



BIOTECH POLICY OF UP-2014

DEPARTMENT OF SCIENCE & TECHNOLOGY

Government of Uttar Pradesh

BIOTECH POLICY OF U.P. -2014

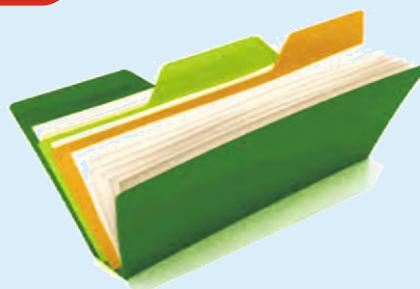


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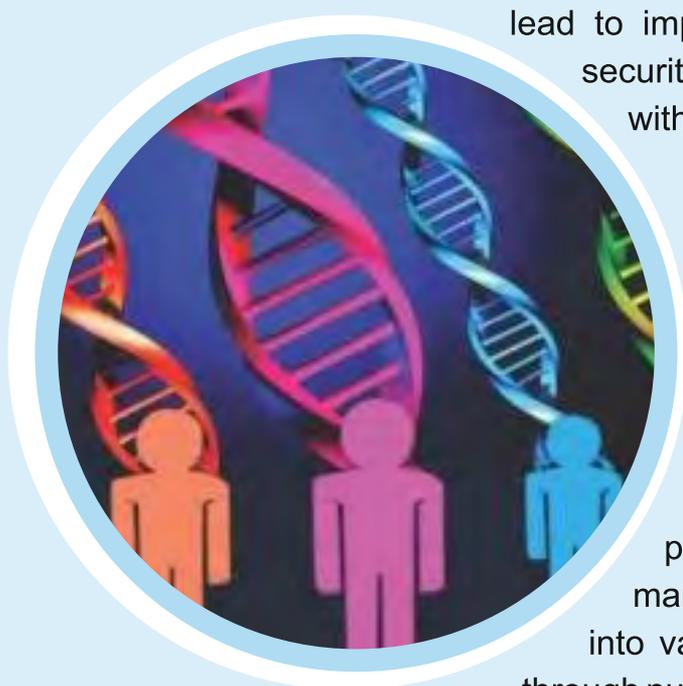
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1.0 PREAMBLE

Biotechnology is defined as the application of scientific and engineering principles for the processing of materials by biological agents to provide goods and services. It can be classified into different fields such as medical biotechnology, ecological biotechnology, bioprocess, pharmaceutical, industrial biotechnology and farming biotechnology, etc. Biotechnology seems to take the sudden biological new revolution. The importance of biotechnology has been recognized world over. Developed countries took initiative and invested in generating knowledge, have taken lead in the development of biotechnology.

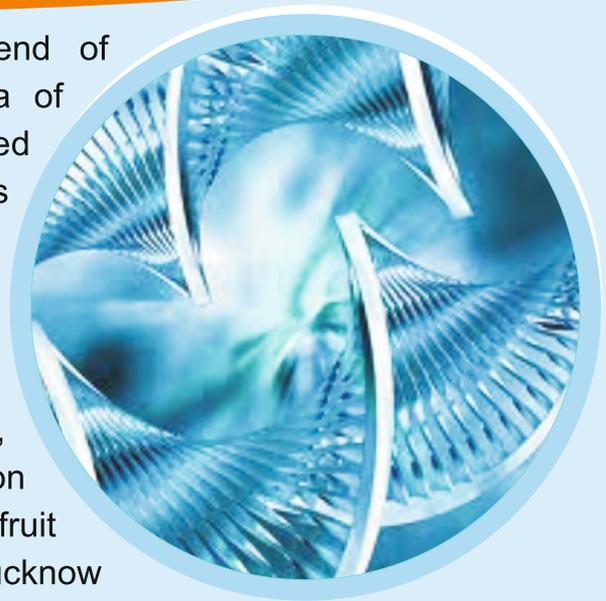
However, U.P. has not been able to apply biotechnology for its development, though significant expertise in terms of R&D institutions, human resource and agricultural diversity exists. Agriculture sector in U.P. has made significant expertise in terms of R&D institutions and human resource. It is first amongst States in the production of wheat (332.11 metric ton, 36.58% of total production in the country) and ranked second in the production of sugarcane with 134.85 metric ton i.e. 48% of total production in the country in the year 2012-2013. Similarly, other productions of the State in 2012-2013 are fruits (15.9 ton/hectare), potato (144 metric ton i.e. 40-45% of total production in the country) and milk (23.33 million ton i.e. more than 18% of total production of the country). Food production yield of the State is higher than that of the international yield.

The State used in the year 2011-12 about 68.49 metric ton of total fertilizers. In spite of such large consumption the productivity of the crops is still low. There is large gap between potential and actual yields of most of the crops. The use of organic fertilizer will lead to improvement of soil health and enhance food security as well as the nutritional security of the crops within the State.



The State has not been able to do much in the health, dairy and food sectors, in spite of available resources. Through application of tissue culture, productivity of horticulture, floriculture and agriculture can be enhanced and made economically beneficial. With the application of Biotechnology, it would be possible to enhance the productivity as well as management of food, utilizing unused and waste into value added food, milk and induct health care through nutraceuticals and pharmaceuticals.

Lucknow offers a multidisciplinary blend of excellent facilities and expertise in the area of biotechnology. Around 3000 highly qualified scientists are working in four CSIR laboratories and four ICAR laboratories within the city and many of them have earned national and international recognition. These institutes have excellent expertise and infrastructure in the area of biomedical sciences and drug development, toxicology and environment protection, production of pest resistant plants, high yielding crop and fruit varieties. Realizing the great potential of U.P., Lucknow has been declared as The Biotechnology City of India during the 89th session of the Indian Science Congress in January 3, 2002.



