Commerce and Industries Department

Development of Pharmaceutical SEZ/Park at Yadgir

Pre-feasibility report

April 2012
## Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>API</td>
<td>Active Pharmaceutical Ingridient</td>
</tr>
<tr>
<td>BOO</td>
<td>Build, Operate, Own</td>
</tr>
<tr>
<td>CEDOK</td>
<td>Centre for Entrepreneurship Development of Karnataka (CEDOK)</td>
</tr>
<tr>
<td>CETP</td>
<td>Common Effluent Treatment Plant</td>
</tr>
<tr>
<td>CRIS</td>
<td>CRISIL Risk and Infrastructure Solutions Limited</td>
</tr>
<tr>
<td>CRISIL</td>
<td>Credit Rating and Information Services India Limited</td>
</tr>
<tr>
<td>DSCR</td>
<td>Debt Service Coverage Ratio</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>EOI</td>
<td>Expression of Interest</td>
</tr>
<tr>
<td>FDA</td>
<td>Federal Drug Authority</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GTTC</td>
<td>Government Tool Room and Training Centre</td>
</tr>
<tr>
<td>IDC</td>
<td>Interest During Construction</td>
</tr>
<tr>
<td>IRR</td>
<td>Internal Rate of Return</td>
</tr>
<tr>
<td>ISO</td>
<td>International Standards Organization</td>
</tr>
<tr>
<td>JSW</td>
<td>Jindal South-West</td>
</tr>
<tr>
<td>KCTU</td>
<td>Karnataka Council for Technological Upgradation</td>
</tr>
<tr>
<td>KDPMA</td>
<td>Karnataka Drugs and Pharmaceuticals Manufacturers Association</td>
</tr>
<tr>
<td>KIAD</td>
<td>Karnataka Industrial Areas Development</td>
</tr>
<tr>
<td>KIADB</td>
<td>Karnataka Industrial Areas Development Board</td>
</tr>
<tr>
<td>KILT</td>
<td>Karnataka Institute of Leather Technology</td>
</tr>
<tr>
<td>KSCCF</td>
<td>Karnataka State Coir Co-operatives Federation</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>KSCDC</td>
<td>Karnataka State Coir Development Corporation</td>
</tr>
<tr>
<td>KSFC</td>
<td>Karnataka State Financial Corporation</td>
</tr>
<tr>
<td>KSHDC</td>
<td>Karnataka State Handicrafts Development Corporation</td>
</tr>
<tr>
<td>KSIIDC</td>
<td>Karnataka State Industrial Investment Development Corporation</td>
</tr>
<tr>
<td>KSSIDC</td>
<td>Karnataka State Small Industries Development Corporation</td>
</tr>
<tr>
<td>KUM</td>
<td>Karnataka Udyog Mitra</td>
</tr>
<tr>
<td>KVIB</td>
<td>Karnataka State Khadi and Village Industries Board</td>
</tr>
<tr>
<td>LIDKAR</td>
<td>Leather Industries Development Corporation of Karnataka</td>
</tr>
<tr>
<td>NDD</td>
<td>New Drug Development (process)</td>
</tr>
<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
</tr>
<tr>
<td>PSP</td>
<td>Private Sector Partner</td>
</tr>
<tr>
<td>RFP</td>
<td>Request for Proposals</td>
</tr>
<tr>
<td>RFQ</td>
<td>Request for Qualifications</td>
</tr>
<tr>
<td>SEZ</td>
<td>Special Economic Zone</td>
</tr>
<tr>
<td>SHLCC</td>
<td>State High Level Clearance Committee</td>
</tr>
<tr>
<td>SIA</td>
<td>Social Impact Assessment</td>
</tr>
<tr>
<td>SKDC</td>
<td>Suvarna Karnataka Development Corridor (project)</td>
</tr>
<tr>
<td>SPC</td>
<td>Special Purpose Company</td>
</tr>
<tr>
<td>SPV</td>
<td>Special Purpose Vehicle</td>
</tr>
<tr>
<td>TECSOK</td>
<td>Technical Consultancy Services Organisation of Karnataka</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollars</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
</tr>
<tr>
<td>VGF</td>
<td>Viability Gap Funding</td>
</tr>
<tr>
<td>VITC</td>
<td>Visvesvaraya Industrial Trade Centre</td>
</tr>
<tr>
<td>Acronym</td>
<td>Definition</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>WACC</td>
<td>Weighted Average Cost of Capital</td>
</tr>
</tbody>
</table>
Contents

1. Executive Summary ........................................................................................................... 1
2. Introduction ....................................................................................................................... 3
   2.1 Project Idea .................................................................................................................. 3
   2.2 Approach & methodology .......................................................................................... 4
   2.3 Study of earlier reports in this sector in the relevant area ........................................... 4
3. Sector profile .................................................................................................................... 5
   3.1 Department of Industries and Commerce ................................................................... 5
   3.2 Industry outlook .......................................................................................................... 5
   3.3 Key issues ................................................................................................................... 6
4. Project .............................................................................................................................. 8
   4.1 Description of the Project .......................................................................................... 8
   4.2 Components of the Project ....................................................................................... 8
   4.3 Description of the Site .............................................................................................. 8
   4.4 Connectivity .............................................................................................................. 9
      4.4.1 Economic profile and regional strengths ......................................................... 9
   4.5 Development Needs, Public needs & Planning Considerations .................................. 10
   4.6 Best Case Studies for similar projects in India/world ............................................... 10
      4.6.1 The Tefen Model .............................................................................................. 10
      4.6.2 PhaEZ – Pharmaceutical SEZ in Gujarat ...................................................... 11
5. Market Assessment ......................................................................................................... 13
   5.1.1 Innovation will be a key growth driver ............................................................... 13
   5.2 Biopharmaceuticals holds immense potential for Indian pharma players ............... 14
   5.3 Opportunities & Demand projections .................................................................... 14
      5.3.1 Buoyant manufacturing opportunities for Indian pharmaceutical players ........ 14
6. Project financials .............................................................................................................. 15
   6.1 Cost Estimation ......................................................................................................... 15
   6.2 Revenue streams ....................................................................................................... 16
   6.3 Viability assessment ................................................................................................. 16
   6.4 Funding available under various schemes ............................................................... 17
   6.5 Issues for C & I’s consideration ............................................................................... 17
      6.5.1 Pharmaceutical v. multi-product ................................................................. 17
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.5.2</td>
<td>Single Phase or Multiple Phase</td>
<td>17</td>
</tr>
<tr>
<td>6.6</td>
<td>Discussions on the report</td>
<td>18</td>
</tr>
<tr>
<td>7.</td>
<td>Regulatory &amp; Legal Framework</td>
<td>19</td>
</tr>
<tr>
<td>7.1</td>
<td>Applicable laws &amp; Act and Legal Cover for the project</td>
<td>19</td>
</tr>
<tr>
<td>7.2</td>
<td>Legal &amp; Regulatory framework</td>
<td>19</td>
</tr>
<tr>
<td>7.2.1</td>
<td>Benefits and Incentives under the SEZ Act</td>
<td>19</td>
</tr>
<tr>
<td>7.2.2</td>
<td>Benefits and incentives under the State SEZ Policy, 2009</td>
<td>19</td>
</tr>
<tr>
<td>7.3</td>
<td>Key Issues</td>
<td>20</td>
</tr>
<tr>
<td>7.3.1</td>
<td>Approval from the Board under the SEZ Act</td>
<td>20</td>
</tr>
<tr>
<td>8.</td>
<td>Indicative environmental &amp; social impacts</td>
<td>21</td>
</tr>
<tr>
<td>8.1</td>
<td>Environmental impacts</td>
<td>21</td>
</tr>
<tr>
<td>8.2</td>
<td>Social impacts</td>
<td>21</td>
</tr>
<tr>
<td>8.3</td>
<td>Mitigation measures</td>
<td>21</td>
</tr>
<tr>
<td>9.</td>
<td>Operating Framework</td>
<td>22</td>
</tr>
<tr>
<td>9.1</td>
<td>Risks and mitigation</td>
<td>22</td>
</tr>
<tr>
<td>9.2</td>
<td>Indicative Project Structure</td>
<td>23</td>
</tr>
<tr>
<td>9.2.1</td>
<td>Key issues in project structuring</td>
<td>23</td>
</tr>
<tr>
<td>10.</td>
<td>Way Ahead</td>
<td>28</td>
</tr>
<tr>
<td>10.1</td>
<td>Project Development Framework</td>
<td>28</td>
</tr>
<tr>
<td>10.2</td>
<td>Procurement Plan</td>
<td>29</td>
</tr>
<tr>
<td>11.</td>
<td>Annexure 1 - Agencies under the Commerce and Industries Department</td>
<td>30</td>
</tr>
<tr>
<td>11.1</td>
<td>Directorate of Industries and Commerce</td>
<td>30</td>
</tr>
<tr>
<td>11.2</td>
<td>District Industries Centres</td>
<td>30</td>
</tr>
<tr>
<td>11.3</td>
<td>Industrial wing of Zilla Panchayats</td>
<td>30</td>
</tr>
<tr>
<td>11.4</td>
<td>Boards and Corporations</td>
<td>31</td>
</tr>
<tr>
<td>11.5</td>
<td>Karnataka State Industrial and Infrastructure Development Corporation (KSIIDC)</td>
<td>32</td>
</tr>
<tr>
<td>11.6</td>
<td>Karnataka Industrial Areas Development Board (KIADB)</td>
<td>32</td>
</tr>
<tr>
<td>11.7</td>
<td>Karnataka Small Scale Industrial Development Corporation (KSSIDC)</td>
<td>33</td>
</tr>
</tbody>
</table>
List of Figures

