

# DRAFT OF BIOTECHNOLOGY POLICY - 2005

## I. BACKGROUND

Biotechnology has made significant contributions to the global economy in the fields of agriculture, human and animal healthcare, environment management and processing industry. It is recognized as a rapidly emerging and far-reaching technology with the potential of contributing to next wave of technological revolution as radical and even more pervasive than that brought about by information technology. Employment generation, intellectual wealth creation, expanding entrepreneurial opportunities, augmenting industrial growth constitute a few of the compelling factors that warrant a focused approach for this sector. The Indian biotechnology sector is gaining global visibility and is being tracked for emerging investment opportunities.

Recognizing the potential, the Government of Orissa has identified biotechnology as a priority area. The State is advantageously positioned to harness biotechnology applications owing to its rich mineral and bio-resources. The Chilika lake, Asia's largest brackish water lake, houses a unique ecosystem comprising aquatic and terrestrial vegetation, migratory and resident birds, fishery resources and terrestrial wild life. It has a long coastline covering 480 km. The State has a rich floristic wealth with an estimated 2754 plant species. Out of the estimated 1200 orchid species in India, 129 rare species are reported to occur exclusively in Orissa. Forests cover about 30% of the geographical area of the State. The biodiversity rich areas of the state include Similipal hills, Gandhamardan hills, Mahendragiri hills, Bhitarkanika, Sunabeda Plateau, Chilika lake and Malayagiri.

The mangrove flora in the Orissa coast is more prolific than those in the Sundarbans, Cauveri and Godavari basins and Andaman and Nicobar islands, with 63 out of the 65 species in India found there.

The state houses many scientific institutes and universities working on various aspects of biodiversity and biotechnology, contributing to generation of wealth of knowledge about the distribution, richness, sustainable utilization and value addition of these resources. These are also sources for highly educated skilled manpower base and cradles for potential entrepreneurs. The State has a well-developed social infrastructure such as and physical infrastructure such as road, rail and communication networks.

The Government of Orissa has already taken many initiatives for promoting biotechnology in the state. It had brought out the Biotechnology Vision Document in 2001 for the 10th five year plan. It has also declared biotechnology as a priority sector in its Industrial Policy Resolution (IPR-2001). These initiatives would be expanded and given major thrust as part of the Biotechnology Policy.

## 2. OBJECTIVES

The biotech policy aims at integrating the existing achievements in research and industry and strengthening and expanding the existing base to maximize the benefits for development of the state through the following:

1. Prioritising the thrust areas for basic and applied research and technology development
2. Promoting innovation in R&D by providing financial and infrastructural support and by encouraging public-private partnership for R&D.

3. Promoting development of the industry by providing quality infrastructure and an enabling environment for sustained growth and international competitiveness.
4. Development of human resources in various areas of biotechnology .
5. Employment generation.
6. Capacity building of IPR and biosafety.
7. Providing financial support, and incentives to industry.
8. Providing an institutional framework and well defined modalities to achieve the above objectives.

### 3. PRIORITY AREAS

Basic and applied research and technology development would be both “ for public good” and “for profit”. Areas for applied research will be identified in consultation with industry. Such projects both short term and long term will be implemented in association with the industry to ensure time targeted development and commercialization of the products and processes. Priority areas in individual sectors would be assessed from time to time to ensure optimal utilization of existing resources for biotechnology applications.

#### 3.1 Agriculture biotechnology

Biotechnology intervention is necessary to make agriculture competitive and remunerative in the face of challenges such as declining availability of arable land; low productivity of crops, livestock and fisheries; production losses due to biotic (insects and other pests, weeds) and abiotic (salinity, drought, alkalinity) stresses; post-harvest crop damage in storage and transportation; and declining availability of water as an agricultural input.

The following priority areas have been identified.

1. Development of economically viable horticulture plants by clonal propagation.
2. Improvement of floriculture using, micro-propagation and macro propagation.
3. Setting up of regional hardening facilities for tissue culture plantlets in multiple locations to promote entrepreneurship and involvement at grass root level.
4. Cultivation of elite medicinal and aromatic plants for sustained supply of raw materials to the units engaged in extraction and production of value added products.
5. Development of molecular markers particularly for identification of elite plant varieties having attributes like resistance to specific diseases.
6. Organic farming using non chemical biotech inputs like biofertilisers and biopesticides for rural and economic development of the state given the higher realization of such products in the international market.
7. Mass planting of trees of economic importance which grow easily in Orissa's climatic and soil conditions but by sourcing efficient technologies and providing financial support and incentives.  
Agro-forestry plantation (bamboo, teak, eucalyptus, pine etc.) to replace denuded forests for paper and pulp industry.
8. Establishments of gene-banks and germplasm collections for maintenance and propagation of superior quality crops and plants of special value.
9. Establishment of clonal seed orchards for mass production of improved seed
10. Development of transgenic crops standards

The yields of rice, pulses and oilseeds have reached the stage of saturation in Orissa. Yields can be improved either by restoration of hybrid vigour, or by genetic transformation. Similarly the yield of vegetables and fruits can also be improved.

