

Pre – Feasibility Report

Industrial Area Kundiya, Banswara District,
Rajasthan 115.80 Acres by Rajasthan State
Industrial Development & Investment
Corporation Limited



Ministry of Environment, Forest and Climate Change

Government of India

सत्यमेव जयते



Emails: kk@vitya.in
ed.vitya@gmail.com
Mob: +91-9989 211 387
+91-9000 611 387

1.0 Executive Summary

RIICO has pioneered industrialization of the State of Rajasthan by setting up of industrial areas. RIICO also acts as a financial institution by providing loan to large, medium and small scale projects. A Government enterprise incorporated under Companies Act, 1956 on 28th March, 1969 as Rajasthan State Industrial & Mineral Development Corporation (RSIMDC) and bi-furcated into Rajasthan State Industrial Development & Investment Corporation Limited (RIICO) and Rajasthan State Mineral Development Corporation (RSMDC) on 1st January, 1980.

RIICO has set up 28 Regional Offices all over Rajasthan to administer the development and management of the industrial areas. Physical infrastructure developed includes roads, power, street light, water supply, drainage etc. along with provisions for basic social infrastructure. RIICO has so far developed 338 Industrial Areas by acquiring around 82000 acres of land. RIICO has catalyzed investment of around 90 billion with RIICO's contribution to term loan being around Rs. 33.69 billion and generating employment of around 1.09 lakh persons. More than 37000 industrial units are in production in these industrial areas.

RIICO has also embarked upon creation of Special purpose Industrial areas with excellent infrastructure facilities for a particular type of industry. The locations for these industries - specific areas are carefully selected after assessing the availability of related resources such as raw material, labour etc.

Some of the important parks are:

- Special Economic Zones (Jaipur and Jodhpur)
- Agro Food Parks (Kota, Jodhpur, Sriganganagar & Alwar)
- Export Promotion Industrial areas (Jaipur, Jodhpur and Neemrana)
- Information Technology Parks (Jaipur, Jodhpur, Kota and Udaipur)
- Gems & Gold Jewelry Complex (Sitapura, Jaipur)
- Textile City (Bhilwara)
- Leather Complex (Manpur Macheri, Jaipur)
- Ceramics Complex (Khara, Bikaner)
- Mineral Complexes (Karauli, Sawai Madhopur, Dhoinda in Rajsamand and Mitrapura in Dausa)
- Bio-Tech Parks (Sitapura- Jaipur and Chopanki-Bhiwadi)

Objectives of RIICO

- To formulate, promote, finance, aid, assist, establish, manage and control schemes, Projects or programmers, to provide and develop infrastructure facilities, including factory sites, factory sheds, godowns, marketing facilities, warehouses facilities of communications, power, water drainage, housing, hospitals and other medical and health and educational institutions and other services of any description in order to promote and assist the rapid and orderly establishment, growth and development of industries and commerce in the State of Rajasthan.
- To aid, assist, promote and finance industries set up in the factory sheds constructed or factory sites developed by the Company, whether owned or run by Government, statutory body, co-operatives, company, firm or individual or others and to provide them with capita, credit, means and resources for the prosecution of their work and business and to enable them to develop and improve their management, production and marketing techniques.
- To implement schemes of incentives (financial and otherwise), subsidies and the like formulated by the Government of Rajasthan, Government of India or other authorities or institutions and to administer such schemes in incentives as may be devised by the company from time to time in the interest of the establishment and development of industries and commerce in the State of Rajasthan.
- To carry on the business of hire purchase in, or to enter into hire purchase agreements with respect to the purchase and sole of, any goods, plant and machinery, tools and implements as aforesaid with any person, association, society or other body corporate on such terms and conditions as may be lawful.
- To promote, establish, improve, develop, administer, own and run Tools Rooms, Pattern Shops Service Shops, Repair Shops or Work Shops to maintain, repair, refine, manipulate, alter or improve any plant, machinery, implements, accessories, appliances, apparatus, tools, goods or things of any description capable of being used by any customer of or person having dealings with the Company, or commonly dealt in by persons engages in any such business which may seem capable of being profitably dealt with by the Company and to manufacture, import, export, buy sell or otherwise deal in workshop machinery of all kinds.
- To undertake such other activities, industrial, commercial or financial, this will create Conditions conducive to the growth of industries in the State of Rajasthan. The authority is in possession of land to an extent of **115.80 Acres**, near Kundiya (V), Banswara District, where in it was proposed an Industrial area housing multi sector industries based on the site suitability and market potential. The authority has appointed **Vitya**

Consultants to carry out site screening, prefeasibility report, environmental impact assessment and environmental management plan studies for obtaining environmental clearance from the competent authority MOEF, New Delhi for the proposed Industrial area.

RIICO Organization Chart



1.1 Features of the Site

Name of the Project	Establishment of Industrial Area Kundiya, Banswara District, Rajasthan
Land Area	115.80 Acres
Survey Numbers	180
Land Coordinates	23 ⁰ 13' 39.18'' N, 74 ⁰ 35' 52.98'' E, 395 - 422 m MSL
Nearest Village	Chhoti Sarwa 1.3 Km SW
Nearest Railway Station	Ratlam Railway Station 47.2 Km E
Nearest City	Banswara 38.5 Km NW
Nearest Airport	Udaipur Airport 220 Km
Nearest Highway	NH 113, 33.2 Km W
Nearest Water Bodies	Mahi Reservoir 23.7 Km N
Water Supply	Water Supply for industries will be taken after getting EC from MoEF&CC
Manpower Required	10,000 (7000 on permanent basis and 3000 on contract)
Working Hours	On shift basis 24 hours operational
Type of Industries proposed	Stone Cutting and polishing and Metal Fabrication Units
Categorization of industries	Categorization of industries are made based on the market Survey and demand potential and Classification of industries based on the pollution loads approved by State Pollution Control Board.
Infrastructure Proposed	The major infrastructure proposed for the industrial area are; Roads, Drainage System, Electrical Lines, Truck Parking, Admin Building, Staff Canteen, Fire Department, Bus Terminus, Recycling Facilities, Ancillary Units, Solar Street Lightning.
Cost of the Project	Rs 30 Crores INR

2. Identification of the Project and Background.

2.1 Identification of Project and Proponent

The EIA notification of 2006 stipulates that the application seeking prior environmental clearance must provide a copy of the Pre-Feasibility report (Office Memorandum dated 30th December 2010, the Ministry of Environment and Forests, Government of India) along with the application in prescribed format (Form 1).

Rajasthan State Industrial Development & Investment Corporation Limited is a progressive government organization responsible for development of industrial infrastructure in the state of Rajasthan. The RIICO is in possession of land to an extent of **115.80 Acres** near kundiya Village, Banswara District, where in it was proposed an Industrial area housing multi sector industries based on the site suitability and market potential.

