



UTTARANCHAL: THE NEXT DESTINATION EXECUTIVE SUMMARY

Uttaranchal - the land of gods, the home of Himalayas and truly a paradise on earth, allures everyone from everywhere.

Uttaranchal's potential in key sectors such as Tourism and Hydro Power is well known. Its agro-climatic diversity offers excellent prospects for the development of high value adding Agribusiness Projects. In addition, the knowledge base of its people can be utilized to develop the IT Services Sector in the state. Bio technology has also been identified as an important sunrise sector, which can make significant contributions in the areas of agriculture, human and animal health, environment management and process industries.



This progressive, dynamic and forward looking state is turning a new page for investment and development. The new industrial policy and package of incentives for the development of industries, has set the path for Uttarakhand to attract large scale investments to develop projects.

The challenge in the case of Uttarakhand is to harness the untapped potential of the identified sectors and create adequate forward and backward linkages to ensure citizen empowerment and sustainable economic development. Furthermore substantial attention needs to be paid to the development of basic infrastructural facilities to ensure rapid industrial growth in the state as this is one of the major impediments to the state's progress.

Integrated Agribusiness



Like most Indian states, Uttarakhand, too is primarily an agrarian economy. Forestry, agriculture and allied activities like Animal Husbandry form the backbone of the agrarian economy of the state with more than **70 percent** of the total working population engaged in it.



The per capita landholding is very small i.e. per person cultivable area works out to about 0.8 ha. Uttaranchal is bestowed with varied climatic, geographical and topographical conditions and is highly conducive for producing a large number of food grain and horticultural crops.

Diversified Agriculture is the priority of the state government and technical and financial support is being extended to farmers to encourage diversification especially in the areas of Horticulture, Floriculture, Medicinal & Aromatic Plants, Apiculture and Sericulture. There exists a wide range of investment opportunities for some of the important sub sectors within the Integrated Agribusiness framework as of Uttaranchal such as:

- Rejuvenation of old orchards and establishment of fruits processing units.
- Setting up of post harvest infrastructure and distribution outlets.
- Establishment of ploy house and green house for production.
- Contract farming to improve supply chain.
- Processing of medicinal and aromatic plants.
- Preservation and storage facilities and quality control laboratories.
- Market identification and infrastructure auction center & sales outlets.
- Establishment of poly houses, micro irrigation projects, floriculture park and oil extraction processing units.
- Production of organic spices.
- Establishment of small & medium size Agro and Food Parks.
- F&V based wineries production units.
- Organic tea production and establishment of processing and packaging units.
- Development of the tea export market.
- Establishment and organization of cocoon market.
- Honey processing and packaging units.
- Establishment of wool processing, wool banks and wool auction centers.

There are also a large number of existing business opportunities in the state. The state has an established presence in the case of certain horticulture crops such as fruits, vegetables, medicinal & aromatic plants, flowers and spices etc. In case of such crops, the business opportunities are immense as the state is unique in having the required agro-climatic conditions. One major revenue source could be through enterprises that can market the processed & value added products of such crops and alternative products such as medicinal oil extracts, flower extracts, dried and processed spices etc.

Hence, the strategy for improvement of Horticulture in Uttaranchal should be an *implementation - oriented strategy* that would:



1. Identify high potential areas/segments in the horticulture sector where Uttaranchal is competitive.
2. Identify the gaps/constraints which are hindering growth and business viability.
3. Support initiatives to build an umbrella brand name for 'Produce of Uttaranchal' for food and agricultural products in the international market.

The three pronged strategy mentioned above needs to be enabled with suitable enterprise structures that would help in giving stability to the business venture. Such enterprise structures must take into account a “**Closed Loop Model**” which would address the total value chain and bring efficiency in the operational and cost aspects which has been explained in greater detail in the Investment Strategy Theme Paper for Uttaranchal.

The **Closed Loop Model** would primarily involve:

- Developing a demand-driven business model on the basis of demand supply analysis of the global & domestic markets
- Identifying, evaluating and negotiating with suitable partners - (input companies, off-takers and other institutions), to attract participation in the consortium.
- Devising a suitable financial model for the working of the business - will include structuring a financial model between the partners in the consortium and also syndicating the requisite finance from partner banks where required.