Crop productivity in the non-coastal areas of the State affected by drought and high temperature can be improved by engineering the metabolic properties. Similarly the yield of oils and other products from non-timber species of trees such as trees like *Azadiracta indica* (neem) and *Madhuca latifolia* (Mahua) can be enhanced through gene transfer.

### **3.2 Medical biotechnology**

Malaria, filariasis, cancer, tuberculosis and malnutrition pose a major burden of disease in the State as also in many other parts of the country. Further, Orissa is prone to several natural disasters including cyclones, floods and droughts following which out-break of several epidemics is common.

The medical biotechnology would be maximally utilized to develop affordable tools for prevention, detection and treatment of such diseases, particularly those which affect women, children and the poor. The priority areas would include.

1. Supporting basic and applied research in molecular and cellular biology, genomics, proteomics, system biology, stem cell biology, RNA interference, host response and new platform technologies.
2. Development of products such as vaccines, diagnostics, new therapies based on cell and tissue replacement, therapeutic antibodies, herbal and other, plant based medicines, nucleic acids, therapeutics, drug and vaccine delivery systems and new anti microbial agents.
3. Screening of native herbs for identification of bioactive molecules and extracts known in traditional systems for value added therapeutics products, their characterization and safety assessment in vitro and in vivo.
4. Development of immunodiagnostics as well as molecular diagnostic kits for diseases and genetically inherited disorders and diseases prevalent in the state. Local production of reagents required for the diagnostic kits will be supported.
5. The State has well established public health machinery and invaluable data on disease incidence, prevalence and management to support clinical trials. These trials could be taken up in collaboration with biotechnology companies internationally norms.

### **3.3 Industrial biotechnology**

The priority areas in industrial biotechnology would be processes to convert renewable resources rich in vegetable oils and sugars and abundantly available in the state into a wide variety of chemical substances such as fine and bulk chemicals, pharmaceuticals, biocolorants, solvents, bioplastics, vitamins, food additives and biofuels.

### **3.4 Animal biotechnology**

Improvement, maintenance and propagation of superior quality livestock and products from them such as milk, meat and eggs would be taken up through programmes such as:

1. Establishment of cell lines and sperm banking facilities for maintenance and propagation of superior quality livestock.
2. Rapid multiplication of livestock through introduction of advanced embryo transfer techniques.
3. Genetic improvement of local breeds of cows, buffaloes, goat and sheep.

4. Development of diagnostics and vaccines for major livestock diseases such as foot and mouth disease, rabies, haemorrhage, septicaemia, anthrax etc.
5. Development and application of methods for enhancing milk yields in cattle.
6. Biotechnological interventions for increasing shelf life of meat, milk and milk products.

### **3.5 Aquaculture and marine biotechnology**

The state has economically important aquatic and marine resources such as a variety of important fish, prawns and microorganisms. Use of biotechnology will be continued for achieving disease resistance, enhanced productivity, fertility and reproductive growth, exploration of marine organisms for novel genes and gene products, biopolymers, novel enzymes, therapeutic products, pollution monitoring etc. The priority areas would include:

1. Development of better methods for pisciculture for commercially important fish such as katla, rohu, magur etc.
2. Development of scientific methods of cultivation of fresh water and brackish water prawns for higher yields and better quality.
3. Diagnostics for bacterial and viral diseases affecting fish and prawn.
4. Identification and cultivation of marine flora and fauna for production of value added products.

### **3.6 Environmental biotechnology**

Contamination by heavy metal ions from mining has left a large areas of land unfit for cultivation. Rapid urbanization in the last few years has also led to serious environmental pollution of air, water and soil.

A major thrust would be given to development and application of biotechnology to promote cost-effective and clean alternatives for environmental risk assessment and quality monitoring, eco-restoration of degraded habitats, conversion of toxic recalcitrant chemicals into harmless by-products, phyto and bioremediation of waste land, effluent treatment, value-added products from biomass, control of biological invasion, greener process technologies and effective ex situ conservation strategies.