2.2 Brief Description of Nature of Project

The role of the RIICO for the proposed Industrial area will consists of developing Common Infrastructural Facilities - Roads, Water Source, Power, Drainage, Street Lightening Green Belt, and social infrastructure like canteen and primary health care centre. The Proposed Industrial area will also have an Industrial Area Local Authority for maintenance of the facility, approval of building plans etc. The Industrial area will be developed based on the Sustainable Industrial Development; the need of the hour is judicious, reasonable and planned use of the finite resources of land according to their natural environmental properties.

The environmental parameters and conditions are evaluated and quantified and the suitability of sites is determined based on their sensitivity to air, water and land pollution. Economic development and industrialization have become synonymous and are integral part of regional planning of a country. There is a need that apart from preventive measures, proper siting of industries / industrial estates should be done. The environmental planning is a proven tool for achieving sustainable development. Proper siting of newly planned industries & industrial estates is a strong pollution preventive instrument that ensures environmental soundness of the industrial development. Site selection based on environmental criteria with the objective of minimizing adverse environmental impacts is, therefore, a vital prerequisite.

Establishment of an Industrial area promises to change the existing scenario and cluster the scattered community in and around the region. The setting up of the Industrial area is expected to provide a major boost to the state's multiproduct sector by ensuring a fair share of export revenues and also by raising the living standard of workers. The setting up of the

Industrial area is also expected to bring about a marked improvement in the operational efficiency of the units in the state and reduce the monopoly of few units. The proposed Industrial area will develop all amenities required for environmental friendly operation of units, and other units which can be occupied by the industrialists without any administrative hassles associated with setting up of an industry. The following are the highlights of the project.

- The proposed Industrial area is having sufficient area to house good number of industries.
- The entire Industrial area will come up in a planned manner with an approved layout taking into consideration all the statutory requirements.
- The park will have well-planned uniform and common infrastructure facilities like Roads, storm water drains, rain water harvesting pits and greenbelt.
- The Industrial area will have power supply lines of adequate street lights.
- The Industrial area will have a well-planned water supply system.

The layout of the proposed industrial area is shown in **Annexure 1**

2.3 Need for the Project and Importance to Country and Region

To formulate, promote, finance, aid, assist, establish, manage and control schemes, Projects or programmers, to provide and develop infrastructure facilities, including factory sites, factory sheds, godowns, marketing facilities, warehouses facilities of communications, power, water drainage, housing, hospitals and other medical and health and educational institutions and other services of any description in order to promote and assist the rapid and orderly establishment, growth and development of industries and commerce in the State of Rajasthan.

2.3.1 Employment Generation

An important objective of India's economic liberalization has been to provide employment opportunities not only to meet the backlog of the unemployed but also for facilitating new additions to the labour force. Even today, agriculture still accounts for the bulk of the total employment in the economy. The proposed Industrial area in Kundiya is the industrial sector involving various kinds of industrial profile sectors. The labour intensive industries generating employees will be structured in such a way that the locals are benefited and will be given a prime importance to the people for generating employment. A third dimension within the employment issues of labour-intensive firms concerns the requirement of skilled versus unskilled workers in the labour-intensive firms.

2.3.2 Employment Generation

Women workers are seen to be more skillful in working with different kinds of machines for cutting, sewing, etc. Apart from reasons based on grounds of efficiency, women workers are also preferred over their male counterparts because they are less prone to the formation of trade unions and related activities. Thus, in order to encourage more female workers to join the labour-intensive industries, the Government should provide incentives to industries to outsource more work to female workers and also to encourage them to set up units in Industrial area, wherein female workers can be encouraged to take up both full-time as well as part-time employment, depending upon their domestic duties. Government-run voluntary organizations and other women's organizations can be asked to participate in various campaigns to educate rural women workers about their employment prospects in labour-intensive manufacturing activities.

2.3.3 Encouragement for Physically Handicapped

In the categories of the jobs which are identified by ministries or departments are being particularly suitable for the physically handicapped people for providing them a best suitable job for their sustenance. The proposed Industrial area is designed in such a way that the most of the people are benefitted by the industrial segment that has been narrowly pinned down for the employment for the physically handicapped. With the introduction of Micro, Small and Medium Enterprises in the Industrial area, small portion of the segment will be to Physically Handicapped for their livelihood and meeting basic necessities.

2.3.4 Feasibility of the Project

Detailed feasibility study was carried for the proposed Industrial area. The results of the study are very encouraging and instilled confidence in would be project proponents. The infrastructure requirement for the Industrial area can be broadly classified into the following four heads;

- Basic Infrastructure
- Environmental Infrastructure
- Other Infrastructure – Industry Specific and Social Facilities

The basic infrastructure covers the main requirements like;

- Water and water treatment facilities
- Power
- Roads
- Street lights.

The Environment Infrastructure covers;

- Greenbelt
- Storm water drain
- Wastewater treatment facilities
- Solid Waste collection and disposal facilities

Other infrastructure - Industry Specific and Social Facilities

- Fire Fighting Facilities
- Security
- First aid
- Canteen

2.4 Demand Supply Gap

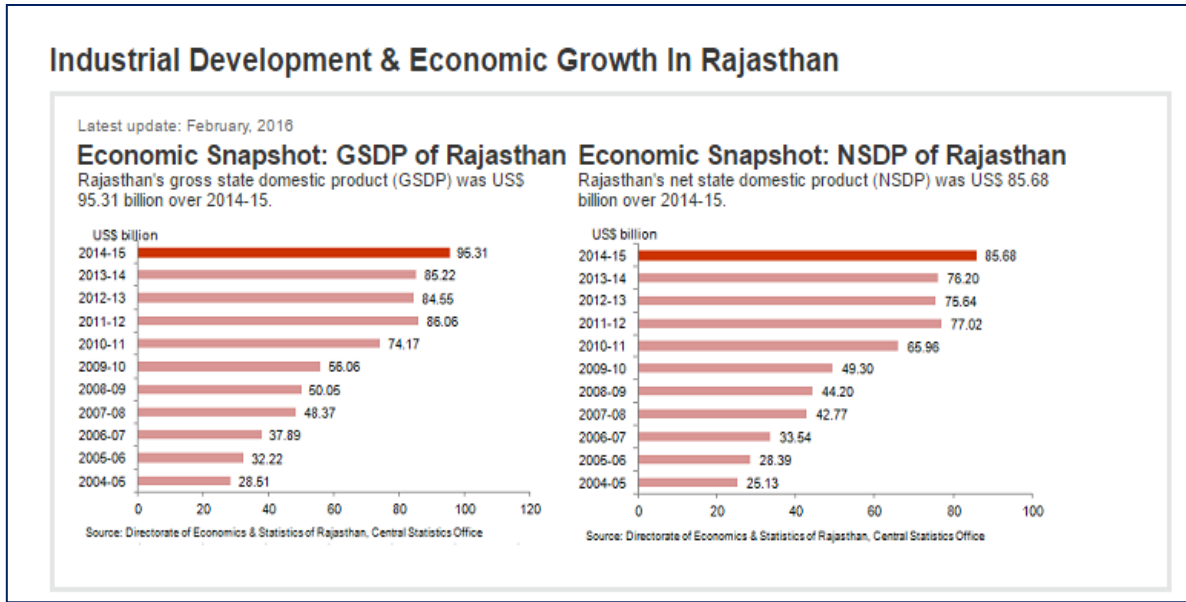
The State considers industrial growth as a means to mitigate poverty and unemployment. Industrial development promotes higher capital formation; raises wage incomes to higher levels; and absorbs surplus workforce, bottled up in rural areas, to industry. To realize these benefits and hasten up the socio-economic changes, industrial development has been accorded as top priority by the State government.