A Biotechnology Park with the sponsorship of Department of Biotechnology, Govt. of India and in collaboration with Department of Science and Technology, U. P. Govt., CSIR and other agencies has been setup at Kursi Road, Jankipuram, Lucknow on 8 acres of land provided by the Department of Science and Technology, U.P. Govt. In order to provide forward linkages to the farmers, a Biotech Networking Facility Center is under establishment by Council of Science & Technology, U.P. on an agriculture farm of about 26 acres, provided by U.P. State Institute of Rural Development, at Bakshi Ka Talab, Lucknow.

To harness the benefits of biotechnology for the prosperity of the State, the Govt. of U.P. has chartered a Biotech Policy in 2004. The Uttar Pradesh government proposes to redraft the Biotech Policy and introduce new developments in the field of Biotechnology that would create an investor-friendly environment. The proposed changes are required in view of various new initiatives being undertaken by the government. The State would encourage growth of R&D, development of manpower and resources in key areas like bioinformatics, plant and animal biotechnology by networking with the existing institutions, universities and medical institutes. It would also set up Centers for Excellence in different thrust areas of biotechnology. The State would develop institutional mechanism to carry the fruits of Biotech R&D being pursued at research institutions and technology incubators of the Biotech Park to farmers for employment generation through tissue culture and macro propagation. It would provide better quality and high yielding variety of crops and plants to the farmers.

Biotechnology is a multidisciplinary area that can be commercially exploited to create new jobs and economic wealth in the State would thus be eligible for all incentives provided in the UP Industrial Policy 2012, to which other industries are eligible.

2.0 NEED FOR A UP BIOTECH POLICY

The specific features and key drivers of biotech sectors for the formulation of the Policy is based are as follows:-

The Biotechnology sectors are research driven, capital intensive, resource/knowledge intensive and have multi-sector linkages. Biotechnology sectors are Research & Development oriented manufacturing based and/or Bio-service providing. Biotechnology, have interface with multiple sectors, such as agriculture, healthcare, environment, aquaculture, animal husbandry, etc. The Biotechnology sectors have multiple client selections, characterized by inventors, existing entrepreneurs endeavouring in biotechnology field and established business estates specializing in Biotechnology and its progress and application will help in the overall development of the State.



3.0 VISION

Uttar Pradesh to be developed into a prosperous State by employing biotechnology research & application to enhance the health and agriculture sectors, management of crops, bringing prosperity to farmers, generating employment in rural/urban areas, food & health for all and clean environment.

4.0 MISSION

- ▶▶ To develop knowledge based economy in biotechnology.
- ▶▶ To assure benefit of biotechnology to all the sections of the society.
- ▶▶ To promote entrepreneurship in biotechnology based industries.

5.0 DEFINITIONS

5.1 Definition of Biotechnology Unit/Sector:

Biotechnology Unit means a unit engaged in manufacture of Biotechnology products as given below.

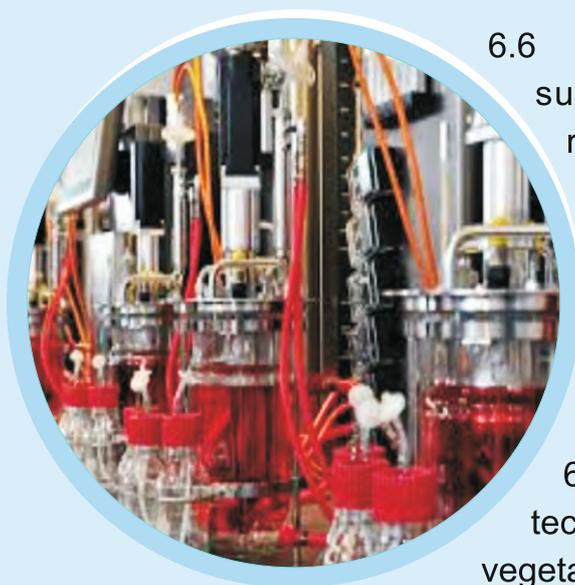
5.2 Definition of a Biotechnology Product:

Biotechnology Product would include a product, which use or are derived by using (a) living systems, (b) enzymes, (c) Bio-catalysts and any of the following processes: Genetic Engineering/ Gene Engineering, Cell Engineering/ Cell Culture, Bio process engineering, Protein Engineering, Tissue Engineering, Microbiology, Biochemistry, Bio-informatics, Genomics, Biotransformation, Molecular breeding, Bio-diagnostics, Vaccine Technology, Embryo Manipulations (subject to legal and ethical

regulations), Pharmaco-genomics, Proteomics, Allo-transplantation/Xeno-Transplantation, Bio-Chips, Gene Therapy or Other Frontier Technologies and services, as defined by the State Government from time to time.