Figure 3-1: Investment approvals by SHLCC and SLSWCC in last 4 years ................................................... 6
Figure 9-1: Recommended structure for the pharma park........................................................................... 27
Figure 10-1: Project development framework........................................................................................... 28
1. Executive Summary

Karnataka is at the forefront of industrialization in the country. Today, the state is one of the most attractive locations for future investments. In order to consolidate its leadership position, Karnataka now intends to provide a major thrust to infrastructure development through increased public private partnerships (PPP). In pursuance of this objective, CRISIL Risk and Infrastructure Solutions Limited has been mandated to work closely with the Commerce and Industries Department in identifying and mainstreaming PPP projects. The C & I Department has identified five priority projects one of which is the development of Pharmaceutical Park/SEZ in the Yadgir region. The KIADB has acquired approximately 3000 acres of land in the region at Kadechur and Badihalla.

The Pharmaceutical Park/SEZ will be an integrated industrial facility and would provide a demonstration of achieving a fine balance between industrial and holistic development. The proposed project would derive from the success of the integrated industrial development models (The Tefen model, please see section on case studies) as well as from other similar projects that have been attempted in the country (PhaSEZ of Cadila Pharmaceuticals Limited in Gujarat) and would be an ideal location to work and live.

The proposed project will have the following components:

- Industrial sheds, plots, flatted factories, Grade A/B buildings with large floor plates, built to suit facilities (based on requirements)
- Residential facilities
- Commercial facilities
- Education and training facilities
- Trunk and internal roads
- Water treatment & distribution facilities
- Drainage and sewerage facilities
- Power substation and distribution
- Solid waste and liquid effluent management facilities
- Data and telecom facilities

The report examines the possibility of developing such infrastructure on a public private partnership basis. The financial viability has been depicted as only a demonstration that industrial infrastructure development is possible and viable even for the private sector if the projects are structured well. The financial assessment observes that the developer can derive an 18% return on his investment in development of the industrial infrastructure.

Two issues that require the C & I Department's attention are:

- **Pharmaceutical Park/SEZ OR Multi-Product Industrial Park**: Given the extent of the area (3300 acres), whether this project should be deemed as a pharmaceutical park/sez or should be made a multi-product industrial park. Developing an area of this extent as a pharmaceutical park alone may result in lower off-take of spaces and might not render the project feasible for the private player. A multi-product industrial park will allow the developer to diversify his offerings and thereby increase the chances of off-take of spaces.

- **Single phase or Multiple phases**: Given the extent of the area, a private developer may not be keen to invest into such a large area at one go. It may be useful to offer land to the market in a phased manner.
The proposed project structure has been developed from a bottom up approach with due consideration for all concerns of the participating stakeholders. We have analysed the concerns that each of the stakeholders are likely to have and based on this analysis the project structure has been derived.

It is proposed that the project would be developed through a Special Purpose Company wherein 74% of the equity will be brought in by the developer and 26% of the equity will be brought in by KIADB in the form of land. The land will be transferred to the SPC who will then take up the development of the land. The KIADB will be able to gain a revenue share from the profits that the SPC will make.

If the project area is to be deemed as an SEZ, the first step will be to secure a SHLCC approval for the SEZ. While the approval is in place, a transaction advisor may be appointed for conducting a detailed techno-economic feasibility for the project. Upon completion of the study, the transaction advisor will conduct the bid process management and assist the selection of the private developer. Upon the selection of the developer, the approval under the SEZ Act may be sought. The Department will have to make a decision on how best the approval under the central SEZ Act will be secured.

The procurement plan proposes that the appointment of the transaction advisor can be accomplished within a span of 7 weeks.
2. Introduction

The pharmaceutical sector in India has witnessed tremendous growth over the past few years. Both in formulations as well as in bulk drug manufacturing, the Indian market has shown a growth of over 10% consistently for the past few years. Both in terms of domestic markets as well as exports, the growth of pharmaceuticals has been impressive.

Indian pharmaceutical industry contributed 11.77% of India’s manufacturing GDP in the year 2008-09. Drugs, Pharmaceuticals and fine chemicals have been consistently fifth largest exported principal commodity in the country. This sector consistently provided positive trade balance which is only matched by apparels.

Karnataka currently houses roughly 3% of all formulation based entities and bulk drug manufacturing entities in the country. The state has been a front-runner in the bio-technology segment with over 60% of the bio-technology companies being located in the state.

2.1 Project Idea

The state of Karnataka has been able to attract investment in the pharmaceutical sector limitedly. The state today is home to only 3% of all formulation and bulk drug manufacturing units in the country. A bulk of these units is located in states like Maharashtra, Gujarat and Andhra Pradesh.

The state, while being a frontier in bio-technology space, is unable to boast of a similar feat in the formulation and bulk drug manufacturing space. Andhra Pradesh has been posing stiff competition and has been garnering a large share of investments in this sector.

The key factor for most investment decisions is the availability of land, or preferably serviced land for setting up operations. According to the Karnataka Drugs and Pharmaceuticals Manufacturers Association (KDPMA), the non-availability of serviced land is one of the key issues that have kept investments from coming into the state.

With the increasing land prices in and around Bangalore\(^1\), it is imperative that alternative locations where the cost of land is not prohibitive and where infrastructure can be developed with ease.

With these considerations in mind, it is proposed to develop a Pharmaceutical SEZ in Yadgir. The SEZ/park shall be spread over an area of 500 acres\(^2\). Yadgir proves to be an ideal location with plenty of land available and abundant natural resources, mainly water, being available.

---

\(^1\) Most of the pharmaceutical companies are set up in and around Bangalore with the exception of a few which have been set up in Hassan and Tumkur.

\(^2\) Phase 1 of development with further expansion to additional 500 acres possible
2.2 Approach & methodology

The approach and methodology adopted for the development of this concept note has been outlined in the diagram below.

2.3 Study of earlier reports in this sector in the relevant area

The Karnataka Industrial Areas Development Board (KIA) had floated a request for Expression of Interest (EOI) for development of a Pharmaceutical Special Economic Zone (SEZ) in Hassan. We have studied to the EOI to understand the structure of project and the manner in which the transaction was proposed.

Following are our observations on the same:

- The EOI was floated for the appointment of a co-developer
- The project was expected to be developed on a Plan, Design, Build, Finance, Operate, Manage and Maintain basis for a lease period of 20 years + with one further 20-year extension possible
- The design and planning of the SEZ was left to the developer
- The developer was also to be responsible for marketing and branding the Industrial Park/ SEZ in order to attract maximum investments into the district

However, the EOI did not evince enough interest among the prospective developer and eventually the project has been shelved. One of the reasons may be that the was silent on the manner in which KIADB would participate in the project. This is a critical aspect since the developer/co-developer and other relevant stakeholders like lenders and tenants would derive a lot of comfort if the KIADB would have a stake in the development process.

The other reason could be that the market conditions were not suitable enough for the development of the SEZ.

While developing the project structure for the current project, we have kept these considerations in mind.
3. Sector profile

3.1 Department of Industries and Commerce

The Department of Industries and Commerce acts as a catalyst for the overall development of the industrial sector through effective discharge of developmental and facilitation roles. With a view to promote investment and trade, the Department formulates and implements the Policies of the State, Identification of Sectoral Advantages of the State and Human resource development for sustainable and growth-oriented industrialization has been a crucial role of the Department. Facilitating the take off of infrastructure projects that boost the industrial growth has also been the Department’s forte. The Department helps enhance the competitiveness of domestic industry through modernization, technology upgradation and adoption of best practices. It also provides a forum for entrepreneurs and industrialists through their associations to represent their needs to the Government, which translates into Policies of the State.

Some of the crucial infrastructure projects facilitated by the Department include Growth Centers across the State, Export Promotion Industrial Parks, International Technology Park Ltd., Electronic city, Food and Agro-technology parks, Agro Export zones, Special Economic Zones, Bengaluru International Airport, etc.

The Department is able to reach out to the small businesses as well as Industrial Houses by a great degree of decentralization within the organizational structure. The Department functions through the Districts Industries Centers, various Boards Corporations and Special purpose vehicles. The implementation of Policies of the Government is done through various schemes and the implementation of these schemes is decentralized for faster delivery of services.