Rajasthan, the largest (area-wise) state in India, is located in the north-western part of the subcontinent. It borders six major states in the northern, western and central parts of India. Rajasthan is a natural corridor between the wealthy northern and the prosperous western states, making it an important trade and commerce centre.

Rajasthan is the largest producer of oilseeds, seed spices and coarse cereals in India. Tremendous opportunities exist in the areas of organic and contract farming as well as in infrastructure developments related to agriculture.

Rajasthan accounts for 17.5 per cent of the total cement grade limestone reserves in India and is the largest cement producer with 21 major cement plants having a total capacity of 55 million tonnes per annum. Bureau of Investment Promotion (BIP) is a nodal agency of the Government of Rajasthan that facilitates investments in various sectors in the state. Rajasthan State Industrial Development and Investment Corporation (RIICO) is the sole agency in the state that develops land for industrial growth.

Industrial Development and economic growth of Rajasthan is shown below.



Source: Indian Brand Equity Foundation

2.4.1 Availability of Minerals

Marble is one of the minor minerals of the district and found in Tripura sundar Bhimkund, odhabasi, Vitthaldeo etc. in the reserves of marbles are estimated at around 190 million tones. The mineral production in Banswara district during the year 2010-11 has remained as given.

Name of the Mineral	Production in MT
Major Mineral	
Soapstone	12950
Manganese	7288
Minor Minerals	
Masonar	102900
Marble Block	46555
Limestone	13545
Sand	111200

2.4.2 Import vs. Indigenous Production

The member industries can go in multifold with import and export trade of any commodity. The proposed IP is specifically envisaged for promoting large or medium scale and hence there is a huge potential with respect to marketing trade of any commodity from the member industries.

2.4.3 Export Possibility

The indigenous production of such products will boost the opportunity to export. Nevertheless, as whole, India is ranking second only to China in the domain of International Export Business.

2.4.4 Domestic/Export Markets

The proposed IP will enable the member industries to acquire the quality Standards as per the requirement of International Standards. The infrastructure from RIICO will enable the member industries for getting quality product with trained manpower, available readily in the project location.

2.4.5 Employment Generation Direct and Indirect

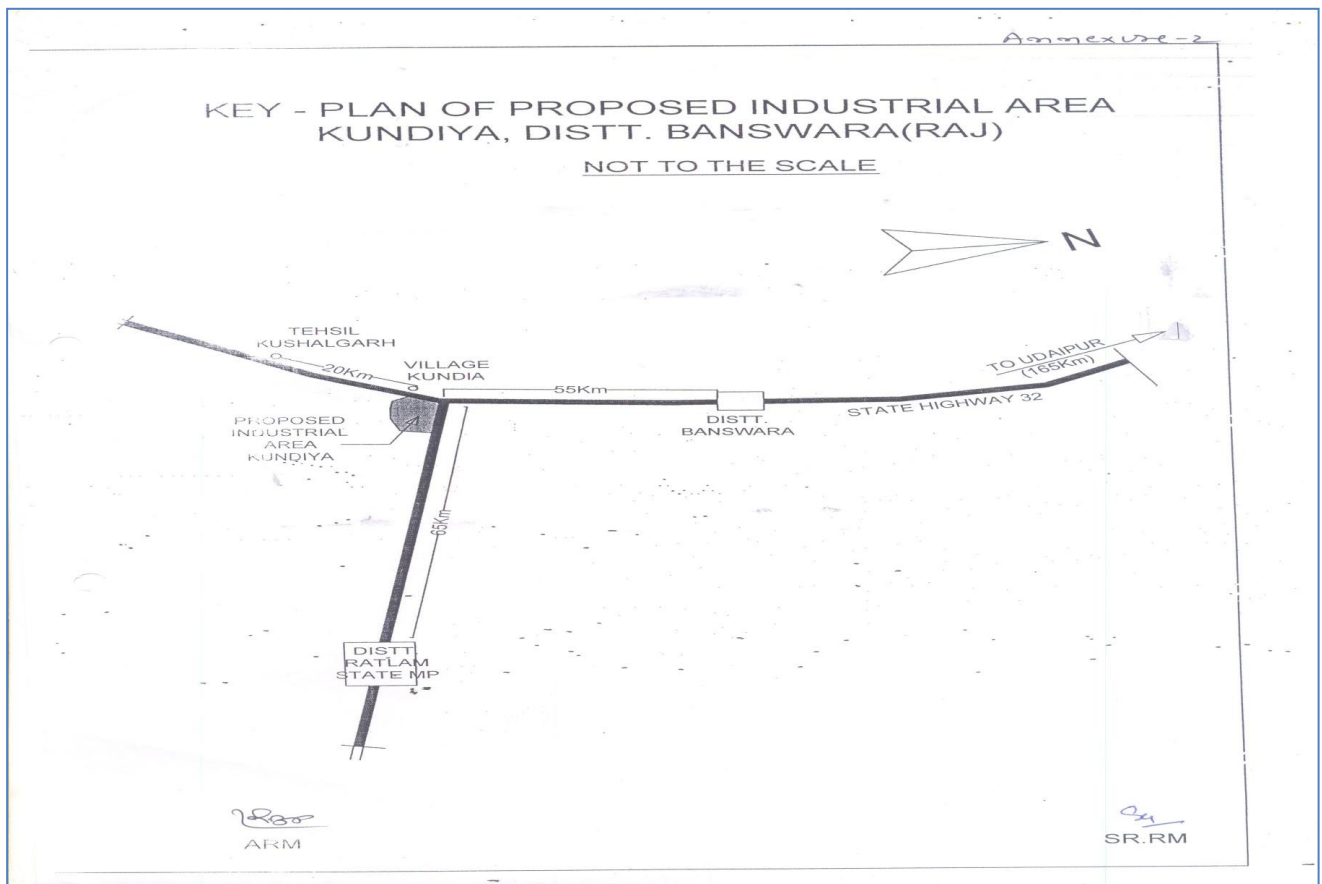
RIICO will ensure to keep the point of employment opportunities as prime criteria to allocate developed plots to industrial applicants. 115.80 Acres of industrial land can house a huge number of employment to the people based on skilled and unskilled. In the absence of details on member industries, it is difficult to assess the employment generation. However, RIICO envisions creating employment opportunities for not less than 7000 peoples of varied qualification and competence, directly in the proposed IP. Nevertheless, the proposed IP will also enable at least another 7000 peoples to have some means of employment indirectly to support the activities of the member industries.