Certain other opportunities that can go a long way in the development of Horticulture in the State are as follows:

1. Spices such as chilli, ginger, turmeric and garlic that have an assured market both by the food processing sector as well as the pharmaceutical sector can be taken up for cultivation and specific companies that have interest in the off take of such products can be invited to form a consortium of farmers and marketers in order to make the proposal viable.
2. The scope of off season and exotic vegetables such as asparagus and broccoli can be enhanced on a large scale and suitable tie-ups with organized fruit and vegetable marketers can be done to ensure offtake and viability.
3. Efforts should be made in order to identify the most important medicinal plants like Lemon Grass and Mint etc. which would have assured off takes and can be grown on a large scale. These can then be promoted by securing appropriate linkages between the research institutions, farmer cooperatives and private enterprises engaged in the use of such products.
4. The state must promote gradation facilities in fruits & vegetables, spices and flowers which have a better marketing ability and a higher price realization.



5. Processing of fresh fruits & vegetables and spices.
6. Technology is of utmost important in the area of food processing and hence suitable concessions must be given if some technology is being imported into the country and has the potential to improve quality and economies of scale.
7. Success stories from other states should be studied and migration of ideas suitable to the agro-climatic regions and social practices of the state must be done.
8. Owing to the advantage of less use of chemical pesticide and the use of organic manure, the state has the potential for the development of organic seed production for crops such as fruits & vegetables, spices and tea.
9. Through contract farming, farmers in hilly areas, can be involved in the supply chain and the state can supply significant quantity of the produce.

Biotechnology Industry

The State of Uttarakhand has realized the importance of biotechnology and envisioned to deploy, use, exploit and leverage biotechnology as an effective tool for catalyzing accelerated economic growth by sustainably harnessing and converting its biowealth into economic wealth while preserving its biodiversity. With appropriate state incentives and policies, Uttarakhand can utilize these advantages to create a cohesive Biotechnology focus and a sustainable developmental effort in the State.

In line with the national average, 76.9 % of population in Uttarakhand is rural and majority of population is dependent on agri based products for subsistence. A more productive utilization of land resources and better human resource productivity are both a critical need and a huge opportunity for the state of Uttarakhand. With more than 75% of the land under cultivation & forestry it has inherent strengths in the field of **Agri-Biotechnology**. The State is poised to gain from judicious exploitation of its natural biodiversity.

Uttarakhand has realized the need for a concerted action towards harnessing the biotechnology potential of the state. The government has earmarked and committed a 1000 acre campus in the city of Pantnagar as its epicenter for a Biotech Park. A strong agri component of the biotech strategy and the fact that it has one of the finest and country's first agricultural University, make it the optimal location for nucleating the Biotech Development Program. The State has also launched the draft version of their Biotechnology policy which clearly identifies agricultural biotechnology as one of the key priority areas.



Leveraging location specific features (bio-diversity / forest cover / technology / human resource etc) will be the first step towards creating a cohesive Biotechnology focus in the State.

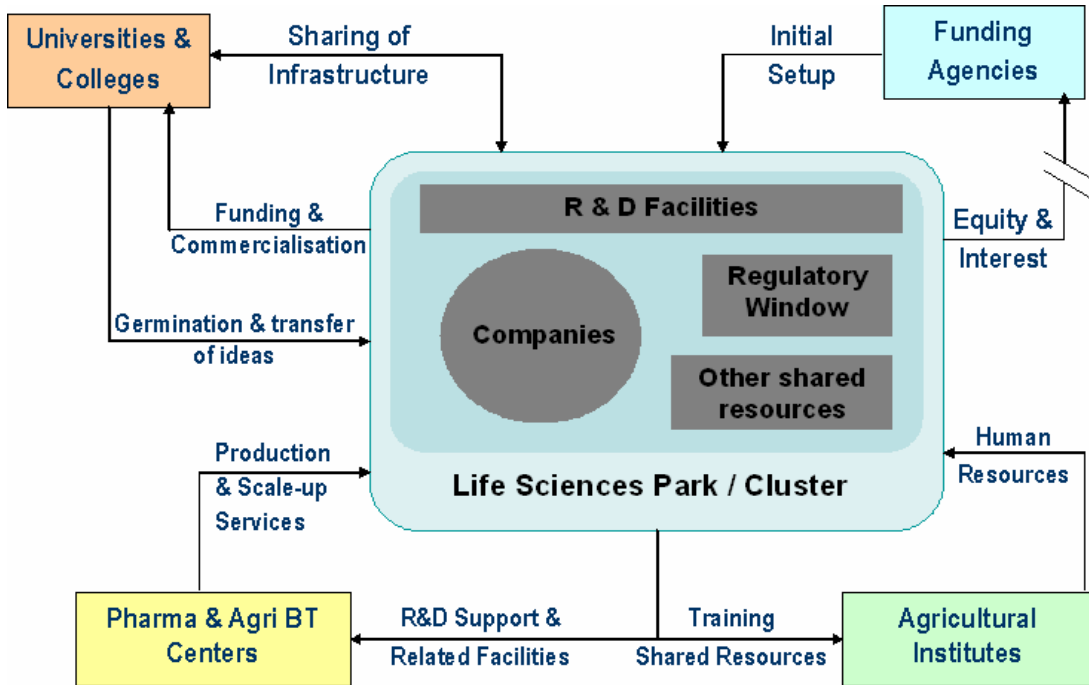
Conceptually a life sciences park / cluster is