The Department has established the Single Window Mechanism for faster, single point clearances to be given to projects seeking infrastructure facilities/incentives/concessions and help in establishing industries and businesses in Karnataka. Karnataka Udyog Mitra is the nodal agency under the Single window set up.

The Department operates through several administrative units viz. the Directorate of Industries and Commerce at the state level, District Industries Centres at the district level, Industrial wings of the Zilla Panchayats and various Boards and Corporations. A brief on each of the wings of the department has been included in Annexure 1.

3.2 Industry outlook

Karnataka is considered as one of the most desired destinations for industrial investments in the country. The State has been able to adapt to the continually changing investment climate and has been well prepared to meet needs of the investors. Karnataka is also home to large public sector industrial undertakings, large privately owned industries like steel sugar, textiles etc., In recent times, Karnataka has emerged as the leader in IT & BT and knowledge based industrial sector, making rapid strides in IT & computer related industries and biotechnology with a strong research and development base. The State has a number of traditional cottage, handicrafts, micro enterprises like handlooms, power looms, silk weavers, khadi and village industries etc.,

The state, in pursuance of its investment solicitation agenda, organizes a Global Investors Meet (GIM) every 2 years which is a mechanism to reach out and solicit investments from across the world. The
last GIM was organized in 2010 and was a major success wherein MOUs worth Rs. 3.92 lakh crores were signed with 389 companies which would provide employment for 710000 people.

The investment proposals in Karnataka are handled by a two-fold mechanism. The State High Level Clearance Committee (SHLCC) approves projects worth more than Rs. 50 crores and is headed by the Honourable Chief Minister of the state. The State level Single Window Clearance Committee approves projects with investments between Rs. 3 crores to Rs. 50 crores and is headed by the Honourable Minister for Large & Medium Industries.

The SHLCC, in the last 3 years, accorded approvals for a total of 340 projects with a total investment of Rs. 577,000 crores. These projects would create employment for 1.2 million people.

The SLSWCC, in the last 3 years, accorded approvals for a total of 1112 projects with a total investment of Rs. 19898 crores. These projects would create employment for over 360,000 people.

**Figure 3-1: Investment approvals by SHLCC and SLSWCC in last 4 years**

It is evident that the state has been continuously attracting investments and is gradually begging to consolidate its position as a leader on the industrial landscape of the country.

### 3.3 Key issues

Since the Commerce and Industries Department operates through a host of agencies that are mandated to carry out various tasks specified in their business rules. This creates a complicated institutional framework where sometimes coordinating the activities of all the agencies becomes cumbersome and thereby agencies work in silos and the intra-agency communication does not occur.
Also, not all agencies of the C & I are accustomed to undertake projects on a PPP basis. Thus far, KSIIDC, KIADB and KSSIDC (only in a very limited manner) have attempted projects under the PPP mode with varying degrees of success. The institutional capacity and preparedness of the agencies for managing projects under the PPP mode is, at best, limited\(^3\). Capacity building of the agencies to successfully develop and manage PPP projects is a critical area that the Department should focus upon.

\(^3\) KSIIDC is the only agency that has successfully undertaken projects under the PPP mode. KIADB’s and KSSIDC’s attempts have met with limited success
4. Project

4.1 Description of the Project

The proposed project envisages developing a Pharmaceutical SEZ in Yadgir spread over an area of 500 acres in the 1st phase. The project will provide an ideal environment for pharmaceutical investments with serviced land being made available to potential investors willing to set up facilities in the SEZ.

The SEZ will be set up with private sector participation and will provide state of the art integrated infrastructure facilities for investors.

4.2 Components of the Project

The project will include the following components:

- Industrial sheds, industrial plots, flatted factories, Grade A/B buildings with large floor plates, built to suit facilities
- Residential facilities for industrial workers
- Trunk and internal roads
- Drainage and sewerage facilities
- Water treatment & distribution facilities
- Power substation and distribution
- Solid waste and liquid effluent management facilities
- Data and telecom facilities

4.3 Description of the Site

Located in the North East part of the State surrounded by Gulbarga in the North, Raichur in the South, Bijapur in the West and Hedal of AP in the East, Yadgir spreads across 3 Talukas namely Shahapur, Surpur and Yadgir. Yadgir is the district headquarters, and is 530 Km away from Bangalore. The district houses a population of 1,172,985 (2011 census).

The proposed site for the project is located in Kadechur and Badihala village which is approximately 38 kms from Yadgir city and is close to NH 51 with access roads from three different directions.

The discussions with filed officers of KIADB revealed that land for acquisition has been notified but compensation is yet to be paid out. We were also informed that land has been allotted to Bharat Forge Limited, Coca Cola and 35 Bulk Drug manufacturing units. Land is to be developed by KIADB once the compensation payments are settled.
4.4 Connectivity

- **Road:** State Highway 15 (Raichur-Bidar) passes by the site, and connects to Bijapur and Hyderabad. Important cities connected through buses from the city are Bangalore, Hubli, Dharavd, Belgum, Vasco da Gama, Hyderabad and Bellary.

- **Rail:** Yadgir city has its own railway station. It is one of the largest railway stations in the Hyderabad-Karnataka region. It has broad gauge railway which lies between Mumbai and Chennai. Yadgir is well connected to the Mumbai, Bangalore, Hyderabad, Chennai, Tirupati, Trivandrum, Nagercoil, Pune, Coimbatore, Kanyakumari, Salem Dharmavaram, Lokmanya Tilak and Solapur.

- **Air:** The closest airport is the International Airport at Hyderabad situated at a distance of 180kms. The district is soon to benefit from the airport proposed at Gulbarga, it’s neighbouring district.

- **Port:** The closest seaport is at Murmugoa at a distance of 520 kms.

4.4.1 Economic profile and regional strengths

Yadgir is predominantly an agricultural district. The vast stretch of fertile black soil of the district is known for bumper red gram and jawar crops. Recently rich uranium deposits have been found in the Gogi belt covering parts of Shahapur and Shorapur taluks. Uranium (processed) can be used for defence and power generation purpose.

Yadgir is home to 270 micro and small medium enterprises (MSME) with a total investment of 662.82 lakhs. These units generate a total employment of 1019 persons.

Amongst the existing Small and Medium scale industries, Core Green Sugars and Fuels Private Limited whose output is sugar cogeneration and ethanol is key player and have developed its facility in an area of 370.64 acres.

There are two industrial estates developed by KSSIDC in Shahapur and Shorapur taluks. The one at Shahpur is spread across 26 acres of land with 200 developed, 82 allotted and 8 vacant plots. The industrial estate at Shorapur stretches over 5 acres of land with 23 developed plots, with only 3 vacant plots. Majority of the units in these areas are auto repair and servicing units and agricultural equipment manufacturing units.

Provisions are made within the existing Industrial area at Mundargi (developed by KIADB) for major establishments that contribute and are envisaged to play a major role in the growth of Industrial economy of the district. The industrial area covers 22.5 acres of land housing 35 developed plots supporting 39 working units. Major units within the Mundargi industrial area are rice mills, engineering works units, hollow blocks units, steel fabrication units, etc.

The Yadgir district has several strengths in terms of location, connectivity, natural resources and above all availability of land.

The region is well connected by road and rail to metro cities like Mumbai, Chennai, Bangalore, Delhi and Hyderabad. There is already an industrial base which is also expanding gradually. The Yadgir region has close to 3000 small scale units which provide employment to roughly 12000 people.

Under the Suvarna Karnataka Development Corridor, this region has been identified as a Cement Zone.

---

*This information is compiled from the District Industrial Perspective Plan for the taluks of Yadgir, Shorapur and Shahpur.*
Additionally, there are two airports at Bijapur and Gulbarga being planned which will further improve access to the region.

4.5 Development Needs, Public needs & Planning Considerations

Karnataka currently has a 6% share in the overall pharmaceuticals exports market of the country. The state is already a front runner in attracting bio-tech companies to set up base which according to popular estimates brought an investment of over Rs. 1000 crores.

Karnataka has obvious advantages when it comes to infrastructure availability. During the previous Global Investors Meet in 2010, the total investments committed in the pharmaceuticals sector were to the tune of Rs. 170 crores. Karnataka needs to improve its positioning in the pharmaceuticals sector which can provide alternative employment means to its populace.

Furthermore, the bulk of the pharmaceutical sector is now geared towards exports and it is likely that the share of exports in the Indian pharmaceuticals market will reach close to 40% over the next 5 years or so.

One of the key attractions for any investor is easy availability of serviced land. If service land can be provided in a ready-to-use (plug and play and built to suit) formats, investors will be more than willing to set up base in locations across the state.

4.6 Best Case Studies for similar projects in India/ world

Since there are no direct case studies of pharmaceutical SEZs in the country documented or publicly available, we have chosen to discuss a case study of an integrated industrial township model. This is relevant since the area for the Yadgir park is significantly large and integrated development will help market the area better.

4.6.1 The Tefen Model

Atop a rocky hillside in the northern Galilee region of Israel, industrial workers each produce over $150,000 a year for export. Together they account for over 10 percent of Israel’s industrial exports and yearly sales of one and a half billion dollars. This is Tefen, populated by less than one percent of the Israeli population.