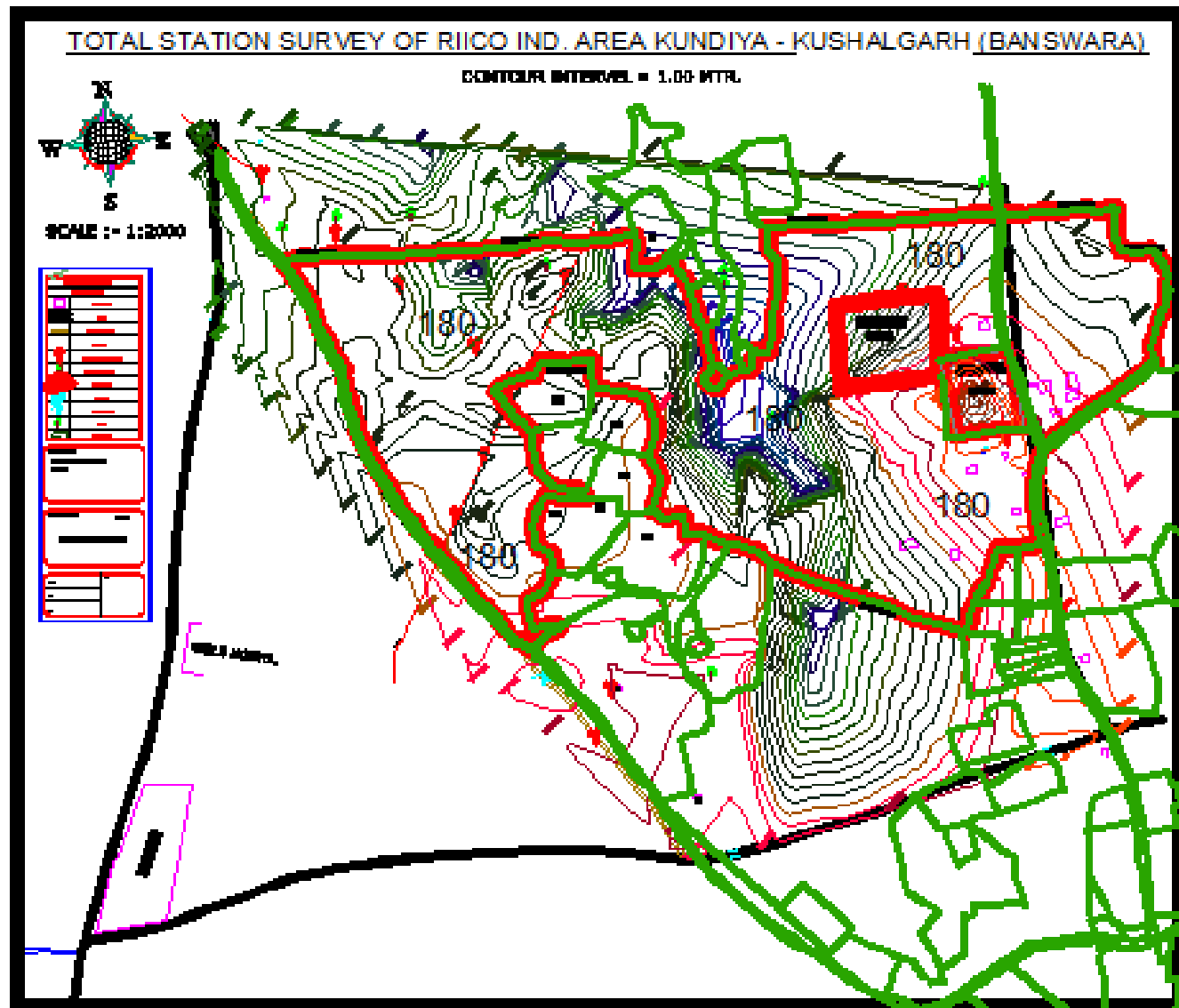
3. Project Description

3.1 Type of Project Including Interlinked and Interdependent

Rajasthan State Industrial Development and Investment Corporation Limited (RIICO), the project proponent, is Rajasthan State Government agency mandated with the development of land including supportive infrastructure facilities and their maintenance for large, medium and small scale industrial enterprises for sustained industrial growth in the State. In its endeavor it has developed and maintaining so far 321 IA/IE/SEZ.

3.2 Location and Project Layout





3.3 Details of Alternate Sites Considered

No alternate sites are considered for the development of the industrial area. . The proposed site based in Kundiya is selected based on the environmental factors and also the Economic consideration, the industrial area also shares the boundary with Madhya Pradesh which can supplement the economic growth of the Rajasthan and also the country. Some of the Site Photographs are shown in **Annexure 2**

3.4 Size or Magnitude of Operation

The proposed industrial area is establishing in 115.80 Acres. The state government of rajasthan has allotted the land measuring Khasra No 180 at village Kundiya for industrial development to RIICO.

3.5 Resource Optimization/ Recycling and Reuse in the Project

The new & creative approach to enable less waste intensive production is based on different techniques will be adopted by regular up gradation of process technology. These techniques are as hereunder.

Source Reduction

Under this category there are 5 techniques of Cleaner Production – Energy Efficient (CP-EE) are briefly discussed below:

- a) **Good Housekeeping:** Systems to prevent leakages & spillages through preventive maintenance schedules and routine equipment inspections. Proper working instructions, supervision and regular training of workforce would facilitate proper housekeeping.
 - b) **Input Material change** – Substitution of input materials by eco-friendly (non-toxic or less toxic than existing and renewable) material preferably having longer service time. Better Process Control Modifications of the working procedures, machine-operating instructions and process record-keeping in order to run the processes at higher efficiency and with lower waste generation and emissions.
 - c) **Equipment Modification** – Modification of existing producing equipment and utilities, addition of measuring and controlling devices, in order to run the processes at higher efficiency and lower waste and emission generation rates.
1. **Technology Change** – Replacement of the technology, processing sequence and / or synthesis pathway in order to minimize waste and emission generation during production.

d) Recycling

- **On-site Recovery and Reuse** – Reuse of waste materials in the same process or for another useful application within the industry.
- **Production of useful By-Product** – Modification of the waste generation process in order to transform the waste material into a material that can be reused or recycled for another application within or outside the company.

e) Product Modification- Characteristics of the product can be modified to minimize the environmental impacts of its production or those of the product itself during or after its use (disposal).