6.0 OBJECTIVES

- 6.1 To establish first position of Uttar Pradesh in the field of biotechnology by attracting Corporate Funding for harnessing existing/creating new R&D Capabilities and Commercialization of Technology both in private as well as in public sectors.
- 6.2 To enable the farmers to increase their crop productivity and per capita income by production of high-yielding, draught-resistant, pest-resistant seeds for agriculture and horticulture crops, soil salinity treatment and the use of organic farming to enhance food security for all the people of Uttar Pradesh.
- 6.3 To undertake extensive extension educational programs to create awareness among the masses about biotechnology, it's entrepreneurial and job opportunities for all round sustainable development.
- 6.4 To attract biotechnology based industrial investment by providing special incentives to the biotech industry and related sectors in order to generate large scale employment in the urban and rural areas of Uttar Pradesh.
- 6.5 To develop adequate institutional and related infrastructure, promotion of research & development and establishment of Centers of Excellence in frontier areas of Biotechnology, with specifically focusing on human resource development.
- 6.6 To develop and conserve bio-resources for sustainable commercial use and the use of renewable energy by promoting the use of bio-fuels and other bio-energy.
- 6.7 To address issues such as Intellectual Property Rights, Bio-safety, Bio-surveillance and Bio-ethics.
- 6.8 To develop and promote cheaper and effective technologies for treatment of waste from fruit and vegetable processing, pollution management and safe drinking water, treatment of urban waste and industrial effluents through use of biotechnology.



7.0 THRUST ACTIVITIES

With the knowledge generated in the area of biotechnology globally, in past two decades or so, the improved varieties of plants/crops/animals could be developed with desired traits, on routine basis, through the application of these innovative ideas. In order to improve upon a given specific trait of relevance, the techniques have to be worked out and standardized within the State.



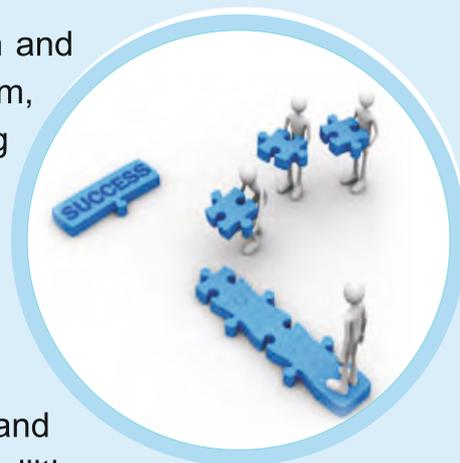
Keeping in view the State's priorities, strengths and resource abundance and within the identified thrust areas, following key activities have been identified for promotion under this policy framework. U. P. is the fifth largest state in India, with the burgeoning population of ~207,644,568 crores in 2013 and the current food production has to be increased manifolds to enhance food security for masses. The proposed activities would be increasing land productivity by enriching crop-specific, species-specific microbial communities, developing transgenic and disease free crops, resistance to biotic & abiotic stress, having high nutritional value, use of bio-fertilizers/bio-pesticides, weed control, early maturity and storage technology, phyto-remediation and bio-monitoring, bio-fuels and bio-energy.

The State would focus on wheat, rice, pulses, potatoes, sugarcane, mango, papaya, banana, amla, jatropha & vegetables, etc. In U.P. fishing area is over 4.32 lakh hectares producing ~3.93 lakh MT fishes in 2009-10 of more than 176 varieties of fishes, these include rohu, hilsa, mahseer, mangur, snow-trout and mirror carp. The proposed activities in this area would be feed improvement, disease diagnostics development, conservation of diversity, cryopreservation of embryos, development of other organisms such as freshwater prawns, pila, unio, etc.

In view of broad agricultural base, where 65% of the total population is dependent upon agriculture. Therefore, U. P. has an opportunity to provide leadership in plant transformation technology and development of industrially useful crop plants. The key activities would be plant tissue culture, horticulture, floriculture, forest trees, genetic diversity and development of medicinal and aromatic plants and isolation of bioactive molecules from them.

Uttar Pradesh supports approximately 16% of India's total livestock population. The proposed activities in animal biotechnology would be increasing the production, availability and shelf life of animal produce, feed, fodder, development of nutritionally rich, high protein fish, prawns, and alternative nutrition sources, improving the health of productive animal

through biotechnology based disease control mechanism and tools, embryo transfer technology, superior germplasm, genetic resource conservation, etc. Uttar Pradesh being the first among the States of India in production of milk, therefore emphasis will be made increase the production and utilize the produce for preparation of milk products such as butter, cheese, yoghurt, etc.



The activities that will be taken up in Pharma and Healthcare would be development of diagnostic kits and facilities, therapeutics and monoclonals, using new molecules, technologies such as stem cell, genetic diagnostics, disease control, feed improvement/nutrition, production of value added products, development of bio-products, genetic resource conservation, etc. The proposed activities in environment biotechnology would be conservation of species, bio-fermentation technology, biogas production, bio-fuel, leather biotechnology, bioremediation, etc.

Based on the above proposed activities the State has identified the following thrust areas in Biotechnology:-

- Agriculture & related sectors (e.g. Field crops, Horticulture crops, Forestry, Dairy including Cattle, Poultry, Fisheries, etc)
- Pharma & Healthcare
- Bioinformatics i.e. storing, retrieving and analyzing biological data
- Environment and Bioremediation
- Bio-energy and renewable energy
- Industrial Biotechnology
- Distinguished research in all areas of Biotechnology and related areas.

8.0 ACTION PLAN

The policy objectives would be addressed through specific action plan which are in spirit and conformity with the key strategies identified.

8.1 CONDUCIVE BUSINESS ENVIRONMENT

8.1.1 Create an Atmosphere for Attracting Bio-Agri/Bio- Pharma/Bio- Industries Sector

- ▶▶ The State Government will make sincere efforts to meet the requirements of the entrepreneurs for setting up biotech units within the State. Efforts would be made by making available suitable areas as well as the provisions of the various schemes, framed under UP Infrastructure and Industrial Investment Policy-2012 and in this policy also. The Bio-Agri/Bio-Pharma/Bio-Industries queries would be addressed for attracting new investments.