Tefen is the site of the first model Industrial Park developed by the industrialist Stef Wertheimer, replicated at three other locations in Israel with four additional projects planned, both in Israel and overseas. At the outset, these projects promoted Stef Wertheimer’s vision of the development of Israel towards a goal of economic independence and stability. Today, the model is expanding in pursuit of a broader vision for economic independence for Israel and her neighbours, regional stability and peace.

Up until the mid-1980s, Tefen was a barren hilltop grazed by local goat herds. Today, the scope of industrial exports manufactured at Tefen equals that of the entire Jerusalem area. The four Tefen Model Industrial Parks have, to date, given rise to more than 160 industrial enterprises, with export rates typically associated with industrial powerhouses such as the United States, Western Europe and Japan.
The Industrial Parks were established with the goal of creating a supportive, quality environment to nurture the development of export-orientated economic activity. All of the Parks are unique in Israel in that they integrate a high level of aesthetics and business services with art, culture and educational facilities of international standards. The Industrial Park is a supportive business incubator that enables entrepreneurs, at the early stages of business development, to focus their efforts on their major concerns, namely the manufacture and marketing of their products.

The Model is based on the synergy of complementary factors of development: advanced export industry, education and technological training, cultural enrichment, high living standards for workers and their families, and peaceful coexistence. The simultaneous pursuit of all of the development factors provides a collective impact, far greater than the sum of individual initiatives.

The synergy generated by the Model sets the Industrial Parks apart from other industrial initiatives in Israel and abroad, through their creation of an entirely new type of industrial-social-cultural entity. The model, which recognizes the importance of a sophisticated work environment together with the possibility of a high quality of life, has been exceptionally successful in attracting highly productive industries and a high-quality workforce to remote and developing areas.

4.6.2 PhaEZ – Pharmaceutical SEZ in Gujarat

Cadila Pharmaceuticals India Limited has proposed to develop a pharmaceutical SEZ at Haripura Village near Dhandhuka town. The site is at a distance of 78 Kms from Ahmedabad, the Commercial Capital of Gujarat.

The World Class Pharmaceutical SEZ is located in between Ahmedabad & Bhavnagar on Highway connecting these Cities. It takes around 1.5 Hours from Ahmedabad. Ahmedabad is well connected with rest of the Country through its Rail Network. Both International & National Airport is present in the City, with frequent flights to the major cities of the world.

The PhaEZ offers the following advantages:

**Plug & play facility**

PhaEZ has facility to accommodate both Formulation & API Plant. All Necessary services will be provided in 22 hct of non processing area. All Necessary utilities will be provided through central facilities by joint venture companies.

**Social infrastructure**

- Well laid out road network and parking spaces
- Gardening and landscaping
Commercial and Industries Department, Government of Karnataka

- Commercial complexes
- Health and recreation facility
- Educational complex
- Guest houses
- Warehouses
- High speed communication networks
- Manned security with wired boundary fencing

**Water source**

Abundant water supply is available from Narmada Canal network. The site is close to a canal where the daily water capacity is 6000 cu. mts/day.

**Power supply**

- 132 kV substation 12 km from Park.
- 220KV extra high tension line passing near the Park.
- Proposed 220 KV substation 10 KM from Park.
- Provision for 50 MW Gas based CPP inside SEZ.

**Air Port**

- Ahmedabad – 100 Kms
- Proposed international airport at Fedra – 10 kms

**Road Distance**

- Ahmedabad 80 Kms
- Mumbai 600 kms
- New Delhi 750 Kms

**Port distance**

- Proposed Dholera port – 40 kms
- Pipavav – 150 kms
- Mundra – 460 Kms
- Kandla – 400 Kms
- Mumbai – 600 Kms
5. Market Assessment

Over the last 40 years, since its inception, the Indian pharmaceutical industry has thrived on the generic model by leveraging on its process chemistry skills and low-cost manufacturing advantage. This has enabled players to tap the huge generic opportunity abroad. However, the R&D productivity of large global pharmaceutical players (innovators) has considerably slowed down over the past few years which is underscored by the declining number of new molecules (New Molecular Entities - NMEs) being approved by the US FDA each year.

Taking this trend forward, the lack of new drug launches between 2010 and 2015 onwards will mean that the generic opportunity set to open up in the next decade (post 2020) is likely to be significantly lower (assuming average age of 8-10 years of patent exclusivity). These changes in the global pharmaceutical landscape could cause a slowdown in the generics segment and hence, the Indian pharmaceutical industry will be forced to look at newer avenues for growth. In the following section, we have provided our opinion on how the global forces of change will shape the strategy of Indian players.

The three major segments - domestic formulations, formulation exports and bulk drug exports - have traditionally been the backbone of the Indian pharmaceutical industry. With the generics market set to become extremely competitive in the long term (next 10 years), Indian players will look to make the most of the current generic opportunity and achieve a substantial scale of operations.

However, going forward, with more MNCs foraying into India and a shrinking generic market, Indian pharma players will have to increase their reach in segments such as contract research, biopharmaceuticals and new drug development (NDD). Global challenges will force Indian players to offer a whole gamut of products and services to ensure stable revenues and margins.

In the medium term (next 5-10 years), Indian players will look to expand their presence in the global generics market so as to maintain stable revenues in case of a slowdown in the segment. In addition to regulated markets, Indian players will also look to expand further in the semi-regulated markets of Latin America and CIS, in order to stave off competition from large global players. With a strong generic opportunity opening up over the next 5 years and the need to expand market shares, Indian players will look at options such as contract manufacturing deals, joint ventures (JVs) and overseas acquisitions. These strategies will be mainly geared towards expanding product portfolios, brand building and having a well-established distribution network.

5.1.1 Innovation will be a key growth driver

A paradigm shift needs to take place in the Indian pharmaceutical industry. Large Indian players have to enhance their focus on new drug development. This is an area with tremendous potential for Indian players in the long run. The ability to discover novel drug molecules will enable Indian players to be present across the value chain (bulk drugs to generic formulations to novel drugs). Additionally, Indian drugmakers can also provide contract research services to global innovators. The size of the Indian contract research industry is about $275 million and it is set to grow to by about 15-17 per over the next 5 years.
5.2 Biopharmaceuticals holds immense potential for Indian pharma players

The Indian biopharmaceutical industry is in its emerging stages and is sized at approximately $1 billion as of 2009-10. Indian bio-pharma players largely export recombinant vaccines to semi-regulated markets and launch bio-similars in the domestic market. Players are yet to make meaningful inroads into regulated markets in the Europe and US. CRISIL Research believes that the biopharmaceutical segment has ample potential to make up for the lack of opportunity in the formulation exports.

5.3 Opportunities & Demand projections

5.3.1 Buoyant manufacturing opportunities for Indian pharmaceutical players

Manufacturing opportunities for Indian pharmaceutical players can broadly be classified into formulations and bulk drugs. The formulations segment can be further categorised into domestic and export. Traditionally, the domestic segment accounts for 40-50 per cent of total formulations production. Although this share will remain stable till 2015-16, the share of formulations exports is set to rise gradually during the same period.

<table>
<thead>
<tr>
<th>USD Billion</th>
<th>2005-06 E</th>
<th>2010-11 E</th>
<th>2015-16 P</th>
<th>Compounded Annual Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2005-06 to 2010-11 (E)</td>
</tr>
<tr>
<td>Domestic formulation consumption</td>
<td>5.4</td>
<td>10.5</td>
<td>20-21</td>
<td>14.3</td>
</tr>
<tr>
<td>Formulation exports</td>
<td>2.5</td>
<td>6.5</td>
<td>12-13</td>
<td>21.3</td>
</tr>
<tr>
<td>Bulk drug exports</td>
<td>2.8</td>
<td>9.1</td>
<td>20-21</td>
<td>26.5</td>
</tr>
</tbody>
</table>

Source: CRISIL Research

In the case of bulk drugs, domestic consumption accounts for only around 20 per cent of the total production. Hence, the Indian pharmaceutical industry is dominated by exports (bulk drugs and formulations), which contributed an estimated 60 per cent to the industry's sales in 2010-11. Formulations are exported either through contracts (supply) or directly sold (retail) in the market. Similarly, bulk drugs are either supplied under a contract in case of patented drugs, or are sold outright as in the case of off-patent drugs. Going forward, India is poised to extend its presence into the on-patent regulated markets, while maintaining a strong foothold in off-patent drugs as well.
6. Project financials

The project financials have been worked out based on ASSUMPTIONS only. The actual working of financial for the park will depend on several components viz. land use plan, water requirements, common effluent treatment plant requirements and all other infrastructure components. We have developed the financial analysis only to demonstrate that it is possible to structure the development of industrial infrastructure on a PPP basis.