“Planned infrastructure developed to facilitate business of R&D intensive high technology and science companies which brings them in close proximity with university, colleges, hospitals and other related entities.”

Potential Advantages of setting up a Biotech Park / Cluster:

- o Growth of new ventures: This is particularly relevant in Indian context with the government increasingly stressing on need to nurture entrepreneurship in this new technology areas
- o Transfer of technology and business skills between the university, colleges and businesses in the Research Park; and
- o **Promotion of technology-led economic development for the community at large, impacting the following**
 - ✓ Capital development including land, utilities and road development
 - ✓ High income growth through quality employment
 - ✓ Improved image inviting young talent and promoting science driven economy

Biotechnology is a capital intensive sector with long gestation periods for returns, so the right incentive structure (and infrastructure) and funding models should be evolved to make the industry sustainable in the short run. Additionally, it is important to uniquely identify the target positioning of every biotech park, tapping into the specific resources (natural or man-made) already existing in that area. Functioning of parks should be synergistically supported by other institutional and natural infrastructure of the region. We have discussed a working model developed by YES BANK depicting such coherent relationship. This can be used as a base model to evolve specific services based model for pharmaceutical / clinical technologies park.



Source: YES BANK Analysis

Based on international case studies, scale of the planned initiative, SWOT analysis for the state, basic benchmarking of biotechnology potential of the state and comparison vis-à-vis other state initiatives, following opportunity matrix emerges for the state.

Biotechnology Opportunity matrix for Uttaranchal Biotech Park:

| | | Park Technology Verticals | | | | | | | | |
|-----------------------|------------------------------|--|-----------|----------------------|-------------------------|--------|------|-----------------|---------------------|---------------------------------------|
| | | Pharmaceuticals | | PhytoPharmaceuticals | | Bio IT | | Health Care | | Other Agri Opportunities |
| | | Biotech | Chemistry | Therapeutics | Nutritional Supplements | Pharma | Agri | Medical Tourism | Alternative Healing | Herbal/ Floriculture/ Agri Processing |
| Services Based Zoning | Theme Parks | | | | | | | | | |
| | Incubator | | | | | | | | | |
| | Shared Services | | | | | | | | | |
| | Rentable Space | | | | | | | | | |
| | Greenfield | | | | | | | | | |
| | Land for Sale | | | | | | | | | |
| | Business Facilitation Centre | | | | | | | | | |
| | Training Services | General/ Specialised Training based on Tenant Feedback | | | | | | | | |

Services provided for the particular technology vertical



The state is in the process of setting up the proposed Biotech park and a regular feedback mechanism from the industry, pre-feasibility studies and opportunity analysis will help populate the different services needed in each of the focus verticals in the park. The matrix proposed here will help create a singular positioning for the park.

Infrastructure

The state of Uttaranchal needs to address the issue of connectivity both within the state and with other centers and markets. This would entail increasing the number of rail and air services to and from the State. Given the importance of the road networks in Uttaranchal, efforts need to be made to improve the quality of the same. Furthermore, to provide a boost to industrial development the state would need to ensure an effective telecommunication network, state of the art information technology infrastructure, uninterrupted supply of power and upgradation and modernization of existing industrial area infrastructure.

