.

Open Space & Recreation: Public parks, open spaces and landscaped roads and corridors are planned in DSIR in order to ensure that the city is an attractive and desirable place to live. DSIR will also have number of attractive lakes and canals in order to create the potential for waterfront development.

Water & Wastewater Management System

Water demand for the proposed DSIR will be 947 MLD, out of which residential and industrial water demand will be 298 MLD and 491 MLD, respectively. 240 MLD of treated wastewater from Ahmedabad Municipal Corporation (AMC) and 240 MLD of treated wastewater from the existing STPs in the premises of Ahmedabad Urban Development Authority (AUDA) will be the source for industrial grade water demand. Water from Narmada Canal will be used to fulfill the irrigation water demand for the DSIR. Recycled wastewater from the DSIR will be used for irrigation of land, gardens and park and also for industrial uses. Water from Pariyej reservoir and Kanewal reservoir (~100 MLD) will be used for domestic purpose in initial phases for domestic application. Ultimately desalination plant, downstream of Kalpasar will be build, which will serve as the source of water for DSIR.

Wastewater generated in the DSIR will be treated at sewage treatment plants (STPs) and common effluent treatment plant (CETPs) so as to reuse the treated wastewater onsite.

Two water treatment plants will be provided, one near Ottariya village (for phase 1 & phase 2) and other near Hebatpur (phase 2 & phase 3).
Solid Waste Management System: An integrated approach will be adopted in the DSIR to efficiently manage the solid waste generated in the region. The waste that will be generated in the DSIR can be broadly categorised as municipal waste and industrial waste. However, based on composition and characteristics they are further categorised as hazardous waste, bio-medical waste, wet organic waste, dry organic waste, electronic- waste, recyclable waste and inert material. An area of about 200 ha has been identified for the Integrated Waste Management Facility (IWMF) to be provided in the DSIR to deal with all wastes. Essentially the IWMF will include:

- Waste Collection and Storage Facility;
- Waste Processing Facility (Segregation, Reuse, recycle, recovery of valuables etc.);
- Waste Treatment and Disposal Facility (Waste to energy, creating compost, incineration and landfill).

Landfill sitting will be based on guideline provided by the (CPHEEO), 2000; Schedule III of Municipal Solid Wastes (Management & Handling) Rules, 2000, as provided by Ministry of Environment and Forests, Hazardous Waste (Management & Handling) Rules 1989, and its amendment in 2001 and 2003; the Gujarat Pollution Control Board (GPCB), Gujarat.

Power supply: Total Power demand for the proposed DSIR will be approximately 1700 MW. The industrial load will be the main power consumer, taking approximately 63% of total demand with social infrastructure constituting 27% and remaining 11% is being accounted for by mixed loads.

Information Communication Technology (ICT)/ Telecommunication Network (ICT): DSIR has proposed to develop the ‘Fiber-To-Home concept’, which will carry all the signals for telephone (landline), broadband internet, video on demand, entertainment channel, and so on.

Current Environmental and Socio-Economic Status of This Region

The key baseline environmental and social characteristics of the DSIR region, as assessed by expert agencies are:

- Low density of native population with significant seasonal-migration due to low employment opportunities and inadequate social infrastructure in the area.
- Rain-fed and low-yield agriculture with some cattle rearing dependent native population
- Most of the land being a single-cropped agricultural land, followed by open scrub and salt ingressed land
- Water - scarce with only seasonal surface water streams, with a shallow but saline ground water aquifer
- Proneness to water – logging and flooding in extreme cases
- Sparse and low vegetation
• Proximity to coast and a National Park which is a grass-land habitat for endangered species of Black buck
• Devoid of any industrial and mining activities currently, and devoid of any man-made sources of environmental degradation or pollution load.