6.1 Cost Estimation

The cost estimates have been worked out based on thumb-rule estimates and our experience of developing cost and financial analysis for other similar parks. The total estimated cost of developing all infrastructure and facilities within the area would be approximately Rs. 247800 lakhs or Rs. 2478 crores. The overall cost estimates have been outlined below for illustration purpose only:

Table 6-1: Cost estimates for pharmaceutical park at Yadgir

<table>
<thead>
<tr>
<th>Project component</th>
<th>Project Cost (Rs Lakhs)</th>
<th>IDC Loading (Rs Lakhs)</th>
<th>Total (Rs Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>11,658</td>
<td>658</td>
<td>12,316</td>
</tr>
<tr>
<td>Water Supply</td>
<td>8,591</td>
<td>485</td>
<td>9,075</td>
</tr>
<tr>
<td>Strom Water Drains</td>
<td>832</td>
<td>47</td>
<td>879</td>
</tr>
<tr>
<td>Underground Electric Cables</td>
<td>1,269</td>
<td>72</td>
<td>1,340</td>
</tr>
<tr>
<td>Underground Telephone Cables</td>
<td>134</td>
<td>8</td>
<td>141</td>
</tr>
<tr>
<td>Casing Pipes for Cables for Road Crossing</td>
<td>62</td>
<td>4</td>
<td>66</td>
</tr>
<tr>
<td>Effluent Drainage</td>
<td>43,168</td>
<td>2,435</td>
<td>45,604</td>
</tr>
<tr>
<td>Domestic Drainage System</td>
<td>12,480</td>
<td>704</td>
<td>13,184</td>
</tr>
<tr>
<td>Initial Costs</td>
<td>5,133</td>
<td>290</td>
<td>5,423</td>
</tr>
<tr>
<td>Buildings</td>
<td>727</td>
<td>41</td>
<td>768</td>
</tr>
<tr>
<td>Residential Complex</td>
<td>150,550</td>
<td>8,493</td>
<td>159,043</td>
</tr>
<tr>
<td>Total</td>
<td>234,604</td>
<td>13,237</td>
<td>247,839</td>
</tr>
</tbody>
</table>

The cost estimates are only for demonstration purposes and may vary depending on the plan for SEZ.
6.2 Revenue streams

The revenue streams have been identified in the following categories:

- Lease rentals and maintenance charges for industrial, commercial and residential units
- Water charges paid by users
- Effluent treatment charges paid by users

A significant portion of operating cost for the SEZ is for O&M of common infrastructure facilities, which cannot be recovered by charging direct user charges. The operation and maintenance cost of such common use facilities as roads, storm water drains, underground electric cables, domestic drainage system and green areas would be funded by contribution from the SPV members. In order not to overburden units, the membership contribution has been capped at Rs. 10/sq. meter.

A sample of the revenue stream has been presented below:

Table 6-2: Sample revenue stream

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member contribution</td>
<td>33.39</td>
<td>70.11</td>
<td>110.43</td>
<td>193.25</td>
<td>310.46</td>
<td>325.99</td>
</tr>
<tr>
<td>Lease Rentals</td>
<td>18,034.15</td>
<td>20,865.32</td>
<td>23,967.13</td>
<td>29,308.00</td>
<td>37,254.86</td>
<td>39,489.60</td>
</tr>
<tr>
<td>Water charges paid by users</td>
<td>1,190.00</td>
<td>3,254.80</td>
<td>5,078.98</td>
<td>8,814.41</td>
<td>14,708.72</td>
<td>15,371.88</td>
</tr>
<tr>
<td>Effluent Drainage</td>
<td>960.50</td>
<td>960.50</td>
<td>960.50</td>
<td>1,921.01</td>
<td>2,881.51</td>
<td>1,921.01</td>
</tr>
<tr>
<td>Total revenue (Rs. Lakhs)</td>
<td>20,218</td>
<td>25,151</td>
<td>30,117</td>
<td>40,237</td>
<td>55,156</td>
<td>57,108</td>
</tr>
</tbody>
</table>

Since KIADB will also be a stakeholder in the whole process, it is assumed that the KIADB would be able to earn a revenue share of 5% to 10% (or whatever is decided at the time of the transaction).

6.3 Viability assessment

The feasibility of the project is assessed based on the estimated project cost, inflow of lease rentals, and other operational surpluses/deficits. The overall project cash flows are evaluated against targeted values of project IRR, and equity IRR, which are in turn determined by cost of debt, equity and overall Weighted Average Cost of Capital (WACC).

We have estimated that the proposed SEZ would begin to be occupied in Year 3, i.e., 2015 onwards as the first two years would be dedicated to the development of the land. Occupancy is likely to be experienced in a phased and gradual manner, as the developer would be in the process of attracting investments into the set-up. In this ‘base’ financial feasibility total occupancy levels of 10 percent, 20
percent, 30 percent, 50 percent and 80 percent have been assumed for years 2015, 2016, 2017, 2018 and 2019 and 2020 respectively. By 2020, it is assumed that the SEZ would be fully occupied (100 percent).

Hence, revenues, variable costs and capital recoveries are functions of the above mentioned “market off take” with regards to industrial, commercial and residential spaces. Feasibility of the project would be largely dependent on the pace with which tenants are attracted into the SEZ.

The results of the viability assessment have been outlined below:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project IRR</td>
<td>17%</td>
</tr>
<tr>
<td>Equity IRR</td>
<td>18%</td>
</tr>
<tr>
<td>Average DSCR</td>
<td>2.4</td>
</tr>
</tbody>
</table>

### 6.4 Funding available under various schemes

The central government’s viability gap funding mechanism allows for funding of up to 20% of the total project for projects under the PPP mode for projects that are otherwise financial unviable.

The state government also has a VGF mechanism which provides an additional 20% of the project cost over and above the central government’s VGF funding.

### 6.5 Issues for C & I’s consideration

#### 6.5.1 Pharmaceutical v. multi-product

Typically in the country, pharmaceutical SEZs have been or are being developed in less than 1000 acres of areas. The current area that is available with KIADB is to the extent of 3300 acres which is very large and might prove to be far too large for a pharmaceutical park alone. We are of the view that the area should be deemed as a multi-product industrial area rather than a pharmaceutical park alone. In the first phase, a pharmaceutical park may be developed to kick-start the development process.

#### 6.5.2 Single Phase or Multiple Phase

In the single phase development the entire land parcel would be developed in one go. This option provides the flexibility to include a host of non-processing activities as well. However, the risks associated with the single phase development are multi-fold like demand risk, time and cost overrun risks, high investment risks etc. A strategic partner may not be very keen to develop a very large facility right upfront since the off-take would also be phased over a period of time. Also, the failure of the project to take off or not being successful in the long-run would also mean that the project proponent (KIADB) would take a hit on its image.

In the multi phase development the entire area is divided into multiple parts and these are developed in phases. Upon nearing saturation of a particular part, the strategic partner would develop the
remainder of land for further occupation. This multi-phase development would be more suitable since the occupancy will only gradually build up and all zones are developed simultaneously and each zone is planned to house specific groups of industries (based on a suitability and compatibility analysis). It will also provide comfort to the strategic partner since his investments would be limited and would allow him to test the market as well.

6.6 Discussions on the report

While we have developed the report and have provided recommendations based on our assessment of the projects, we would like to further discuss the recommendations with the C & I Department officials and factor in their suggestions and recommendations as well.
7. Regulatory & Legal Framework

7.1 Applicable laws & Act and Legal Cover for the project

The development of the SEZ would be influenced by several legislative instruments and policy instruments. The SEZ would be directly under the purview of The SEZ Act, 2005 of central government. It will also be influenced by the state SEZ Policy of the state government.

Further, the SEZ may also benefit from the following policies:

- Karnataka State SEZ Policy 2009
- Karnataka Industrial Policy 2009 – 14
- Karnataka Infrastructure Policy 2007
- Karnataka Renewable Energy Policy
- The State Millennium Biotechnology Policy 2001

7.2 Legal & Regulatory framework

The regulatory framework covering an SEZ is largely defined by the SEZ Act, 2005 and the Karnataka State SEZ Policy, 2009. There are several incentives that are available under the respective legislations for developing an SEZ. These have been outlined in the section below:

7.2.1 Benefits and Incentives under the SEZ Act

The following benefits are available under the SEZ Act, 2005.