- ▶▶ The state has a vision of developing the capabilities for cutting edge technologies which would encourage wealth creation and help in acquiring global strengths. High- end Biotechnology, is capital intensive with long gestation period, needs high research inputs and special infrastructure. The State would encourage high end biotechnology.

8.1.2 Public Private Partnership (PPP)

The State shall leverage various PPP model for biotechnology development which will minimize the initial risks of introduction and subsequently the growth of a biotech units, thereby increasing the efficiency, optimal utilization of resources of the state and the private sector. The Government will encourage the investments in PPP projects for bringing world-class clusters and other facilities which can complement the efforts for attracting investments in biotechnology sector.



8.1.3 Bio-safety And Bio-surveillance

- ▶▶ The State Government proposes to address issues such as Intellectual Property Rights, Bio-safety, Bio-surveillance and Bio-ethics. The National Biotechnology Regulatory Authority's guidelines and rules as well as the State Governments will be adopted and in coordination with the DBT, GOI, these regulatory aspects would be carried out.
- ▶▶ Besides these, regulatory mechanisms of Biodiversity such as Biodiversity Act, 2002 and Manual, 2004 along with the UP Biodiversity Manual, 2010 will also be adopted.
- ▶▶ A committee will be constituted at State Level to monitor the biotechnologically developed products and GM crops.

8.2 DEVELOPING BIOTECHNOLOGY INFRASTRUCTURE

8.2.1 Promotion of Biotech Parks/Clusters

Biotechnology Parks can provide a viable mechanism for licensing new technologies to upcoming biotech companies to start new ventures and to achieve early stage value enhancement of the technology with minimum financial inputs. These biotech parks facilitate the lab to land transfer of the technologies by serving as an impetus for entrepreneurship through partnership among innovators from Universities, R&D institutions and industry.

State Government, through collaborative partnerships and provisions of incentives/concessions, proposes to encourage and facilitate the private sectors, in developing necessary biotechnology infrastructure such as Biotech Parks/Clusters/Estates and other supporting infrastructure for research, training, testing, etc.

The common facility for parks would include research laboratories for product development, multi-purpose pilot facility for manufacturing and process development, quality control and validation of technologies, common effluent treatment plant, a recognized human resource training centre, administrative support center and animal house (if required).

The biotech parks would be located so as to be easily accessible for all the stakeholders, tenants, academia with connecting roads, water and power supply and should also attract less administrative clearances from the government.

The Biotech Parks/clusters will be established in place where ever ~ 150-200 acres land is available in the State.

8.2.2 Bio-centers For Rural Development

Bio-Centers would be setup where land is available either of UPSIDC industrial estates/Rural Development/Horticulture Departments or any other land. One of the Lucknow division bio-center is under establishment at Bakshi ka Talab in an area of 26 acres.

The Bio-Centers will have facilities related to plant tissue culture, bio-fertilizers, biodiesel, medicinal/herbal/aromatic plants/herbal garden, aquaculture, post harvest technology, renewable energy/bio-fuel driven facility for running pump sets and small agricultural gadgets such as expeller & esterification facility for processing non-edible oil seeds and also adequate facilities for training & demonstration and to maintain & provide database services to users/entrepreneurs depending upon the local needs and the availability of resources/raw materials.

The centers will also have Biotechnology Information Centers for rural development and awareness. These bio-centers would be setup in assistance/guidance of CST, U.P., Lucknow.

8.2.3 Establishing Centers Of Excellence (COE)



Government of U.P. has established three Centre of Excellence (COE) to promote R&D, innovation and transfer of technology at prominent Universities and Institutes, in the areas of:-

1. Agri-biotechnology at Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut
2. Nanotechnology at Aligarh Muslim University, Aligarh
3. Diagnostics of prevalent disease of the State i.e. Japanese encephalitis at Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow.

The Centre of Excellence proposed by the State Government will be basically of the following three types:-



- ▶▶ Basic biology units emphasizing new opportunities and emerging fields.
- ▶▶ Centre for science, Engineering and Technology that would address the interface between engineering, physical sciences, biology, medicine, agriculture or forestry.
- ▶▶ Translational Centres directed towards innovation in the area of medicine, agriculture, environment, animal and food biotechnology sectors.
- ▶▶ The proposed Centers of Excellence will be setup in any Universities and Colleges/Institutes across the State utilizing their present facilities and expertise.

8.3 HUMAN RESOURCE DEVELOPMENT

All over the State, there is need to promote talent and human resource in upcoming new areas like plant genomics, agri-biotech, bio-pharma, industrial biotechnology, human diseases, toxicology, development of bio-markers, Bioinformatics, Nano-biotechnology, drug delivery, diagnostics, bio-sensors, etc. To cope with a growing demand for highly trained manpower in biotechnology the State Government proposes to initiate support to higher education research in State Universities. Approximately master degree and doctoral programs students in biotechnology will be trained or provided diploma courses will be supported and carried out in the leading State/Central Universities and Research Institutions within the State to augment human resources in the academic sector.

There is a need to build public awareness about opportunities and challenges presented by biotechnology development and to inspire public trust and confidence on the safety, efficacy as well as social and ethical acceptability of products among consumers and civil society through the dissemination of accurate information in a coherent, balanced well-articulated, user-friendly and transparent manner. To achieve this, an Advance Centre for Research Application and Training in biotechnology and bioinformatics will be setup. This center will provide training to farmers, youth and women in agri-Biotechnology and popularization of tissue culture plants, bio-fertilizers and bio-pesticides for adoption in rural areas. This will be assisted by CST, UP Lucknow, in any Institute or University of the State utilizing their existing facilities.