The government has placed significant emphasis on the issue of connectivity which is the crux for achieving the developmental targets and is making efforts to address the issue of upgradation, modernization and development of infrastructure. The transport sector in Uttaranchal does suffer from capacity shortages and inefficient usage of existing capacity. Emphasis has also been laid on encouraging maximum private sector participation in the same.

| <i>Area of Concern</i> | <i>Current Status</i> | <i>Proposed Project</i> |
|--------------------------------------|---|--|
| Adequate Transport facilities | Inadequate and low quality Transport facilities | |
| Roadways | Main mode of transportation in the state given its rugged terrain Need to upgrade all weather road network | <ul style="list-style-type: none"> • PPP for upgradation and construction of high quality all weather roads • Four laning and widening of Roads and National Highways • Development of an Electric Trolley based transport system |
| Railways | Upgradation of existing railway infrastructure required Further connections with major Indian cities through high speed trains | <ul style="list-style-type: none"> • Invite private participation to set up feeder projects near rail heads - e.g Agri Export Zones • Development of a system of |



| | | |
|---|---|--|
| <p>Airways</p> | <p>Needs to address the issue of air connectivity Two airports in Dehradun and PantNagar under AAI – Flights not operating at the PantNagar Airport though efforts are being made to extend the Pantnagar airstrip. Deccan Airways is launching its air service to Pantnagar in September this year Three airstrips –Efforts are being made to operationalise these airstrips. A terminal building has been constructed at the Gaucher airstrip</p> | <p>feeder road connections from railway stations</p> <ul style="list-style-type: none"> • Further upgradation and modernization of the Dehradun Airport • Expediting the process of modernisation and upgradation of the Pantnagar airport • Expediting the operationalisation of the three airstrips • Integrated development plans for areas around the airstrips/airports • Feeder Helicopter Services connecting Pantnagar/Dehradun airports to various tourist hill stations |
| <p>Power</p> | <p>Identified as one of the ‘GDP driver’ sectors Vast untapped potential for Hydropower</p> | <ul style="list-style-type: none"> • Invite more private sector participation to develop renewable energy projects |
| <p>Industrial Infrastructure</p> | <p>Industrial Estates have been set up in Haridwar and Pantnagar Establishment of an Integrated Industrial Estate in Sitarganj is in progress 14 industrial estates notified by the Government SEZ</p> | <ul style="list-style-type: none"> • Development of common infrastructure within and around the Industrial Estates |

Information Technology

In the state of Uttarakhand, Information Technology has tremendous potential in three main areas: **egovernance**, as a **means of reaching people** in inaccessible areas of the state and as a **business proposition**. The state has already done commendable work towards institutionalizing IT towards all the three areas. The government of Uttarakhand



has identified information technology as a tool both for **achieving rapid economic growth and for efficient governance and greater connectivity**. The vision is to create a rich knowledge based society together with developing Uttarakhand as an attractive destination for Information Technology. The key focus areas identified with respect to Information Technology in Uttarakhand are:

- Information Technology as a means to reach people
- Developing state of the art Information Technology Infrastructure
- Producing Skilled Information Technology Manpower
- Promoting Information Technology in the State

Uttarakhand is largely a state having hilly terrain, remote areas far from the capital, sparse population density, high literacy rates and large population being economically and socially poor. Given the rough, hilly terrain of the state of Uttarakhand, connectivity and accessibility have been major constraints for a vast majority of population residing in geographically dispersed and remote locations. As a result, the majority of transactions (like procuring goods, obtaining & submission of government forms etc.) entail high costs, are cumbersome, time-consuming and inefficient. This is true for transactions, both in the commercial as well as the government sectors and also for the community interactions with government departments and other institutions.

Hence enhanced connectivity coupled with useful and practical applications will not only serve the immediate needs of the state but also provide long term benefits like enhanced tourism and economic activities, increased external investments, more efficient provision of government services and expanded commercial operations thereby making the state an attractive destination for the external world.