3.5.1 Benefits of Adopting Cleaner Production and Technology

The benefits of integrating CP -EE are as follows:

Structured approach for long-term viability of EE: EE improvement Programs alone have often been unsustainable because they lacked well-structured CP methodology for addressing together energy and environment issues. This has been compounded by a lack of professionals with the multi-skills needed to integrate energy management with other environmental issues. Incorporating EE into the well-established and structured CP approach would help to ensure the long-term viability of EE measures.

Global business mandates, Conventions and Protocols: Global business mandates, conventions and protocols expressing international concern for resource conservation, energy and environment Stand-alone CP or EE measures not always attractive: CP or EE measures not always attractive: CP solutions are not attractive if resources are low priced or subsidized. By combining it with energy efficiency, more attractive solutions can be proposed. Alternately, CP-EE may enhance the attractiveness of reducing energy consumption in case of low energy costs.

Other benefits of CP-EE

- Conservation of Raw Material and Energy
- Lower Costs
- Improved Environment
- Better compliance with environmental regulations
- Better working environment
- Quality improvement

- Improved efficiency / productivity
- Better access to finances
- Market requirements
- Public Image

3.5.2 Availability of Water and Energy

The source of water supply to the industrial area will be allotted based on the CGWA guidelines for evaluation of the proposals for groundwater extraction. The power required for the industries will be fetched from Japur DISCOM, Jaipur Vidyut Vitran Nigam Limited.

3.5.3 Schematic Representation of the Feasibility Drawing for EIA Purpose

For development of Industrial area in Kundiya, site screening, pre-feasibility report, environmental impact assessment (EIA) and environmental management plan (EMP) studies, etc for obtaining environmental clearance and consent for establishment from statutory authorities.

Stage 1

- Zoning Plan indicating type of industries which can be established considering the site location and market potential.

Stage 2

- Submission of Form-1, Prefeasibility report, draft TOR for appraisal to concerned authority (MOEF).

Stage 3

- Submission of EIA report as per approved TOR by concerned authority (MOEF)

Stage 4

- Submission of CFE application to Rajasthan State Pollution Control Board

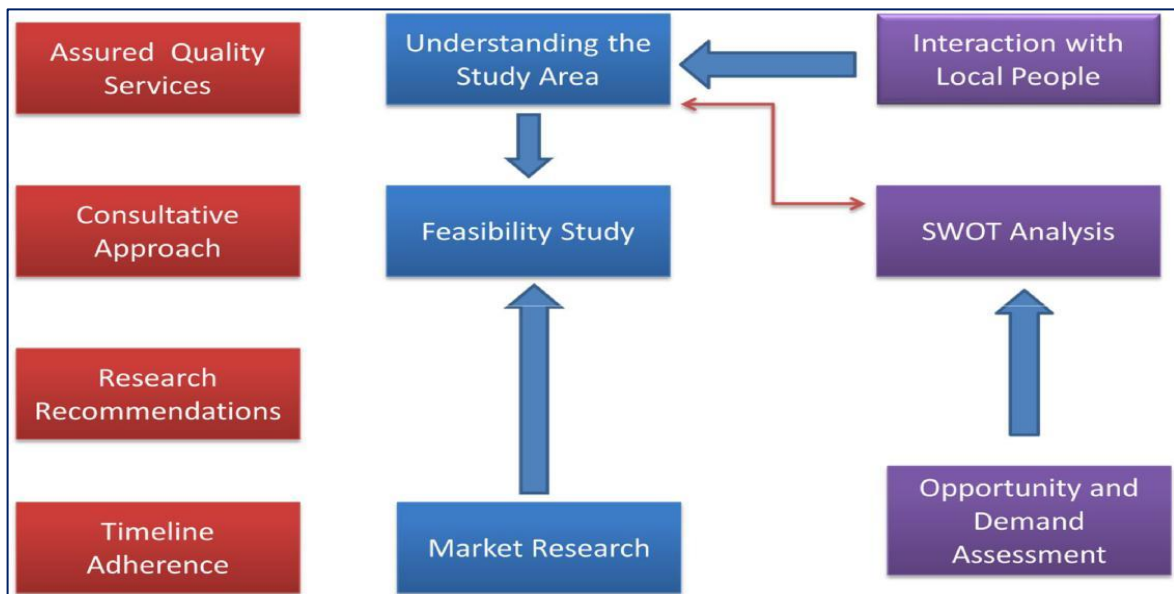
For Stage 1 Activity Zoning Plan preparation report consists of the following

- Location
- Site Extent
- Topography
- Site suitability and criteria for selection of proposed site and examination of alternative sites.
- Market potential and demand assessment study for sector of industries to be established.
- Existing Site Infrastructure Including;

- ❖ Topography
- ❖ Drainage
- ❖ Mineral Data of the Site

- Geo Technical Information of the Site.
- Availability of;
 - ❖ Water Supply
 - ❖ Power Supply
 - ❖ Wastewater Management System
 - ❖ Presence of Allied Social Infrastructure
 - ❖ Drainage System
 - ❖ Approach Roads

3.5.4 Approach of the Assignment



The Methodology of the Assignment can be classified into four key Modules;

- Module I: Site Visit & Data Collection
- Module II: Market Research & Opportunity Assessment
- Module III: Preparation of Master Plan & Product Mix Derivation
- Module IV: Financial Feasibility

Module I: *site visit and data collection*

Activity 1: Site Visit and Site Survey

This takes into account the natural, geographical, environmental and related features of the project site:

- Hinterland connectivity (*Road, Rail, Sea and Air*)
- Existing level of Industrial area related to infrastructure requirement (*Water Supply, Power, Telecom, Roads, etc.*)
- Topographical conditions and Drainage
- Land use pattern and surrounding features
- Habitat in surrounding areas along with Social Infrastructure in the region
- Social Issues
- Environmental Issues

Module II: *Market Research and Opportunity Assessment*

Activity 2: Situational Analysis at National and Regional Level: Assessment of potential

Industrial segment in the National and at regional level with reference to Geographical connectivity & Advantage, Government Support and Policies

Activity 3: Market Assessment & Benchmarking Study (India & Rajasthan):

Assessment of Supply scenario of the National market

- Growth Trend
- Primary destination of products
- National Production, Domestic Consumption, Efficiency and Export scenario
- Study of similar Estates & Industrial areas Projects and Best Practices
- Market Scenario for services being offered by the client mainly from the Primary, Secondary & Tertiary Catchments.