The Post Doctoral and Doctoral training in the area of biotechnology would be created. The emphasis will be on the multidisciplinary/inter-disciplinary learning in the areas such as bio-informatics, medicine, technology transfer & commercialization, bio-enterprise

& bio-financing and IPR etc by creating an effective interface between academic, industrial needs as well as across disciplines. This is considered important for improving the quality of education and providing exposure to new technologies for students at various levels. In addition Women scientists would be encouraged to take up careers in biotechnology. It may also run M. Sc/M. Tech/Diploma and certificate courses like finishing school to make candidates job ready. This may be assisted by CST, UP Lucknow, in any Institute or University/Biotech Parks of the State utilizing their existing facilities.

- ▶▶ It is also proposed to create a cadre of resource persons to reach the stakeholders.
- Creation of a cadre of resource persons to provide credible information based on scientific data.
- Training media personnel through Institutes of Mass Communication, colleges of journalism and others.
- Capacity building among extension personnel in agricultural, fisheries, veterinary and medical sectors.
- Involvement of Panchayati Raj institutions in the process of analysis and understanding the risks and benefits associated with GMOs as they will be playing an important role in the local level management of bio-diversity, access to benefit sharing etc.
- Awareness generation among undergraduate and post-graduate students in universities, colleges etc on issues related to biosafety.
- Promoting a genetic literacy movement within government and public schools each year.

8.4 FACILITATING BIOTECHNOLOGY RESEARCH AND INNOVATION

8.4.1 Biotechnology Research

- ▶▶ The State Government proposes to promote and develop biotechnology research, on national and international partnership basis and facilitate the adaptation of research into usable, beneficial technologies, products and processes.
- ▶▶ The State Government proposes to strengthen Industry-University/Institutes partnerships by promoting/encouraging collaborative research and providing innovation support. The Industrial interface will be strengthened further by establishing regional training centres at diploma, graduate and post graduate level



imparting skills required By the industry, industry internship in Ph.D. programs and network of universities and industries facilitating pooling of resources. The State Government also propose for visiting professorship and creation of industry sponsored chairs in partnership with the government.

- ▶▶ A database of scientists working in different areas of biotechnology within and outside the State will also be created to utilize the expertise appropriately. In addition it will also emphasise upon enabling working conditions for scientists to undertake industry oriented research in universities/research institutions to work in industry for commercialization of their research efforts.
- ▶▶ The U.P. Government proposes to encourage biotechnology research in private sector by facilitating the availability of incentives for this purpose.

8.4.2 Collaborative Research

- ▶▶ To encourage biotechnology research in private sector, the State Government proposes to play a catalyst role in bringing them together. Emerging technologies such as recombinant technology or recombinant products, refinement & modifications, nano-biotechnology, gene technology, pharmacogenomic, pharmacokinetics, new drug delivery mechanism, bioremediation technology would provide Indian biotech units a major opportunity to become partners in value creation.
- ▶▶ However due to traditionally poor linkages with industry and weak commercialisation policies, the government proposes to strengthen the technology transfer capacity and effectively make use of the research outcome by creating several state/regional technology transfer cells (TTC's) over the next 5 years to provide high calibre, specialized and comprehensive technology transfer services.
- ▶▶ Each TTC would service a cluster of institutions in a region or a city. To further encourage the transfer of know how of industry, the scientists and technologists associated with it would be rewarded through financial returns.



- Directly linking the state research priorities in the various areas of Biotechnology so as to enable the scientist to carry out research at par with the International Standards.
- To motivate industry in partnership with institutes and government in the infrastructure capabilities building.
- ▶▶ State Government proposes to support visiting fellowships for foreign visit to a renowned University/Institute for a short duration of 06 months to interact with international scientist community and institutions and to participate in research and training activities in frontline areas of Biotechnology. The selected candidates will also be encouraged to attend scientific conferences and visit other institutions in the host country.

8.4.3 Financial Assistance

- ▶▶ The fiscal incentives and tax benefits are an indirect way of encouraging R&D expenditure and help the firm to capitalize on the inherent cost effectiveness of the biotech enterprise.
- ▶▶ To encourage the Universities/Institutes to make every effort for applied and solution based research, the State government on case to case basis may consider providing support to University/Industry for industry funded research.
- ▶▶ The State Government articulates the need for developing a network of relevant stakeholders to promote innovation in the state/country. This calls for the Public investment to be catalyzed to promote clustering and networking among stakeholders as this can lead to enhanced creativity by sharing of expertise, resources and infrastructure. The networking of stakeholders may involve Public-Private Partnership or either have a regional focus.
- ▶▶ Government allocation of funds or grants for creation of new research institutions and facilities apart from the strengthening or upgrading the existing facilities of an organization.



8.4.4 IPR (Intellectual Property Rights)

Government of U.P. would promote IPR enforcement through sharing of best practices, guidelines and framework across U.P. to safeguard innovation.

The development of capabilities for the effective management of Intellectual Property (IP) is an important element in securing the benefits of public and private sector research in biotechnology. In this context, filings of patents both in India and abroad are critical for the growth of the Indian biotechnology.

As IPR creation is a pre-requisite for exports to the regulated markets, it is recommended that expenditure incurred with regard to filing patents outside India be also eligible for weighted deduction U/S 35 (2AB).