The state of Uttarakhand would benefit from an IT related service system that provides immediate service benefit to its people, brings the government closer to its citizens and provides a linkage channel between citizens themselves and their link to the world. Uttarakhand is also poised to leverage maximum out of an IT Service System.

E governance has been a major initiative for the government of Uttarakhand and over the last three years the government has been progressively creating and expanding the e-governance facility.

The state of Uttarakhand also has great potential to develop as an Information Technology Centre and is an ideal base for the development of **Information Technology** and **Information Technology Enabled Services**. It has been identified by the government as one of the sunrise sectors. The state has a high literacy rate with skilled



manpower, clean environment and high quality educational institutions which all serve as a prerequisite for the development of this industry. IT and IT related services have been identified as a major thrust area of development in the state. The climatic condition is also very conducive for the development of this sector. The state offers following business prospects for the private sector-

- **Setting up of BPO and other IT units in IT Parks** - Upon necessary infrastructure being set in, the state offers a high level of literate manpower and opportunity to run these units at lower operating costs.
- **Setting up of CIC being operated by citizens** - The delivery of some government services and information can be a business opportunity for individual citizens/groups who will run the IT kiosks.
- **IT Manufacturing Units** - The lower operating costs coupled with fiscal benefits being offered form an attractive proposition for some of the IT Hardware companies to expand their base.
- **R&D Centers** - The major IT companies can consider setting up their R&D Centers in the state.

The government of Uttarakhand has made various efforts to provide the necessary thrust for the development and growth of this sector for it to become a 'GDP driver'. However one of the key issues that need to be addressed for the state to harness its full potential is the development and upgradation of basic as well as information technology related infrastructural facilities.

Tourism



There exists tremendous potential for the further development of the Tourism Industry in Uttarakhand. Together with the various traditional investment opportunities that exist in this sector there is also the scope to develop niche markets. Already a popular pilgrim destination, adventure, leisure and ecotourism can also be further developed in the state. Given that it is an ideal location for the development of alternative medicine and health care facilities, there also exists the possibility for the development of Health Tourism. It is the aim of the government to develop this sector as a key GDP driver with a focus on sustainable ecological development and citizen empowerment.

In order to fully harness the growth potential of the tourism industry in Uttarakhand a planned and integrated approach needs to be adopted. The main constraint facing the



sector is the tourism infrastructure which needs augmentation, modernization and upgradation for it to become a premier tourism destination. The development of state of the art infrastructure is also important to cater to and attract the high end tourist segment to the state. Issues of connectivity need to be addressed and special efforts need to be made to encourage and sustain private sector participation and investment within this sector.

Establishment of world class tourism infrastructure and facilities is one of the highest priorities of the government. To achieve this it has initiated overall planning and execution of schemes for the development, up-gradation and improvement of tourism infrastructure in different parts of the state. Not only infrastructure there have been changes taking place in the administrative set ups. The Tourism Development Board has been set up as the highest body to function as a Promoter, Adviser, Regulator and Licensing Authority for tourism development. Steps are being taken to protect and preserve the ecosystem and promote ecotourism within the state. The government is also actively encouraging private sector participation and investment for the development of this sector by putting in place the necessary fiscal and non fiscal structures. All these steps are likely to pay rich dividend in the coming years in terms of investments coming in tourism projects in the state but efforts also need to be made to ensure proper implementation and commercial sustainability of these projects. The Central Government has also released Rs 35 crores for the development of Tourism in Uttaranchal.

Given the huge potential of this sector in Uttaranchal, while making efforts towards the growth of tourism and scaling up of incentives; there is also the need to ensure that this growth is geared towards citizen empowerment and commercial and ecological sustainability. A focus on nature friendly technologies as well as waste management policies would ensure that the ecosystems within the state are not harmed and the natural beauty of the state preserved



while expansion in tourism development takes place. In the context of Uttaranchal it is essential to ensure that there are adequate flows of benefits to the local community through ample backward and forward linkages such as additional employment for the local community which would result in income generation within an ecofriendly framework, skill training, community development and micro financing.



To access the tourism readiness of the State a holistic view of the entire tourism infrastructure required for a comfortable tourist experience is essential. The following table presents an indicative overview of the tourism readiness in Uttarakhand and associated recommendations to alleviate the problems associated with infrastructure across the region through specific project development using Public-Private-Partnerships (PPP).