### **3.7 Bioresources**

The State has a rich biodiversity. The animal, microbial, marine and plant resources are large and diverse and offer great opportunity for use of biotechnological interventions for their conservation and conversion to commercially useful products and processes in a sustainable manner. The following activities aimed at mapping of biosources and their sustainable utilization would be strengthened.

1. Inventorisation and mapping of the unique bioresources in the state, including mangroves, forest, marine and fresh water resources. This will be done with the help of universities, undergraduate colleges, schools, research institutions, NGOs and private companies.
2. Molecular characterization and bio-prospecting of flora and fauna from these resources for development of novel therapeutic leads as well as other natural compounds for industrial use. The rich traditional knowledge base among the rural and tribal people on the use of biodiversity (including medicinal uses of plants) would be harnessed for bioprospecting.

### **3.8 Alternative sources of energy**

The State is advantageously placed to harness alternative sources of energy such as biomass for power generation, bioethanol and biodiesel. The large wastelands could be reclaimed by cultivation of

low lignin pulp wood for biomass generation or other species such as *Jatropha*, *Pongamia*, *Salvadora* etc., for biodiesel production. The area also offers good potential for employment generation and rural development. Major initiatives are proposed with involvement of industry in the following areas.

1. Large scale cultivation of crops as alternative sources of bio-fuels and bio-energy particularly utilizing the wastelands.
2. Development of viable technologies for their conversion to biofuels.
3. Development of microbial fermentation technologies for conversion of agricultural wastes into bioethanol.

The State Government proposes to initiate steps to promote comprehensive R&D development in related areas such as industry, HRD, infrastructure development financial support and incentives.

#### **4. INNOVATION IN RESEARCH AND DEVELOPMENT**

1. Government of Orissa will offer specific one time grants for setting up or upgrading R&D facilities in universities in the area of biotechnology.
2. Some of the existing universities/ institutions already active in research will be provided adequate support in pursuit of excellence in their key strength in biotechnology including agribiotech, marine biotech and healthcare. These institutes will be designated as Centres of Excellence and would constitute a global advisory network to foster cutting edge research.
3. The State Government will encourage universities and institutions to build an active network with national and international institutes of repute.
4. The State Government will promote setting up of autonomous institutes under private participation for achieving excellence in specialized areas.
5. Core facilities in specialized areas of Genomics, Proteomics and Bioinformatics would be set up to facilitate research in the latest trends in biotechnology.
6. The Government will encourage universities and health institutes to take up contract research for industry and public agencies.
7. To promote public private partnership and ensure better coordination among different R & D organizations, the Government will extend support to the research institutes for entering into partnerships with private companies for development and transfer of technology so that the fruits of research could reach the people faster.

#### **5. INFRASTRUCTURE FOR THE INDUSTRY**

1. The State Government will provide quality infrastructure for incubation of technologies and promotion of biotech industries by setting one or more biotechnology parks. The parks would provide equipment, common facilities and technical, financial consultancy and managerial support to the entrepreneurs for undertaking production, research and scale up in a cost effective manner.
2. The government may take equity stakes in such projects by providing funds directly or for land allotted for the projects.
3. Biotech parks will promote closer interaction of the units housed in them with the research institutions and universities in the state, and help in commercialization of the technologies developed in the institutions.
4. The parks will facilitate all statutory and regulatory approvals.

5. The first Biotechnology Park is proposed to be developed at Patrapada, Bhubaneswar and the marine Biotechnology Park at Chandrabhaga near Konark.

## 6. HUMAN RESOURCE DEVELOPMENT

The life science and biotechnology sector is characterized by dynamic changes in the flow of new ideas and concepts in development of new tools for research. Human resource is the key to development in this knowledge driven industry. The Government of Orissa will continuously strive for development of its human resources in all facets.

A number of postgraduate and undergraduate courses in the area of biotechnology and allied sciences have been introduced in various universities in the state. Some of the institutes and universities are also offering doctoral programmes. The major institutes are:

1. Institute of Life Sciences, Bhubaneswar,
2. Central Rice Research Institute, Bidyadharpur, Cuttack,
3. Regional Plant Resources Centre, Bhubaneswar,
4. Central Institute of Fresh Water Aquaculture, Kausalya Ganga,
5. Regional Research Laboratory, Bhubaneswar,
6. Regional Medical Research Centre, Bhubaneswar
7. Central Tuber Crop Research Institute, Bhubaneswar,
8. Orissa University of Agriculture and Technology, Bhubaneswar,
9. Utkal University, Bhubaneswar,
10. Sambalpur University, Sambalpur
11. Biju Patnaik University of Technology (BPUT), Berhampur
12. Berhampur University, Berhampur,
13. SCB Medical College, Cuttack,
14. MKCG Medical College, Berhampur,
15. VSS Medical College, Burla.