Administration of the new intellectual property rights regime should be improved. This will be achieved by:-

- Encouraging science graduates to pursue law for better understanding of IPR related issues.
- Inclusion of IPR related issues in curriculum of law colleges for facilitating filing of international patents, license negotiation, dispute resolution etc.
- Training scientists and technology transfer professionals in the strategy of intellectual property protection relating to assessment of patentability, prior art examination and technology transfer issues.
- Training patent attorneys on science subject(s) and improving mechanisms for IPR administration through reforms and creation of patent offices, patent codes and ensuring adequate availability of patent attorneys. This will be promoted to an effective inter-ministerial collaboration.
- Adequate budget be allocated to substantially improve the current Patent infrastructure and set up additional offices.



9.0 INCENTIVES & CONCESSIONS WITH REGARD TO BIOTECHNOLOGY BASED INDUSTRIAL/COMMERCIAL DEVELOPMENT

In order to promote encouragement to the industrial investment in the area of biotechnology in the State, the State Government will take necessary steps to provide concessions, subsidies and financial assistants for attracting investment, promoting biotechnological industrial development and maintaining competitiveness of the Biotechnology Units within the State.

9.1 RELAXATION IN STAMP DUTY

In consonance with the UP Infrastructure and Industrial Investment Policy-2012, the incentives will be extended to new Biotech Units or Units undertaking expansion and diversification will be given exemption from stamp duty in the following manner:-

9.1.1 The new industrial units or existing units undertaking expansion or diversification, on purchase or lease of land, shed and industrial tenements from State Government or Central Government or from Corporations/ Boards/ Company/ Institutions owned or controlled by them, will be made available in the following manner.

a) Units related to Information Technology, Biotechnology, Agro Processing, Food Processing, Food Park, Solar Energy or alternative sources of energy and BPO Call Centres will be provided 100% exemption from stamp duty in the entire state.

b) Provision of 100% exemption from stamp duty on purchase of land will be available to units set up by private sector, except those set up through Public-Private Partnership (PPP), for development of infrastructural facilities (like roads, bridges, over bridges, wholesale market, trans-shipment centre, integrated transport and commercial centre, generation/ transmission/ distribution of electricity, water supply, water drainage, exhibition centre, warehouse, cold storage, airport, sewage treatment plant, solid waste management plant, railway commercial centre, cargo hub, fire station, gas booster and feeder station and effluent treatment plant).

9.1.2 On purchase of land from private sources, 100% exemption from stamp duty will be provided.



9.1.3 The developer of industrial/Biotech area or industrial/Biotech estate in private sector will be provided 25% reimbursement from stamp duty paid, subject to the condition that the industrial area or industrial estate has been developed and at least 50% land has been sold within three years from the date of purchase of land.



9.1.4 The sale of closed units, attached by PICUP, UPFC or Bank, the stamp duty will be payable at the sale price approved by the competent authority, instead of the circle rate.

9.1.5 If a parent company transfers land to its subsidiary, in which the parent company has minimum 51% shareholding, then reimbursement on stamp duty on land transfer will be admissible to the subsidiary company provided the commercial production has been started by the subsidiary company within three years.

9.2 RELAXATION ON COMMERCIALIZATION

In consonance with the UP Infrastructure and Industrial Investment Policy-2012 the incentives will be extended to Biotech Units as well.

9.2.1 The raw material, processing material and packing material being used in manufacturing and packing of goods for sale will be included in the category of 4% VAT liability.

9.2.2 The manufacturers, who export through export houses in accordance to sub section (3) of section 5 of Central Sales Tax Act 1956 in the course of export, will be provided the facility of input tax refund or set-off facility related to the sale to export houses for export outside India.

9.2.3 In case of transfer of stock outside the state, deduction from input tax credit will be allowed equivalent to the rate of central sales tax, which is applicable on form-C of commercial tax with regard to interstate sales.

9.3 EXEMPTION FROM MANDI FEE

- ▶▶ In consonance with the UP Infrastructure and Industrial Investment Policy-2012 the exemption from Mandi fees on purchase of raw material for 5 years to new Biotech Units having capital investment of Rs. 5.0 crores or more in plant and machinery.

- ▶ Under the Biotech Policy-2014, exemption from Mandi Fees and development cess will be available for 10 years to new biotech export oriented units using perishable raw material, on the exported quality.

9.4 EXTENSION OF INVESTMENT PROMOTION SCHEME

In consonance with the UP Infrastructure and Industrial Investment Policy-2012 the incentives will be extended to Biotech Units as well.



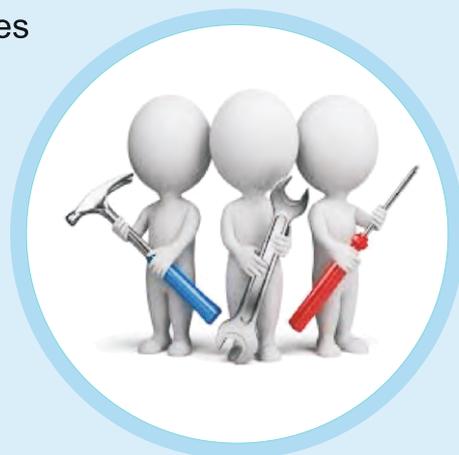
- 9.4.1** All the new biotech units to be set up in Poorvanchal (Eastern U.P.), Madhyanchal (Central U.P.) and Bundelkhand regions, with fixed capital investment of Rs. 5 crores or more, will be provided the facility of interest free loan, from the date of first sale up to 10 years, equivalent to the sum of VAT and Central Sales Tax deposited by industrial units or 10% of the annual turnover whichever is less, which will be payable after 7 years from the date of disbursement of such loan.
- 9.4.2** All new biotech units with fixed capital investment of Rs. 12.50 crores or more, to be set up in the State except those in Poorvanchal (Eastern U.P.), Madhyanchal (Central U.P.) and Bundelkhand regions, will be provided the facility of interest free loan, from the date of first sale up to 10 years, equivalent to the sum of VAT and Central Sales Tax deposited by industrial units or 10 percent of the annual turnover whichever is less, the repayment of which will be made after 7 years from the date of disbursement of such loan.
- 9.4.3** To provide facility of interest free loan also to units undertaking expansion, provision shall be made similar to para 9.4.1 & 9.4.2 above, consisting of interest free loan equivalent to the sum of VAT and Central Sales Tax paid.