Activity 4: Trends and Supply Scenario of Industry: Study of growth trend of key industries and present status of industrial estates, Parks etc. as well as Infrastructure availability, assessing the opportunity/Activity Mix, etc.

Activity 5: Identification of Target Sectors & Markets: Location advantages illustrated in the preceding task to determine which sectors/sub sectors of Industry are best suited for the proposed Industrial area.

Activity 6: Industry Profiling and Demand Assessment: Evaluation of each sector that has been considered and within each sector focus will be on the industries which have good domestic growth potential, excellent export prospects and area compatibility. The Consulting Team shall estimate demand for the key industry sectors, work force requirement, logistics and product distribution and other key services.

Activity 7: Site Infrastructure and Resource Requirements: Based on the outcome of the demand assessment, the infrastructure requirement and workforce shall be assessed for the proposed Industrial area at Kundiya, Rajasthan.

Module III: Preparation of Master Plan and Product Mix Derivation:

Activity 8: Land Use Assessment and Bye - Laws Analysis

Study of present land use, Master Plan, Building Guidelines and other norms and standards in order to

- Estimate the requirement of land for various land uses including the plot sizes for various purposes.
- Estimate areas for common facilities and specialized infrastructure for the proposed Industrial area.

Activity 9: Preparation of Conceptual Master Plan/Layout

The Conceptual layout for the proposed Industrial area shall cover the
Following:

- Land use Demarcation – Industrial, Commercial, Road, Utilities, Open & Greens

- Activity Zoning Plan – Demarcation of Industrial and Non Industrial Areas with area statements
- Linkage - external Infrastructure
- Circulation pattern – vehicular and pedestrian
- Location of Utility areas
- Location of major land uses and detailed area statement

Activity 10: Conceptualization Study Report & Conceptual Master Plan shall be prepared

Activity 11: Physical Infrastructure Estimations:

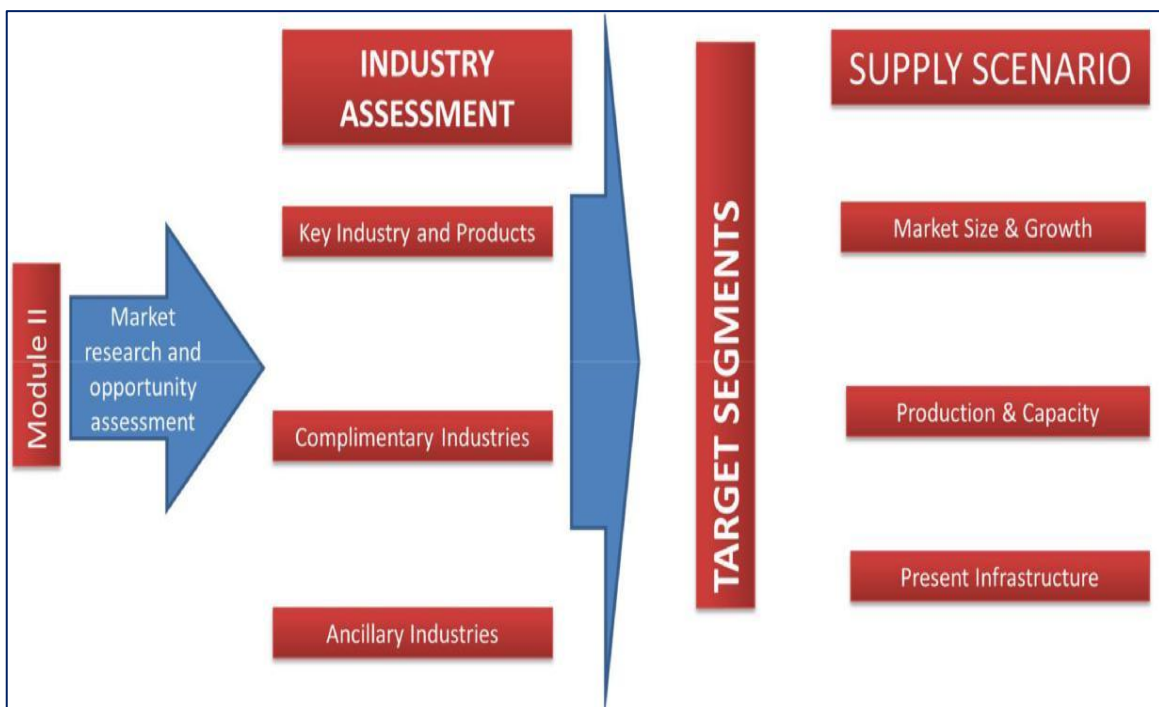
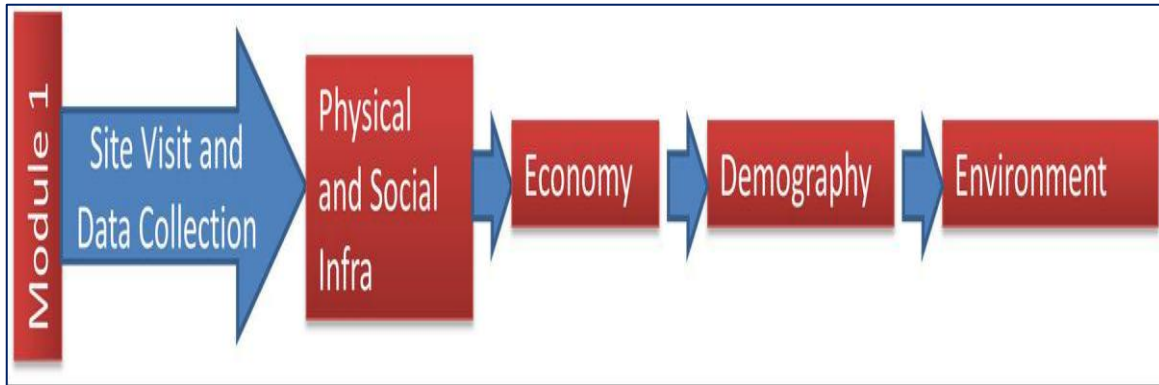
Post finalization of the area required for various processing units, common facilities, customs buildings and other specialized infrastructure with client.

Preliminary Infrastructure estimations shall be done for the following:

- Water Supply
- Transport Network
- Fire Protection Services
- Wastewater Collection, Treatment and Disposal
- Storm Water Drainage
- Integrated Solid Waste Management
- Power Supply and Electrification
- Street Lighting

Activity 13: Marketing Strategy:

The proposed Industrial area will be a success only if it is able to attract large domestic and international players to set up units within the zone. Essentially it would be targeted at attracting the large Indian companies and foreign investors.