Land Contribution and Agriculture Compatibility

Dholera Special Investment Region is being developed using the Town Planning Schemes wherein land is not acquired but land pooling and readjustment is done where the original land owners benefit from urban development. Most of the land selected for DSIR is not very conducive for agriculture, while a significant portion of land located on the western part of the DSIR region is reserved for agriculture, as these lands have a comparatively better agricultural productivity. The proposed irrigation canal network from the Narmada River will continue its development in these areas with some modifications.

Environmental Planning of DSIR

Existing environmental resources and conditions have been assessed and development has been planned accordingly. The region will be expected to cater to a very long term environmental situations and changes. Although environmental approvals for these developments are being sought under the current institutional framework, several future environmental policies, regulations, standards are likely to influence the proposed developments. In addition to this, several new technologies and methods influencing environmental concerns will be introduced as part of these developments.

It is therefore recognised that environmental management of this scale and size of development has to be dynamic enough to foresee and avoid deterioration of environmental conditions of the area in future. Environmental compatibility of the proposed land use zoning will be maintained by adopting and implementing region specific standards as per the guidelines of the Central Pollution Control Board, and policy directions of the Ministry of Environment & Forests for Sustainable Development.

Support to Native Population

Public Consultations

Before the initiation of town planning scheme (TPS) all cadastral records are collected to reflect the ownership details, extent (area), tenures, and encumbrances for every land parcel and are compiled in a prescribed format. Along with the cadastral records, all types of spatial records (maps) are also collected, vectorized and reconciled with the physical survey of the area. The area from the maps and records are compared and finalized. On the final base map of the area that shows the survey, the boundary of the TPS area is clearly marked.

At this stage, the intention to prepare a TPS for the area was publicized in a clear fashion in local newspapers. Landowners were consulted for the first time and heard at the stage when the work on the draft town planning schemes was completed. For the meetings special
arrangements were made by informing the date and venue of the meeting to the villagers well in advance. Sitting arrangements for participants and necessary audio visual aids were provided to ensure that the presentation made for describing the DSIR could be clearly understood by the people. All proceedings, banners, brochures distributed to the land owners/villagers, presentations, written documents and others were in the local language ‘Gujarati’. Local dialects were also used to enable the local villagers to present their views and also understand the discussion, responses made by the Officials.

Based on the suggestions and objections received from each landowner, the draft TPS was modified and published. It was again thrown open for objections and suggestions from the landowners. Based on the second round of objections and suggestions, it was modified and then submitted to the State Government for approval. After approval, the draft TPS is called the sanctioned draft TPS.

The approach of villagers is quite positive towards the SIR development. They want to remain in their respective Gramtal area which has been considered as buffer zone in the Development Plan.

**Development of Local Population**

Currently the education, skill and employability capability of the villagers is low. A skill development centre and entrepreneurship centre is planned, to enable the villagers to develop skills as per the economic and employment opportunities created by this development.

Dholera Welfare Society is created to assist and support the villagers in communication, protection of land development rights of the villagers, a grievance redressal mechanism at the village level, monitor activities at village level, and also assist the Regional Development Authority (RDA) for DSIR in managing funds allotted for upgrading/developing infrastructure.

Village Buffer Zones are proposed around each village to primarily facilitate integration of native village settlements with the surrounding urban land uses over time, give a sense of ownership and control to the village residents on their immediate environs, and prevent uncontrolled development in the vicinity of the village fabric. Village Buffer Zone will be predominantly a residential zone with supporting community amenities and neighbourhood retail uses. RDA will be responsible for development and maintenance of adequate buffer as per the Gujarat Special Investment Region Act, 2009.

In order to minimize the disturbance to villagers due to industrial activities, it is proposed that buffer zone will be maintained between the village and the nearby industrial parks as specified in GDCR. Also green buffer zones will be developed on the edges of the industrial plots.