9.5 UNINTERRUPTED POWER SUPPLY

In consonance with the UP Infrastructure and Industrial Investment Policy-2012 the incentives will be extended to Biotech Units as well.

- 9.5.1** The exemption in electricity duty to new units will be available for 10 years and to mega units for 15 years will be continued.
- 9.5.2** The electricity, generated by captive power plant for self use, will be exempted from electricity duty.

9.5.3 Under the Biotech policy-2014, Uninterrupted Power Supply shall be ensured by giving dedicated feeder to the biotechnological units, in which capital investment is more than Rs. 5.00 crores and will be kept out of power cuts. The cost of provision of separate Feeder and separate Transmission line will be borne by the developer.



9.6 SUBSIDY SCHEMES

In consonance with the UP Infrastructure and Industrial Investment Policy-2012 the incentives will be extended to Biotechnological Units as well.

9.6.1 Capital Interest Subsidy Scheme- New Industrial units set up, in Poorvanchal (Eastern U.P.), Madhyanchal (Central U.P.) and Bundelkhand, will be reimbursed the amount of interest at the rate of 7% payable on loan taken by them for a maximum period of 5 years, for procurement of plant & machinery from Banks/Financial Institutions. Under the Biotech Policy-2014, the maximum limit of the same will be Rs. 100.00 lakhs per unit.

9.6.2 Infrastructure Interest Subsidy Scheme- Under the Biotech policy-2014, new biotechnological units, being set up in the state, will for a maximum period of 5 years be reimbursed the amount of interest at the rate of 7 % payable on loan taken by them for developing infrastructural amenities for self use like roads, sewer, water drainage, erection of power line, transformer and power feeder. The maximum limit of the same will be Rs.1.00 crore per unit.

9.6.3 Industrial Quality Development Subsidy Scheme- In consonance with the UP Infrastructure and Industrial Investment Policy-2012, Industrial Associations and Groups of Industrial Units will for a maximum period of 5 years be reimbursed the amount of interest at the rate of 5 percent payable on loan taken by them for Industrial Research, Quality improvement and development of products by incurring expenditure on procuring plant, machinery & equipments in setting up Testing Labs, Quality Certification Labs and Tool Rooms. The maximum limit of the same will be Rs.1.00 crore per Lab/Tool Room.

9.6.4 E.P.F. Reimbursement Scheme- Under the Biotech policy-2014, all such new biotechnological units set up in the state, which provide employment to 100 or more unskilled workers, will be reimbursed the 50 percent amount of E.P.F. deposited by them in favour of workers for next 3 years after 3 years of setting up unit. The maximum limit of which will be Rs. 100.00 lakhs/unit.

9.7 SIMPLIFIED LABOUR LAW

In consonance with the UP Infrastructure and Industrial Investment Policy-2012, it shall also be extended to Biotechnological units as well.

9.7.1 Number of records and documents to be maintained by biotechnological units under various Acts and returns to be filed will be reduced to a minimum possible figure by rationalization and integration. State administrative machinery would be made more amenable to the entrepreneurs.

9.7.2 For smooth implementation of the regulatory measures, the process of self-certification and accredited third party inspections would be continued and encouraged further.

9.7.3 Inspection based on complaints will be conducted by the departments concerned, like- Labour, Environment, Tax and Food & Drug Administration etc. only after the prior permission of District Magistrate.



9.8 SIMPLIFIED ENVIRONMENTAL LAWS

In consonance with the UP Infrastructure and Industrial Investment Policy-2012, it shall also be extended to Biotechnological units as well.

9.8.1 To facilitate new entrepreneurs in the site selection for enterprise, the atlas indicating the pollution zones of the State will be periodically prepared and uploaded on the website of Uttar Pradesh Pollution Control Board (UPPCB).

9.8.2 Non-polluting industries will be specially identified and permitted to commence work without completing the formalities required by UPPCB. For these units, the completion of formalities for getting the No Objection Certificate (NOC) from UPPCB could be carried out during the course of their production. In case, UPPCB has any objection to the application of such industries, then any action against them could be initiated only after due approval of the State government.

9.8.3 Procedure of obtaining approval from UPPCB will be simplified for non-polluting or minimum polluting industries which belong to green list.

9.8.4 Non-polluting industries using generator up to a capacity of 5 KVA as a standby arrangement are exempted from obtaining pollution NOC. Under the new policy, exemption from pollution NOC will also be available to such units which use generator with more than 5 KVA capacity.

9.9 SIMPLIFICATION OF COMMERCIAL TAX

As provided in the UP Infrastructure and Industrial Investment Policy-2012, shall also be extended to Biotechnological units as well.