The following initiatives are proposed to keep pace with the increasing demand for skilled manpower in the public and private sectors.

1. Introduction of additional courses at the graduate and post graduate levels.
2. Upgradation of the existing infrastructure and improving the course content, in consultation with DBT, Government of India.
3. Enabling research institutes, colleges, universities, NGOs and private organizations to undertake technicians training courses for technicians
4. Introduction of specialized short term courses in business management and entrepreneurship development for the biotech industry.
5. Introduction of specialized courses on bio-safety, bio-ethics, intellectual property rights (IPR) to enhance competitiveness of biotechnology industry.

## 7. INTELLECTUAL PROPERTY RIGHTS

Success of biotech industry depends on protection of the intellectual property resulting from innovation. The Government of Orissa will extend financial support to industry and research institutes for protection of IPR through filing of patents.

A patent information centre will be set up with access to all relevant databases. This centre will be converted to state level IPR center in due course.

## **8. BIOSAFETY**

The increasing awareness on the possibilities of exploiting genetically modified organisms (GMOs) and products derived from them for commercial purposes has also led to considerable concern about their biosafety. The state government would ensure setting up of adequate institutional mechanisms for implementation as well as monitoring of GMO development and applications programmes as per the National Biosafety guidelines.

## **9. SOCIAL AND RURAL DEVELOPMENT**

The Government of Orissa will promote simple, low cost agricultural biotechnologies to generate of rural employment. The following initiatives are proposed.

1. Activities such as mushroom cultivation, hardening facilities for plant tissue culture, vermicomposting and organic farming will be promoted with the objective of generating employment and to improve the quality of farm produce.
2. Separate financial support will be provided along with NABARD for such projects.
3. Support will be given to farmers cultivating medicinal plants and tissue culture raised plants under contract with medicinal plant extraction units and tissue culture units.
4. NGOs and private institutes will be encouraged to conduct farmers' training programmes to educate them on the benefits of agri-biotechnology.

## **10. INCENTIVES AND FINANCIAL SUPPORT**

To be eligible for incentives and support, a biotechnology unit would mean a company engaged in any of the following activities:

- i. Research and development and/or manufacture of living organisms and/or products or processes derived by using specific living systems.
- ii. Bioinformatics
- iii. Clinical trials and contract research

The biotechnology units in the State will be eligible for the following incentives:

### **10.1 Subsidies**

#### **10.1.1 Capital investment**

- i. All biotech units in the State will be eligible for capital investment subsidy at the rate of 20% to a limit of Rs. 20 lakhs.
- ii. Units with capital investment of Rs. 5 crores and above will be eligible for capital investment subsidy at the rate of 15% to a limit of Rs. 150 lakhs
- iii. Units in an incubator or contract research organisations will get an additional 5% capital investment subsidy.

#### **10.1.2 Interest**

- i. All biotech units will be eligible for a subsidy of 5% per annum on the rate of interest on the term loans availed from a recognized Financial Institutions/Banks for a period of five years from the date of completion of the project (If the rate of interest is 16 percent, the effective rate of interest after interest subsidy would be (16-5) percent per annum i.e., 11 %).

ii. The units established in the districts Kalahandi, Naupada, Bolangir, Sonepur, Koraput, Malkangiri, Rayagada, Nawarangpur, Gajapati and Deogarh will get additional interest subsidy at the rate of 5% per annum on the rate of interest of the term loan or Rs. 5 lakhs whichever is less, as an incentive for backward area development.

### **10.1.3 Employment generation**

i. An eligible biotech unit in the large and medium sector will be entitled to reimbursement of 50% of the expenditure incurred by it for paying its contribution towards Employees State Insurance (ESI) and Employees Provident Fund (EPF) depending on the location of the unit for 5 and 7 years for units in Zone A and Zone B respectively defined in Industrial Policy 2001, Government of Orissa.

ii. An eligible unit in the small-scale sector will be entitled to reimbursement of 75% of the expenditure incurred by it for paying its contribution towards Employees State Insurance (ESI) and Employees Provident Fund (EPF) scheme for 5 and 7 years for units in Zone A and Zone B respectively.

iii. The reimbursement of the expenditure prescribed at 'i' and 'ii' above will be payable annually subject to the condition that the unit has paid its contribution towards ESI and EPF on due dates.