Annexure 2



4. Site Analysis

4.1 Connectivity

The site is well connected to State Highway 39 Bajna Khushalgah, which intersects the National Highway 113. The industrial area is close to the boundary with Madhya Pradesh with an approximate distance of 4.5 Km towards NE. the nearest railway station is Ratlam 47.2 Km E.



4.2 Land Form, Land Use and Land Ownership

The total area of the industrial area is 115.80 Acres which is owned by RIICO. The state government of Rajasthan has allotted the land measuring Khasra No 180 at village Kundiya for industrial development to RIICO.

4.3 Topography Along with Map

The study area 10 km radius from the site is prepared by Survey of India TOPO sheets F43C12 and F43C11 published in year 2012. The elevation pattern of the site varies from 392-426 m from north to south and 412-415 m from west to east. Topo map of the study area is given in **Annexure 3**.

4.4 Existing Land Use Pattern

The existing land use is a barren land and there is no notified forest area near the project as well as impact area of 5 Km from the project site. No notified river or water body is available in the project impact area. However, there are no significant ponds /lakes and available small ponds are largely dry in most of the years as there is no dedicated Catchment area and feed channels. All existing water courses as lake and Ponds are directly rain-fed without any feed and exit channels. The Hydro geological Map of the Project location is under preparation and will be evaluated in the Environmental Impact Assessment studies.

4.5 Existing Infrastructure

The proposed industrial area is a Greenfield project. The required infrastructure for the facility will be developed after obtaining Environmental Clearance from competent Authority.

4.6 Soil Classification

The soils of the district fall under the following broad categories Black soil and red soil. Black soil is found predominantly in the district mostly in northern, southern, central and eastern parts. Red soil is mostly found in western portion of the district from north to south.

4.7 Climatic Data from Secondary Sources

The district has a climate which is milder than that in the desert regions in further north and north-west.

- Maximum temperature is 45 degrees Celsius to 46 degrees Celsius.
- Minimum temperature is 10 degrees Celsius to 20 degrees Celsius
- Normal annual rainfall is 922.4 mm

4.8 Social Infrastructure Available

All infrastructure facilities such as education, health facilities and other social facilities are adequate at district headquarter.

5. Planning Brief

5.1 Planning Concept

The need for the environmental administration of India to become active in the field of environmental planning is founded in the Environment (Protection) Act, 1986, which authorizes the Central and State Government " to have the power to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution. Since, the carrying capacity of the environment is not unlimited and some areas or ecosystems are more susceptible to adverse environmental impacts than others, the unplanned and haphazard location of industries might substantially increase the risk to the environment. Environmental planning is a proven tool for reducing the impacts from such risks. However, this tool has seldom been used in this country. Proper siting of newly planned industries and industrial estates is a strong pollution preventive instrument that ensures environmental soundness of the industrial development.

5.2 Zoning of Industries

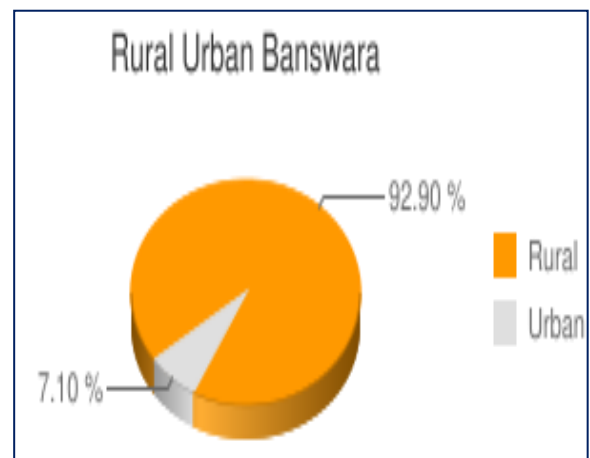
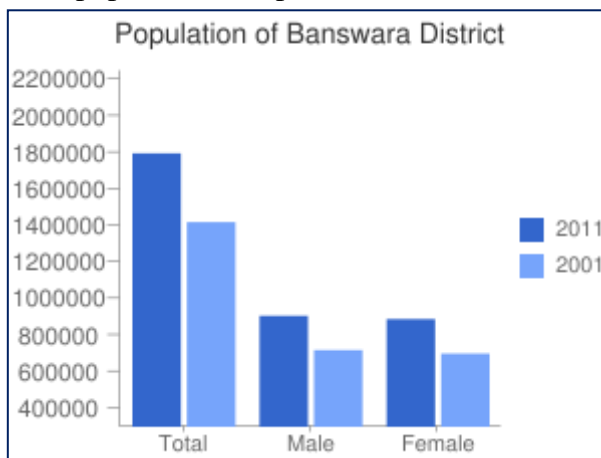
- Provides a ready - reckoner for best suitable site and relevant environmental information.
- Makes decision-making process simpler, faster, realistic, transparent and reliable.
- Provides a basis for incorporating environmental aspects into physical (land use) planning process that is lacking in the country.
- Helps in planning cost-effective pollution control measures and programs.
- Helps an entrepreneur in readily finding out the location best suited to site an industry thereby saving time, efforts, investment and risk instead of heading for an unknown site, conducting environmental impact assessment and awaiting clearance by the regulatory authorities.
- Helps develop infrastructure facilities, such as roads, water supply, electricity etc. and provide common waste treatment and disposal facilities.
- Helps check additional pollution in the areas already over-stressed with pollution;
- Ensures that pollution potential of an industry is made compatible with the local conditions of the site.

- Ensures that an industry, with high pollution potential desiring to locate in a high risk area, will have to adopt clean technologies for manufacturing process so as to prevent generation of wastes/pollution thereby making it compatible with the receiving environment.
- Helps in increasing awareness of the public on type of industries and nature of pollution anticipated in their neighborhood well in advance.
- Helps achieve sustainable development.

5.3 Population Projection

An official Census 2011 detail of Banswara, a district of Rajasthan has been released by Directorate of Census Operations in Rajasthan. Enumeration of key persons was also done by census officials in Banswara District of Rajasthan. In 2011, Banswara had population of 1,797,485 of which male and female were 907,754 and 889,731 respectively. In 2001 census, Banswara had a population of 1,420,601 of which males were 719,997 and remaining 700,604 were females. Banswara District population constituted 2.62 percent of total Maharashtra population. In 2001 census, this figure for Banswara District was at 2.51 percent of Maharashtra population.

There was change of 26.53 percent in the population compared to population as per 2001. In the previous census of India 2001, Banswara District recorded increase of 27.61 percent to its population compared to 1991.