- Duty free import/domestic procurement of goods for development, operation and maintenance of SEZ units
- 100% Income Tax exemption on export income for SEZ units under Section 10AA of the Income Tax Act for first 5 years, 50% for next 5 years thereafter and 50% of the ploughed back export profit for next 5 years
- Exemption from Central Sales Tax
- Exemption from Service Tax
- Single window clearance for Central and State level approvals
- Exemption from State sales tax and other levies as extended by the respective State Governments
- Exemption from minimum alternate tax under section 115JB of the Income Tax Act

7.2.2 Benefits and incentives under the State SEZ Policy, 2009

Following fiscal benefits will be offered to Developer, Co-developer and Units operating in the SEZ:

For SEZ developers and Co-developers

- All purchases excluding purchase of petroleum products from domestic tariff area for authorized operations of entire area in SEZs shall be exempted from State and local body taxes or levies or cess such as Sales Tax, VAT, Entry Tax, and Special Entry Tax. This exemption will not be available for the goods sold in the domestic tariff area with or without value addition
- Exemption of Stamp Duty and Registration fees for Registration of Land and Loan/Credit Documents - Provided that exemptions in respect of stamp duty and registration fee relating
to transaction of land for development of the SEZ between the Developer/Co-developer and the land owners and between the Developer and Co-developer would be available for the first transaction only. For KIADB acquired and allotted land, exemption of Stamp Duty and Registration fees shall be available both at the time of execution of lease deed / lease cum-sale deed and absolute sale deeds
- Exemption of Electricity Duty or Taxes on sale, of self generated or purchased electric power for use in the processing area of SEZ
- Exemption of 1% Labour Welfare Cess on construction cost incurred by the developer / co-developer
- One time capital subsidy up to 50% of the cost incurred for setting up Common Effluent Treatment Plant subject to a ceiling of Rs. 100 lakhs per CETP / SEZ
- Exemption from any other State taxes, cess, duties or levies as may be notified by the State Government, from time to time for SEZs

For SEZ units
- All purchases excluding purchase of petroleum products by SEZ units located in the processing areas from domestic tariff area or SEZ area for its set up, operation or maintenance or for use in manufacture, trading, production, processing, assembling, repairing, reconditioning, re-engineering or packing shall be exempted from State and local body taxes or levies or cess such as Sales Tax, VAT, Entry Tax and special Entry Tax. This exemption will not be available for the goods sold in the domestic tariff area with or without value addition, if sold, applicable State taxes are levied.
- 50% Exemption of Stamp Duty and Registration fees for Registration of lease deeds/sub-lease deeds in respect of industrial land/built-up space and Loan/Credit Documents in the processing area.
- Provided that exemptions in respect of stamp duty and registration fee relating to transaction of industrial land / built up space between the SEZ Developer / Co-developer & the Units would be available for the first transaction only
- Exemption of Electricity Duty or Taxes on sale, of self generated or purchased electric power for use in the processing area of SEZ.
- Exemption of 1% Labour Welfare Cess on construction cost incurred by the Unit.
- Exemption from any other State taxes, cess, duties or levies as may be notified by the State Government, from time to time.

### 7.3 Key Issues

As defined in the state SEZ Policy, the SHLCC is nominated as the single point clearance for the SEZ developer/co-developer, and for consideration and approval of SEZ projects and recommendation to Government of India, for approval.

This will be a key task that will need to be expedited on an immediate basis since a delay in approval may thwart the entire project from moving forward. Moreover, this is a key step which will enable the SEZ to solicit approval of the Government of India.

#### 7.3.1 Approval from the Board under the SEZ Act

The Board constituted under the SEZ Act shall provide its concurrence for establishment of an SEZ. The entity or state government wishing to develop infrastructure will also
8. **Indicative environmental & social impacts**

8.1 **Environmental impacts**

The environmental impacts due to the development of the pharmaceutical park are pre-dominantly likely to be in term of air, water and noise pollution.

Air pollution would be because of the development activities for the construction of infrastructure as well as industrial units. The development would be spread over a period of 4 to 5 years and would peak incrementally which would further the pollution load.

Water pollution is likely once the occupancy in the park starts taking place. Once units become active, effluent discharge will be a critical area which, if not mitigated, would lead to surface and ground water pollution over time.

Noise pollution would also largely follow the occupation of the park. In the initial years, noise pollution would be attributable to the construction activity and later would be attributable to noise emanating from units.

8.2 **Social impacts**

The current land being occupied is largely agricultural land and hence may result in the loss of livelihoods for farmers. Currently, no human settlement is observed on the land under study and hence no resettlement and rehabilitation issues are foreseen.

8.3 **Mitigation measures**

It will be critical to develop both an environmental impact assessment (EIA) and a social impact assessment (SIA) before the development of the pharmaceutical park is undertaken. These studies will clearly identify issues related to both environment and social impact and would provide detailed mitigation measures for the same.

Additionally, as part of our pre-feasibility assessment, we have included the cost of setting up a common effluent treatment plant (CETP) within the pharmaceutical park which will effectively render the area as a zero discharge facility.
9. Operating Framework

9.1 Risks and mitigation

The risk framework for this project has been outlined below:

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Risk Implication</th>
<th>Mitigation Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor risk</td>
<td>Department scraps projects under PPP mode</td>
<td>Termination payments in case of Department scrapping projects</td>
</tr>
<tr>
<td>Environment risk</td>
<td>Adverse impact on surrounding environment</td>
<td>Penalty clauses in case of default on Concessionaire’s part</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmental Impact Assessment to identify all risks in advance</td>
</tr>
<tr>
<td>Political risk</td>
<td>Change in government may put project in jeopardy</td>
<td>Termination payments in case of project being scrapped</td>
</tr>
<tr>
<td>Force majeure risk</td>
<td>Project is abandoned</td>
<td>Force majeure clauses in the concession agreement</td>
</tr>
<tr>
<td>Operating risk</td>
<td>Operations of the park are impacted (infrastructure service failures etc.)</td>
<td>Penalty clauses for stalled operations on account of concessionaire’s fault</td>
</tr>
<tr>
<td>Revenue risk</td>
<td>Revenue realization is sub-par</td>
<td>Protection clauses for the developer in case the revenues fall below threshold limit (depending on the nature of project)</td>
</tr>
<tr>
<td>Demand risk</td>
<td>Demand within pharma park is low</td>
<td>Protection clauses for the developer in case the demand is lower than anticipated</td>
</tr>
<tr>
<td>Design risk</td>
<td>Overdesign of the project</td>
<td>Project design to be finalized in mutual agreement of concessionaire and department/SPV/appropriate agency</td>
</tr>
<tr>
<td>Completion risk</td>
<td>Completion of project is delayed</td>
<td>Penalty clauses for time overrun in the concession agreement</td>
</tr>
<tr>
<td>Cost over-run risk</td>
<td>Cost of projects are higher than anticipated</td>
<td>Developer to be responsible for cost controls; clauses for non-payment of additional costs on account of concessionaire’s fault</td>
</tr>
</tbody>
</table>
9.2 Indicative Project Structure

In order to make the Pharma SEZ a success, the expertise and strengths of various stakeholders would need to be structured effectively. Project Structuring involves allocating roles and responsibilities amongst the various Stakeholders capable of executing/managing them most efficiently. An efficient Project Structure also needs to give due consideration to the interests/concerns of all Stakeholders in order to have sustainable operations.

The key Stakeholders in the project are

- Government of Karnataka
- KIADB
- Strategic Partner
- Tenants
- Financial Investors and Lenders

The Government of Karnataka (GoK) intends to further the development of the industrial infrastructure in the region and thereby boost investments in the state.

As the the nodal agency for the project, KIADB’s concerns are:

- Recovery of investment in the land demarcated to be transferred to the Special Purpose Company (ies) (SPCs), which will be responsible for execution of the Project.
- Participate in the potential benefits of SEZ (either through equity stake or premium for the land).
- Development of Yadgir region

It is assumed that the key concerns of the Strategic Investors would be:

- Overall attractiveness of the Project
- Facilitation by KIADB as a partner
- Long term commitment from Government of Karnataka
- Autonomy to take decisions in line with his commercial objectives
- Minimize capital at risk

Tenants i.e. various industries and services would be concerned about:

Assured, good quality and cheap infrastructure & services

Hassle free operating environment and a single point interface for all infrastructure & services

The Financial Investors and Lenders would be concerned with risks, returns and liquidity of investments in the project. Specific concerns would be regarding:

- Reducing the risks in the Project through commitment from KIADB/Government of Karnataka
- Bankable revenue streams and adequate cover
- Credit enhancing mechanisms
- Reducing the execution risk by selecting promoters with a good track record

The interests and concerns of various Stakeholders as identified above have been captured (as Key Issues) and addressed in the following section.

9.2.1 Key issues in project structuring

The key issues, as envisaged, in structuring the Pharma SEZ project are as follows:
Role of the State – KIADB and other bodies
Private sector partnering - one or more Strategic Partners
Land development and provision of services – one company or separate companies
Services to tenants - one point interface or multiple service providers
Transfer of assets to SPC

9.2.1.1 Role of the state-KIADB and other bodies
State Government and its bodies could have multiple roles in the Pharma SEZ project. These roles could be one or more of the following:
- Statutory role
- Management
- Investor
- Land owner
- Facilitator between government and private players
- Developer
- Infrastructure provider (Own facilities or concessions)
  - Trunk Infrastructure Provider
  - Local Utility Provider

Based on the Private Sector Participation (PSP) experiences in infrastructure sector and development of SEZs across the world, it is envisaged that the roles most suitable to be undertaken by state government and its bodies are as follows:

Statutory role
All roles to be performed by the government (the sovereign authority) as per the laws of the land would need to be undertaken by the state government e.g. maintaining law and order in the SEZ.