Overview of Tourism Readiness in Uttarakhand

| <i>Area of Concern</i> | <i>Current Status</i> | <i>Proposed Project</i> |
|--|--|--|
| Access to Information | Efforts have been made in this direction. Need for more aggressive marketing of circuits/districts | Internet marketing Create a web portal for marketing the state, use existing websites |
| Ease of Online Booking, Payments & Reservations | Presently online booking, reservation and payment facilities are not extensive for domestic or international tourists. Lack of adequate tourism infrastructure especially the reservation facilities for accommodation and transportation | Web portal for online booking, reservations and payment (Refer Annexure 2) |
| Transport facilities | Inadequate and low quality Transport facilities | |
| Roadways | Main mode of transportation in the state Need to upgrade all weather road network. Improve connectivity with remote and high altitude regions | PPP for upgradation and construction of high quality all weather roads PPP for upgradation of facilities on important tourist routes |
| Railways | Upgradation of existing railway infrastructure required. Connection to major Indian cities with high speed trains | Invite private participation to set up feeder projects near rail heads – e.g Agri Export Zones Development of a system of feeder road connections from railway stations |
| Airways | Needs to address the issue of air connectivity Two airports in Dehradun and PantNagar under AAI – Flights not operating at the PantNagar Airport though efforts are being made to extend the Pantnagar airstrip. Deccan Airways is launching its air service to Pantnagar in September this year. | Expediting the process of modernisation and upgradation of the Pantnagar airport Expediting the operationalisation of the three airstrips Integrated development plans for areas around the airstrips/airports Feeder Helicopter Services |



| | | |
|---|--|--|
| | Three airstrips – Terminal building has been constructed at the Gaucher airstrip | connecting Pantnagar/Dehradun airports to various tourist hill stations. |
| Provision of other Facilities | | |
| Drinking Water Facilities | Need to address the problem of shortage of water | Watershed Management Rain Water Harvesting |
| Development of Hotels | Development of tourism accommodation required in the state | Construction of high value (five star) as well as budget accommodation and two and three star hotels Operation and maintenance of such facilities |
| Adventure Tourism | Vast scope for the development of Adventure Tourism in the state Need to maintain safety standards in the region. | Creation of onsite facilities for tourists in terms of accommodation, restaurant and resort facilities Development and upgradation of Tourism infrastructure Insurance for adventure activities. |
| Interaction with local community - Rural Tourism | Enhanced involvement of local community should be promoted | Modernization, upgradation and development of tourism infrastructure Integrated marketing of ecotourism Construction and maintenance of onsite facilities such as restaurants, entertainment and recreation and destination management in the form of providing clean water supply, waste management among others. Corporatisation of small scale enterprises through the implementation of principles of Micro Financing |



Based on the above, the main issues and an indicative strategy is given for integrated development of tourism in the state. The Government can play a catalytic role in this, especially during the initial years, both by providing fiscal incentives and participation through Public-Private-Partnerships. Banks and financial institutions can also play a key role in ensuring success of this process.

Conclusion

There exist a vast number of investment and business opportunities in the state of Uttaranchal. Though the social and political environment is conducive for industrial development, the State does not have many industrial units. The government has identified a number of **sunrise sectors** such as Information Technology, Biotechnology, Agro Based and Food Processing, Floriculture and more as potential areas of growth where it has inherent advantages and untapped potential.

The challenge in the case of Uttaranchal is to harness the untapped potential of the identified sectors and create adequate forward and backward linkages to ensure citizen empowerment and sustainable economic development. Furthermore substantial attention needs to be paid to the development of basic infrastructural facilities to ensure rapid industrial growth in the state as this is one of the major impediments to the state's progress.

Based on its belief in Public-Private Partnerships, the Government of Uttaranchal has started inviting private sector participation/investments and encouraging the creation of long term partnerships in a number of areas such as Infrastructure, Information Technology, Tourism, Biotechnology and Power among others with it playing the role of the facilitator. A number of fiscal and non fiscal incentives and institutional frameworks to ease the process for private sector participation have been introduced by the government. The state has also initiated specific project development ventures (in the form of companies under joint venture) to develop infrastructure projects using Public-Private-Partnerships (PPP).