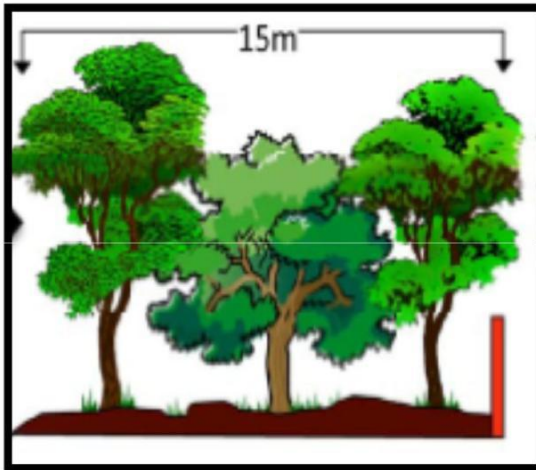
5.4 Land Use Planning

70 % of the land will be utilised for the development of the industries The balance will be utilized for development of roads, water storage, Storm Water Drainage, Green Belt development.

5.4.1 Greenbelt

The common green spaces have been planned in conjunction with the designated facility areas and green connecting corridors have been planned to create pedestrian connectivity across site. The green belt/ buffer along the main spine and along the industrial boundary will be there to reduce the traffic noise and industrial noise to neighboring areas. The individual plots shall have their own green areas, as per guidelines.

Greenbelt along the Boundary



Greenbelt under High Tension Cables



5.5 Infrastructure Demand

The demand of infrastructure is assumed for the responsibility RIICO in the following requirements.

- Industrial plots (desired but varied sizes)
- Roads/Service roads
- Electrical Grid
- Telecommunication
- Water source, storage & supply

RIICO is also committed to provide certain other social infrastructure for generate goodwill among the workers and the population in the project impact area of 5 km radius, around the project site.

5.6 Amenities/Facilities

Recognizing the potential of enhanced living, the Master Plan of the Industrial area provides amenities, utilities and common facilities. The locations of these have been carefully selected so that they serve the entire Industrial area.

Each plot in the Industrial area can access at least one facility/ amenity within 500m radius providing easy accessibility (Comfortable Walking Distance). Common facilities for medical assistance, fire, police, emergency etc. are part of the proposed master plan to cater to immediate need within the Industrial area.

The workers of the Industrial area will be spending two third of their 24 hour day time within Industrial area, therefore it is very important to provide amenities for them, these amenities should be for short term and long term benefits.

The short term benefits include areas such as canteen; recreational spaces etc. in terms of long term benefits areas such as training centers, skill development and other educational institutes play a significant role in increasing worker satisfaction and hence increased productivity. The functioning of the Industrial area also includes administrative block, post office, police station, fire station. The area is allocated in land use planning so that these important structures are not compromised in later stage. Keeping in mind a commercial center is allocated as dormitories for workers and emergency medical centre with 10 bed hospital has been planned for workers; so that the population of the nearby villages shall be benefit the same.

6. Proposed Infrastructure

6.1 Industrial Area (Processing Area)

The proposed Industrial area is designed based on the market value potential and demand assessment study for sector of industries to be established in the Industrial area. The categorization of industries by state pollution control board as Red Category, Orange Category and Green Category are implemented in the Industrial area.

6.2 Greenbelt

Development of green belt is conceived at the beginning; in total 33 % of the total area will be covered under greenbelt (at park level and within individual industries). Around 2500 plants/ha will be planted using local species. The distance between two plants will be kept minimum for thick green belt, regular maintenance of green belt will be done, dead plants will be replaced with new one during rainy season.

6.3 Social Infrastructure

The proposed Industrial area shall be made available with all infrastructures that required for industrial purpose and also for the locals where they can be benefitted from the infrastructure of the Industrial area. The proposed infrastructure for the Industrial area involves an establishment of Banks, Post Office, Telephone Exchange, Centralized Canteen, Administration Building, Emergency Medical Centre, Guest Rooms, Fire Station, Weight Bridge, Dormitories for Truck Drivers, Bus Terminal, Truck Terminal.

6.4 Drinking Water Management

The source of water supply to the industrial area will be allotted based on the CGWA guidelines for evaluation of the proposals for groundwater extraction.

6.5 Sewerage System

Sewerage system is designed for individual Industries according to the elevation and contour profile. Sewage water generated from process are transferred through a pipe line system and each industry shall have its own treatment facilities. The treated water will use for the green belt and flushing purposes.

6.6 Industrial Waste Management

Industrial waste management is classified as hazardous and non-hazardous. The Hazardous wastes will be treated as per Hazardous Wastes (Management and Handling) Rules, 2016. Electronic waste will be processed as per E-waste Management and Handling Rules 2016

The Batteries (Management and Handling) Rules, 2016. Bio Medical Waste will be processed as per Bio-Medical Waste (Management and Handling) (Amendment) Rules, 2016 and its subsequent amendments.

6.7 Power Requirement Source and Supply

The power required for the industries will be fetched from Jaipur DISCOM, Jaipur Vidyut Vitran Nigam Limited.

7. Rehabilitation and Resettlement Plan

The proposed industrial area envisages some R&R plan, the industrial area is solely owned by RIICO have some land Oustees and Home Oustees. Suitable compensation package will be given by RIICO for procurement of the land.

8. Project Schedule and Cost Estimate

8.1 Likely Start of Construction and Completion

The factors which are responsible for timely implementation of the project are:

- Arrangement of proper finance for the project.
- Finalization of layout of the proposed plant.
- Design of utilities and services.
- Placement of orders for plant and machinery.
- Arrangements for Govt. sanctions and supply of power.
- Recruitment of personnel.

As per an initial estimate around eight (8) months will be needed for implementation of the project from the starting date i.e. from the date of receiving all the statutory clearances for starting the project.

8.2 Estimated Project Cost

The Capital costs have been worked out on the basis of prices prevailing today and do not include any provision for future escalation in costs during implementation period. As per initial estimate, the cost of the project works out to around Rs. 30 Crores. After examining the Environmental feasibility and Commercial & financial feasibility, it may be inferred that the project will have a positive feasibility.

9. Analysis of Proposal – Final Recommendations.

The proposed project is expected to bring significant socio-economic and environmental benefits both at local level as listed below:

Social Infrastructure:

- Social awareness programs will be improved by the local authority such as sanitation and hygiene, HIV Prevention Program.
- Adult education and female education program is planned to the illiterate adults and backward females of the villages in the project surrounding area

Employment Potential

The project is going to create some employment. Due to this project activity, some persons in the project area will be recruited as skilled and semi-skilled workers by the company as per its policy. Therefore, some employment and income are likely to be generated for the local people. So, the project will contribute in a positive manner towards direct employment in the project area.

Benefits to the Region

The company will supply its product to the domestic market which is likely to improve the regional economy.

Peripheral Developments

RIICO intends to take up developmental work in the periphery area. The activities that have been considered include the following:

- Support existing schools for development of education in the area.
- Help in imparting vocational training to local eligible youth.
- Provide health facilities by way of medical checkup, by holding medical camps etc. in the neighborhood.