Management vis-a-vis Investor
Typically investors prefer to have representation and control of companies/projects (where investments have been made) in order to secure their investments. State government and its agencies would, on the other hand, also be concerned about the economic and social outfall of the Project. Moreover, presence of State government or its agencies would also provide comfort to the tenants regarding transparency of transactions and regulation of the area.

The Strategic Partner on the other hand would prefer management control and autonomy over commercial decisions. However, he could benefit from a limited role of the state i.e. that of a facilitator. Moreover, the Strategic Partner is expected to provide superior marketing reach, financing capability and better management expertise and thus a higher stake for KIADB would lead to a dilution of the project on the above aspects.

Further, the implication of a high equity stake is that KIADB might need to commit further funds to the project, in order to fund growth and further development.

The following table summarizes the implications of the various options before KIADB as an investor.

<table>
<thead>
<tr>
<th>Extent of Stake</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% Stake for KIADB</td>
<td>The Project would be entirely under public sector control</td>
</tr>
<tr>
<td></td>
<td>GoK/KIADB do not possess capabilities in marketing to tenants and management of infrastructure</td>
</tr>
<tr>
<td>Extent of Stake</td>
<td>Implications</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Large capital commitments would have to be made for the development of the Project leading to funds outflow for the government. Tenants are likely to have less comfort with regard to public body’s ability to deliver upon the world-class infrastructure and management.</td>
<td></td>
</tr>
<tr>
<td>50-100% Stake for KIADB</td>
<td>The government would retain management control, and hence attracting other equity investors will be difficult. Future investments required would need to be funded by KIADB to maintain majority shareholding. Tenants are likely to have less comfort with regard to the public body’s ability to deliver upon the world-class infrastructure and management.</td>
</tr>
<tr>
<td>26-50% Stake for KIADB</td>
<td>Management control would vest with private sector participant. The government would have no real operational control but would enjoy Veto power in cases of special resolutions. Future investments will need to be funded by KIADB to the extent of its shareholding, but the funds requirement will be lesser than in previous cases.</td>
</tr>
<tr>
<td>0-25% Stake for KIADB</td>
<td>KIADB would have no control on any activity of SPC. There is only limited comfort for GoK.</td>
</tr>
<tr>
<td>0% Stake for KIADB</td>
<td>The project would be equivalent to a Build Own Operate (BOO) Structure. The entire project is financed and managed by the private sector participant. The government would be related only through contract to the Project.</td>
</tr>
</tbody>
</table>

Based on the analysis above, it is proposed that KIADB should hold equity stake of around 26% - 49% in the SPC with management control given to the Strategic Partner. This would address the concerns of all the Stakeholders.

**Facilitator**

KIADB as a government company is well versed with the clearances and administrative procedures involved for project execution and operations. It is thus envisaged that KIADB, being well positioned in the administrative mechanism, would be an ideal body, as a facilitator, to provide such support to the SPC formed for implementing the project.
Provider of trunk infrastructure

KIADB has developed industrial estates/areas in the past and has procured trunk infrastructure like water supply sources, trunk water supply lines, trunk linkage roads, etc. Efficient provision of such infrastructure is crucial for the development of Pharma SEZ, more so since it is beyond the scope and control of the SPC implementing the project. Currently most trunk infrastructure services are operated and managed by state government agencies. It is thus envisaged that KIADB and the State government would help in assuring efficient provision of trunk infrastructure to the SPC for the Project.

9.2.1.2 Land and services - same company or separate companies

The Pharma SEZ envisages land development and provision of infrastructure services to pharmaceutical manufacturing industries and services. Although, each of the project components could be developed independently, there is a likelihood that all of these services, individually, might not be viable and thus there is a case for cross-subsidisation between project components. Moreover, independent SPCs for land development and provision of services might lead to administrative complexities between the two entities. It is thus proposed that a single SPC be formed for execution of the complete Project i.e. land development and provision of infrastructure services.

9.2.1.3 Services to tenants - one point interface or multiple service providers

The SPC implementing the Project might not have the capability to provide all infrastructure and services efficiently i.e. assured and cheap infrastructure services. Thus the SPC might sub-contract or out-source certain service and have back-to-back arrangements with other service providers. However, tenants would require a hassle-free single point interface for all infrastructure and services, which takes care of all their needs and hence enables them to focus on their core business activities. Thus, from the tenants’ viewpoint, it is desirable that the SPC be responsible for aggregating all infrastructure services.

9.2.1.4 Recommended project structure

Based on the key takeaways from the above analysis, we recommend that the KIADB becomes a strategic stakeholder in the SPC with a 26% stake. The land being provided by KIADB would substitute the equity requirements for participation in the SPC.

The SPC will be the sole agency responsible for providing both serviced land and infrastructure services to the tenants in the SEZ.
Figure 9-1: Recommended structure for the pharma park

Service Arrangements

Strategic Partner

74%

KIADB

26%

Special Purpose Company

Development Rights

Tenants

Land
10. Way Ahead

10.1 Project Development Framework

In order to kick start the development of the SEZ, it will be necessary for the GoK to first notify the area as an SEZ and initiate all approval processes under the state SEZ Policy framework and Government of India SEZ legislative framework. The SEZ should go through the SHLCC approval process in the first stage and then the process of selecting a strategic partner can commence.

Figure 10-1: Project development framework

Once the SHLCC approval has been secured, the process of appointing a transaction advisor should be initiated to revalidate or conduct detailed feasibility for the SEZ. Upon the completion of the feasibility study the transaction advisor shall also manage the bid process for the sponsoring agency. Once the developer has been appointed, the SPC shall make an application under the SEZ Act, 2005 for approval of the SEZ.
10.2 Procurement Plan

The procurement plan has been prepared to ensure that the entire process of selecting a developer for the SEZ would be completed within the shortest possible time. The entire procurement plan currently assumes that the entire process can be completed within 20 weeks i.e. 5 months or so. This procurement plan is designed such that the Request for Qualifications can be floated in the Global Investors Meet, thereby allowing the state to solicit proposals for investment.

In order to realize this procurement plan, the state government will first need to quickly procure the State High Level Clearance Committee (SHLCC) approval for developing the SEZ at Yadgir. It is assumed that this should not take more than 2 weeks. Once the SHLCC approval is in place, the state should immediately submit relevant applications to the Board under the SEZ Act for its approval.

While the approval of the Board is sought, the state should alongside the approval, also start the process of appointing a Transaction Advisor for the SEZ. The appointment of the Transaction Advisor should be completed with 4 to 5 weeks.

| Activity                        | W1 | W2 | W3 | W4 | W5 | W6 | W7 | W8 | W9 | W10 | W11 | W12 | W13 | W14 | W15 | W16 | W17 | W18 | W19 | W20 | M1 | M2 | M3 | M4 | M5 | M6 | M7 |
|---------------------------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| SHLCC Approval                  |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| Appointment of Transaction Advisor |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| Request for Qualification       |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| Request for Proposal            |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| Signing of Concession Agreement |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
| Approval under SEZ Act          |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |

Once the Transaction Advisor is in place, based on the initial assessment and key takeaways from the Pre-Feasibility. Request for Qualifications should be floated in time with the Global Investors Meet to ensure that there are adequate aspirants available for seek this qualification. The RFQ process should be completed in 4 weeks or so.

Upon completion of the Qualification, the Request for Proposal (RFP) should be issued to qualified bidders and the process of selecting the preferred bidder should be initiated. The selection of preferred bidder should be completed within 8 weeks or so. Upon the identification of the preferred bidder, the concession agreement signing process should be completed within two weeks.
11. Annexure 1 - Agencies under the Commerce and Industries Department

11.1 Directorate of Industries and Commerce

The main function of Directorate of Industries and Commerce is to carry out industrial development in the state and implement policies and schemes of Government of India and Government of Karnataka. The functions are grouped as under:

- Policy Initiatives for Industrial Development
- Industrial Promotion and Monitoring
- Project clearance and monitoring through Single Window and High level committees
- New scheme approvals
- Monitoring of Employment Generation programmes
- Institutional support to Institutions associated with industrial development
- Monitoring and Implementation of Government Orders issued by the State and Central Government
- Co-ordination with other Departments and Offices of the Government
- Participation in national and international trades and exhibitions to showcase the state in attracting investment
- Administrative issues of the Department

11.2 District Industries Centres

The District Industries Centres were created to become a key agency for promotion of small scale, village and cottage industries. The functions of the District Industries Centres are as follows:

- Registration of MSMEs
- Infrastructure assistance to entrepreneurs
- Implementation of incentive schemes of both state and central governments
- Employment generation programmes
- Implementation of sub-component plan and tribal sub-plan
- Entrepreneurship development and awareness programmes

11.3 Industrial wing of Zilla Panchayats

The main function of Industrial wing of Zilla Panchayath at the District level is to promote the village and cottage industries and to assist the artisans. The main functions are to:

- Provide training through various programmes
- Provide living cum work-sheds to artisans
- Provide seed capital to micro and small industries in rural areas
- Organize promotional campaigns in rural to assist artisans
- Provision of toolkits to artisans
- Undertake artisan survey
- Effect recovery of loans
11.4 **Boards and Corporations**