## **10.2 Tax exemption**

### **10.2.1 Value added taxes (VAT)**

i. Exemption of VAT on raw materials, spare parts, machinery and packaging material will be made available for a period of 7 years.

ii. Exemption of VAT on all biotech products will be available for a period of 10 years.

### **10.2.2 Other taxes**

i. Exemption of entry tax on all inputs and capital goods including captive generation sets will be made available to all biotech units during the project implementation stage for a maximum period of 5 years.

ii. All biotech parks including the units therein will be excluded from the tax regime (including professional tax) of the municipal and other local authorities, provided, the park management undertakes to maintain the infrastructure of the biotech park.

## **10.3 Financial support**

### **10.3.1 IPR protection**

State Government will provide financial assistance to entrepreneurs for filing as well as a renewal for the first year of patents to the extent of 50% of the total expenditure up to maximum of Rs. 5 lakhs.

### **10.3.2 Quality certification**

The biotech units will be provided a 50% subsidy for obtaining quality certification from B.I.S. and other internationally recognized institutions subject to a maximum of Rs. 2.00 lakhs.

### **10.3.3 Travel assistance**

All post graduates or doctorates in biotechnology, biochemistry, microbiology or life sciences will be classified as technical entrepreneurs and can avail of travel assistance to go abroad for business development, interaction with other biotech companies or for training. This assistance can only be availed of by those sponsored by the Department of Science and Technology, Government of Orissa.

The scale of assistance will be as under:

1st year	Rs. 20,000/-
2nd year	Rs. 15,000/-
3rd year	Rs. 10,000/-



#### 10.4 Power Supply

- i. All biotech industries will be exempt from statutory power cuts.
- ii. Industrial power tariff will be applicable to the biotech industry.
- iii. Agri based biotechnology units will be treated as agricultural consumer for the purpose of levy of power tariff.
- iv. All biotech units will be exempt from electricity duty for a period of 5 years from commencement of commercial production.

#### 10.5 Water supply

- i. All biotech units will get water at a concessional tariff of 50% under the provisions of the Irrigation Act for a period of five years.
- ii. The units in the biotech park will have guaranteed municipal water supply.

#### 10.6 Land

- i. Government land earmarked for the Land Bank Scheme and other Government land wherever available as well as Biotechnology Parks will be allotted for new biotech units at pre-determined concessional rates as notified from time to time. The following rates for Government land shall apply until further orders.

Category	Rate for land located within Municipal/NAC Area (Rs. per acre)	Rate of Land located outside Municipal/ NAC Area (Rs. per acre)	Ground Rent
Zone-A*	3,00,000	1,00,000	0.25% of the Land Value
Zone-B*	1,00,000	25,000	0.25% of the Land Value

\*As per Industrial Policy 2001, Government of Orissa

- ii. An eligible industrial unit irrespective of its location will be entitled to exemption from payment of stamp duty and registration fee required for the purpose of registration of documents within the State relating to purchase/acquisition of land and buildings for setting up of the approved projects.
- iii. Biotech units will be allowed twice the admissible floor area ratio.

#### 10.7 Labour concessions

- i. General permission will be accorded to the biotech industry to run a three-shift operation (subject to Government of India concurrence).
- ii. A system of "Self-Certification" shall be introduced for labour related compliance of routine nature in the biotech park in consultation with the Labour Commissioner, Orissa. The system of inspection will also be rationalized in terms of the recommendations of Government of India.
- iii. Flexibility in the opening and closing times and in the weekly holiday would be permitted to biotech units. The units will also be exempt from provisions of Chapter VI of Factories Act 1948 on working hours of adults).
- iv. Biotech units would be exempt from the provisions of Contract Labour Act 1970, in so far as non-core activities are concerned (with concurrence of Government of India).
- v. The State Level Apex Body constituted under the Industrial Policy 2001, Government of Orissa to act as Ombudsman for labour related issues in the State will set up an exclusive Special Industrial Tribunals for Biotech Parks to give top priority to the settlement of disputes that may arise in units located in the Biotech Parks.

- vi. Biotechnology shall be declared as a "Public Utility Service" for the purpose of application of provisions under Chapter-V of the I.D. Act 1947.