**Key Strategic Actions for Environmental Planning of Development in DSIR**

- Facilitate water needs for reserved agricultural lands by aligning proposed Narmada irrigation canal network with DSIR infrastructure development.
• Align eco-sensitive zone around Velavadar National Park (VNP) with land use zoning of DSIR.
• Delineation of Ecological Conservation Zone by integrating forest lands in DSIR region with green belts proposed to be developed on either side of surface water streams and creeks.
• Enhance conservation needs of Blackbuck population by integrating with flood mitigation planning for DSIR region, and development of wildlife crossings as part of linear infrastructure (Roads, Railway) planned in DSIR region.
• Coastal area environmental conservation taking into consideration, dependence on these areas by the native population for their livelihoods, and applying eco-tourism principles.
• Formulation of detailed assessment and preparedness plan to align DSIR development with Kalpsar project.
• Detailed wetland conservation action plan in accordance with size and importance of the wetlands in the region.
• Integration of “Green Building” concepts in construction of various institutional, commercial and residential structures.
• Detailed energy efficiency plan based on futuristic technologies, to be able to strongly integrate energy efficiency into DSIR development bye-laws.
• Setting-up environmentally compatible power generation facilities to meet the power needs for DSIR.
• Water resource planning (including recycling/reuse needs), after evaluating the various water sourcing options and in concurrence with recommendations from Expert Appraisal Committee of MoEF.
• Siting of appropriate location of desalination plant, and impact based selection of ultimate marine disposal for non-recyclable but treated liquid waste - in accordance with marine ecology related sensitivities in the Gulf of Khambat.
• Use of latest technological options w.r.t. water intensivity and waste generation of the select manufacturing sectors, to enable screening of industrial manufacturing investment proposals for DSIR region.
• Ensure bulk availability of cleaner fuels to meet the needs of transportation, industrial utility, commercial / institutional establishments and domestic cooking.
• Evaluate possibilities of establishing common industrial utility infrastructure vis-a-vis adoption of eco industrial park concepts wherein utilities such as steam / compressed air / heat from one facility could be used in another facility of the industrial park.
• Siting and selection of individual manufacturing facilities based on carrying capacity planning of DSIR region air shed. Develop and adopt a decision making tool in formulating region specific ambient air and emissions standards, which will then be extended for similar standards for noise and surface water streams in and around DSIR region.
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- Selecting and evaluating investments in emerging areas such as biotechnology wherein regulations are also still evolving in the country e.g., selection of individual biotechnology based manufacturing units based on applicable biosafety, bioethics and bio prospecting related regulations.

- Developments with potential technological hazards will be selected and sited based on land use safety planning to ensure compatibility with surrounding land uses, through an implementable framework. Delineation of such a framework will be based on risk criteria and will also assist in regional emergency management planning.

- Transport infrastructure plans and designs will integrate transport hazard mitigations for pedestrians, non-motorized transport and users of motorized transport, in accordance with National Urban Transport Policy.

- Detailed planning to mitigate as well as respond to urban risks of fire, utility failure, and epidemiological risks. An exhaustive disaster management plan will be evolved and integrated with the district level plans.

- Strategic regional level planning to facilitate sourcing of large scale construction material needs through environmentally compatible sourcing of quarry material and industrial / domestic solid waste resources available in the region.

- Comprehensive action plan to integrate compliance conditions from all clearances with the development plan with well-defined responsibilities.

Overall Benefits

At present the area delineated in the DSIR is very sparsely populated with very little development which is reflected by zero urban centres in the vicinity of Dholera (25 km radius distance). Agriculture is main activity in the region, however due to highly saline, non-fertile soil, saline ground water and rain fed irrigation, the yield is very poor. The road connectivity is also not so good in the region. The development of various infrastructure facilities in Dholera SIR, will lead to change in land use and overall development in the region. The non fertile, saline and barren land will be developed into various industrial, commercial and residential areas under Special Investment Region. Also overall Dholera SIR development will lead to socio-economic development of area. The environmental conservation and efficiency measures proposed to be adopted will make the region more liveable for the native population as well as a large population that it will attract due to economic opportunities, social infrastructure, and recreation.