The Industries and Commerce Department has 16 Boards/Corporation functioning under it. These have been listed out below:

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name of the Board or Corporation/ Society</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Karnataka State Financial Corporation (KSFC)</td>
<td><a href="http://www.ksfc.in">www.ksfc.in</a></td>
</tr>
<tr>
<td>2</td>
<td>Karnataka State Industrial Investment Development Corporation (KSIIDC)</td>
<td><a href="http://www.ksiidc.com">www.ksiidc.com</a></td>
</tr>
<tr>
<td>3</td>
<td>Karnataka State Small Industries Development Corporation (KSSIDC)</td>
<td><a href="http://www.kssidc.kar.nic.in">www.kssidc.kar.nic.in</a></td>
</tr>
<tr>
<td>4</td>
<td>Karnataka State Handicrafts Development Corporation (KSHDC)</td>
<td><a href="http://www.cauverycrafts.com">www.cauverycrafts.com</a></td>
</tr>
<tr>
<td>5</td>
<td>Karnataka Industrial Areas Development Board (KIADB)</td>
<td><a href="http://www.kiadb.in">www.kiadb.in</a></td>
</tr>
<tr>
<td>6</td>
<td>Karnataka Udyog Mitra (KUM)</td>
<td><a href="http://www.kumbangalore.com">www.kumbangalore.com</a></td>
</tr>
<tr>
<td>7</td>
<td>Karnataka Council for Technological Upgradation (KCTU)</td>
<td><a href="http://www.kctu.kar.nic.in">www.kctu.kar.nic.in</a></td>
</tr>
<tr>
<td>8</td>
<td>Karnataka State Coir Development Corporation (KSCDC)</td>
<td><a href="http://www.karnatakacoir.com">www.karnatakacoir.com</a></td>
</tr>
<tr>
<td>9</td>
<td>Centre for Entrepreneurship Development of Karnataka (CEDOK)</td>
<td><a href="http://www.cedok.kar.nic.in">www.cedok.kar.nic.in</a></td>
</tr>
<tr>
<td>10</td>
<td>Technical Consultancy Services Organisation of Karnataka (TECSOK)</td>
<td><a href="http://www.tecsok.com">www.tecsok.com</a></td>
</tr>
<tr>
<td>11</td>
<td>Visvesvaraya Industrial Trade Centre (VITC)</td>
<td><a href="http://www.vitcblr.org">www.vitcblr.org</a></td>
</tr>
<tr>
<td>12</td>
<td>Leather Industries Development Corporation of Karnataka (LIDKAR)</td>
<td><a href="http://www.lidkar.com">www.lidkar.com</a></td>
</tr>
<tr>
<td>13</td>
<td>Karnataka State Khadi and Village Industries Board (KVIB)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Karnataka Institute of Leather Technology (KILT)</td>
<td><a href="http://www.kiltbangalore.com">www.kiltbangalore.com</a></td>
</tr>
<tr>
<td>15</td>
<td>Government Tool Room and Training Centre (GTTC)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Karnataka State Coir Co-operatives Federation (KSCCF)</td>
<td><a href="http://www.karcoirfed.com">www.karcoirfed.com</a></td>
</tr>
</tbody>
</table>

*Source: Industries and Commerce Department, Govt. of Karnataka website [www.karnatakaindustry.gov.in](http://www.karnatakaindustry.gov.in), accessed between 23rd January, 2012 and 23rd February, 2012*
Of these Boards and Corporations, there are 3 key institutions that have experience undertaking Public Private Partnership (PPP) projects. These are KSIIDC, KSSIDC and KIADB. The following sections will provide a brief on these key institutions.

11.5 Karnataka State Industrial and Infrastructure Development Corporation (KSIIDC)

Established in 1964, Karnataka State Industrial & Infrastructure Development Corporation Limited (KSIIDC) has been greatly instrumental in the industrialisation of the State, especially in the large and medium sector. An important arm of the state in bringing industrial boom in various sectors, KSIIDC has assisted 135 start-up ventures through equity participation to the extent of Rs. 118.28 crores spread over the length and breadth of the State. KSIIDC has also extended financial assistance in the form of debt to core sector industries like Steel, Cement, Mining and Textiles and modern sector Industries like Information Technology, Aviation, Tele-communication and other infrastructure projects to the extent of around Rs. 2223 crores. KSIIDC has been instrumental in establishing Jindal Vijayanagar Limited (presently JSW Limited), Vikrant Tyres Limited, Karnataka Antibiotics and Pharmaceuticals Limited, to name a few.

Over the years, the KSIIDC has broken beyond its conventional roles and has initiated implementation of infrastructure projects. One of the most significant projects is the development of the Bengaluru International Airport at Devenahalli which was executed under the PPP mode. Additionally, KSIIDC has also been entrusted to implement projects of Bengaluru Airport Rail Link, development of Devanahalli Business Park and development of tourism projects across the state in collaboration with IL & FS.

11.6 Karnataka Industrial Areas Development Board (KIADB)

Karnataka Industrial Areas Development Board (KIADB) is a wholly owned infrastructure agency of Government of Karnataka, set up under Karnataka Industrial Areas Development Act of 1966. This Board functions as per statutory provisions, rules and regulations enacted there under. The Board comprises of senior government officers in their ex-officio capacities. The Board of members meet regularly to take decisions and monitor the functions. KIADB holds pride in being the first government organisation in Karnataka to obtain ISO 9001 certification in the year 1997.

The key objectives of KIADB are:
- Promote rapid and orderly development of industries in the state
- Assist in implementation of policies of Government within the purview of KIAD Act
- Facilitate in establishing infrastructure projects
- Function on “No Profit – No Loss” basis

The functions that KIADB performs are:
- Land acquisition and development of industrial areas in the state
- Provision of basic infrastructure in the industrial areas
- Land acquisition for Single Unit Complexes
- Land acquisition for Government agencies for their schemes and infrastructure projects

Till date, KIADB has formed 132 industrial areas spread over 40000 acres across the State, and acquired land for nearly 400 Single Unit Complexes ensuring balanced industrial development in all regions with well thought out infrastructure and unique features. Additionally, KIADB has envisaged
several innovative projects like Agro-Tech Parks, Apparel Parks, Food Parks, Auto Parks, Hardware Park, Bio-Tech Park, EPIPs, Sector Specific SEZs, and Growth Centres.

KIADB is also the implementing agency for the ambitions Suvarna Karnataka Development Corridor (SKDC) project.

11.7 Karnataka Small Scale Industrial Development Corporation (KSSIDC)

A positive programme for assistance of small-scale industries was initiated towards the end of 1954 on the basis of a suggestion made by the international planning team sponsored by the Ford Foundation at the request of Govt. of India. Further, on the basis of the recommendations of the Central Small Scale Industries Advisory Board, state level organisations, to assist the small scale industries for procurement of scarce raw materials establishment of industrial estates etc., have been set up in all states. KSSIDC is one of such Corporations, established on 29th April 1960. The registered office of the Company started functioning at Bangalore in the State of Karnataka. The Company framed comprehensive and well-defined Memorandum of Association and Articles of Association which permit the Corporation to take up any activity aimed at the rapid development of small-scale industry.

The Corporation's principal objective is the promotion and development of Small Industries in the State. Construction and utilisation of infrastructure, especially in backward areas, procurement and marketing of Raw Materials, technical support and assistance are means to reach the goals.

The specific functions it undertakes are:

- Land acquisition for industrial estates
- Procurement and distribution of raw materials
- Marketing assistance to SSIs
- Supply of machinery under hire purchase scheme
- Participation in exhibitions
Disclaimer

CRISIL Risk and Infrastructure Solutions Limited (CRIS) has taken due care and caution in preparation of this Report for Commerce and Industries Department, Government of Karnataka. This Report is based on the information / documents provided by the government agencies and/or information available publicly and/or obtained by CRIS from sources, which it considers reliable. CRIS does not guarantee the accuracy, adequacy or completeness of the information / documents / Report and is not responsible for any errors or omissions, or for the results obtained from the use of the same. The Report and results stated therein are subject to change. CRIS especially states that it has no financial liability whatsoever to the Company / users of this Report. This Report is strictly confidential and should not be reproduced or redistributed or communicated directly or indirectly in any form or published or copied in whole or in part, especially outside India, for any purpose.
About CRISIL Infrastructure Advisory

CRISIL Infrastructure Advisory is a division of CRISIL Risk and Infrastructure Solutions Limited, a 100% subsidiary of CRISIL Limited – India’s leading Ratings, Research, Risk and Policy Advisory Company.

CRISIL Infrastructure Advisory is India’s premier advisor focusing on policy issues, as well as commercial and contractual issues in the areas of transport, energy and urban infrastructure. We also provide support to international firms planning investments in India. Over a period of time, CRISIL Infrastructure Advisory has built a unique position for itself in these domains and is considered the preferred consultant by governments, multilateral agencies and private-sector clients. We have extended our operations beyond India and are present in other emerging markets in Africa, Middle East and South Asia.