#### **10.8 Government purchases**

Selected biotechnology products including the following will be included in the list of store items reserved for exclusive purchase from the companies manufacturing the products in state.

- i. Biopesticides
- ii. Biofertilizers
- iii. Plant tissue culture
- iv. Diagnostics
- v. Vaccines
- vi. Therapeutics

This list of products can be reviewed and updated from time to time.

Local small-scale biotech units will enjoy a price preference of 5% over local medium or large industries in state government purchases. Any small scale biotech unit having ISO or BIS Certification for its products will get an additional price preference of 3% or 2% respectively.

The units in any biotech park will be exempt from depositing earnest money in State Government tenders.

#### **10.9 Venture capital**

To promote biotech activities in the State, Government of Orissa, will set up a Biotechnology Development Fund, with an initial corpus of Rs. 50 crores. The fund will be utilized for developing biotechnology industry in the State, ensuring due priority for the units in Biotechnology Parks.

#### **10.10 Single window clearance**

- i. Government will constitute a High Level Clearance Authority under the Chairmanship of the Chief Minister consisting of such other ex-officio members, under The Orissa Industries (Facilitation) Act, 2004 for acting as a single window clearance for all projects in the biotech park.
- ii. The Authority under this section shall:
  - (a) meet at such times and places and shall adopt such procedures to transact its business as may be prescribed;
  - (b) examine the proposals brought before it, for setting up biotech units; and
  - (c) take decisions and communicate its decisions to the entrepreneurs and the Departments or the Authorities concerned within the prescribed time limit of 30 days.
- iii. Every Department or Authority concerned, shall issue the required clearances after processing the application as required under the applicable law within the specified time limit and in case of failure to issue the required clearances within the specified time limit, such clearances shall be deemed to have been issued and the entrepreneurs may proceed with the implementation of the project.
- iv. The authority shall consist of the following members, namely:
  - (a) Chief Secretary to Government;
  - (b) The Secretaries to Government in charge of Industries, Science and Technology, Finance, Labour, Local administration, Revenue, Taxes, Irrigation, Power and Forests departments;
  - (c) Managing Director, Industrial Development Corporation Ltd. (IDCO);
  - (d) Managing Director, Industrial Promotion and Investment Corporation of Orissa Ltd. (IPICOL);
  - (e) Director of Industries and Commerce;

- (f) Chairman, Orissa State Electricity Board;
- (g) Chief Town Planner;
- (h) Chairman, Orissa State Pollution Control Board;
- (i) Chairman, Orissa State Financial Corporation;
- (j) Chairman, Orissa Small Industries Corporation;
- (k) Chief Electrical Inspector;
- (l) Director of Factories and Boilers;
- (m) Director of Mining and Geology;
- (n) Director of Health Services
- (o) Chairman/CEO, Biotech Park

#### **10.11 Miscellaneous**

- i. All the incentives applicable to general industries would also be applicable to biotech units.
- ii. All incentives could be availed on initiation of the proposed activity/production.

### **11. INSTITUTIONAL FRAMEWORK FOR POLICY IMPLEMENTATION**

To realize the goals set in the policy the State Government has constituted a State Biotechnology Board (SBB) under the Chairmanship of Chief Minister and a State Level Implementation Committee (SLIC), under the Chairmanship of Chief Secretary.

1. The State Biotechnology Board (SBB) would facilitate proper and timely implementation of this policy, and will ensure social and economic benefits of biotechnology are made available widely.

It will act in a manner so that the biotechnology industry in the State will retain its competitive edge at all times. It will liaise with the Central Government wherever required.

To foster public-private partnership, the state Government will set up a special Biotechnology Development Fund with an initial corpus of Rs.50 crores, with private collaboration with the objective of funding various ventures. The fund can be further augmented by grants and donations from Indian and overseas nationals and companies.

The committee will also be responsible for reassessment of priority areas for growth from time to time.

2. The SLIC will be responsible for effective utilization of the Biotech Development Fund and will act as a think tank and key advisor on diverse policy related issues.

It will identify key biotechnology areas for investments in research and technology development as is necessary for the State.

It will promote research in the emerging and nascent technologies by inviting proposals from different institutions and industries and providing financial assistance.

The SLIC will help the State in creating greater public awareness issues arising which impinge on aspects of culture, morality, ethics, economics etc.

The SLIC will setup a Core Technical Group for evaluation of the projects to be set up in the biotech parks and for disbursement of the subsidies.

(Source : [www.orissagov.nic.in](http://www.orissagov.nic.in))