- 9.9.1** Provision of filing annual return (Form 26) as prescribed in U.P. Value Added Tax Rules will be replaced by a simplified arrangement. New provision will come into effect after amendment in U.P. Value Added Tax Act/ Rules.
- 9.9.2** Form-C, Form-F, Form-H, Form-E-1 prescribed in Central Sales Tax (Registration & Turnover) Rules will be made available on the website of department of Commercial Tax, so that these can be easily downloaded for use.
- 9.9.3** Manufacturing units established under the Infrastructure and Industrial Investment Policy-2012/Biotechnology Policy-2014 will be entitled to the benefit of Input Tax Credit (ITC) on the tax paid on purchase of capital goods from inside the State, during the applicability of this Policy or for a period of five years from the date of first purchase of plant and machinery, whichever is earlier. The entitlement to ITC would be admissible on the return for the first tax period of the year subsequent to the assessment year in which the purchase has been made. This provision will come into effect after the corresponding amendment in U.P. Value Added Tax Rules.



9.10 INCENTIVES FOR EXPORT ORIENTED BIOTECH UNIT

As provided in the UP Infrastructure and Industrial Investment Policy-2012, shall also be extended to Biotechnological units as well.

- 9.10.1** For the units availing exemption from Mandi Fee on purchase of raw material under Section 17-A of Uttar Pradesh Krishi Utpadan Mandi Act 1964 (UP Agriculture Produce Marketing Act), the existing procedure of exemption will be replaced by the constitution of a division level committee under the chairmanship of the Divisional Commissioner. This committee after duly considering the recommendations presented by the District Magistrate, will dispose off the applications submitted on prescribed format for exemption of Mandi Fee, in a time bound manner.

9.10.2 Any application for license will be approved or rejected by the competent authority through a reasoned order within 30 days of receipt of completed application form along with desired documents and license fee prescribed under Uttar Pradesh Krishi Utpadan Mandi Act 1964. The failure to pass an order within 30 days shall be treated as deemed approval of the license.

9.10.3 Under the Biotech policy-2014, for 100% exemption in export oriented biotech units on Plant & Machinery and Capital Goods for an initial period of 3 years from the date of commencement of project implementation.

9.10.4 Under the Biotech policy-2014, refund of expenses incurred for compulsory marking like Conformité Européene (CE), China Compulsory Certificate (CCC), etc., to the extent of 50% of expenses subject to a maximum of Rs. 5.00 lakhs per unit for both 100% and other export oriented biotech units.

9.11 RELAXATION IN ZONAL REGULATIONS

- ▶▶ Biotechnology units established in Biotech Parks/Biotech Industrial Areas/Clusters shall be given exemption for Floor Area Ratio (FAR) to the extent of 50% to the prevailing norms and the aforesaid limit may be considered to be given to the extent of 25% to the units in other areas that lie in the identified districts of Poorvanchal and Bundelkhand.

9.12 RELAXATION OF TAXES ON BIOTECHNOLOGY BASED PRODUCTS

- ▶▶ The units engaged on dissemination of Biotechnology based techniques and products like seeds, bio-fertilizers, improved genetics materials, drugs, etc. will be given to investors as 5 percent subsidy on taxes for a period of 5 years, up to total limit of Rs. 50 lacs incentives for a capital investment of Rs. 100 .00 crores or more.
- ▶▶ An e-portal will be launched for backward-forward linkages, market development, global competition, quality and certification, e-governance and easy availability of information regarding biotechnological units.



9.13 ASSISTANCE TO CLUSTER DEVELOPMENT

The Government of Uttar Pradesh would encourage setting of cluster for Biotech industries with private participation.

Cluster will be recognized having critical mass of a minimum of 5 units or 5 similar units in a radius of 15 km.

- ▶▶ The Government, with an aim to empower the clusters, would provide financial assistance in the form of waiving off part of interest accrued on the loan drawn from the banks/financial institutions for meeting the expenditure on the Units, machinery and spare parts.
- ▶▶ An interest subsidy at the rate of 7% per annum for a period of 5 years on the rate of interest paid on the loans obtained from the banks/Financial Institutions would be reimbursed subject to a maximum of Rs. 1.00 crore per annum per unit.
- ▶▶ The interest subsidy will be paid directly to the Nationalized Banks and Financial Institutions that is approved by RBI with which the investor reaches financial closure.
- ▶▶ The above assistance would be provided for taking up activities like technology up-gradation among member units, with the assistance from R&D Institution/University, product design, quality improvement, common branding and marketing facilities, development of common facilities such as raw material or product warehouse, testing laboratory, tool room facilities, skill development facilities/programs for workers and supervisors, capacity building and productivity improvement, etc.

9.14 UTTAR PRADESH BIOTECHNOLOGY VENTURE CAPITAL FUND (UPBVCF):

The state government proposes to increase the availability of venture funds by further expanding and strengthening Uttar Pradesh Biotechnology Venture Capital Fund (UPBVCF). The fund established to support entrepreneurs and starters is, dedicated solely to the Biotechnology Industry. The fund has an initial corpus of Rs 50.00 crores with 26% of stake holding by the State Government.



9.15 RELAXATION ON MEGA PROJECTS

A special package of incentives would be offered to mega projects. A project having an investment of Rs. 100.00 crores or more would be considered as mega project.

- ▶▶ These Units shall be considered for special incentives over and above the incentives provided by the Empowered

Committee along with the approval of The State Government on case to case basis. Those Units proposed on skill development, Innovation, Research and Development and employability of the resource pool in Uttar Pradesh may attract special incentives over and above the incentives provided by the Empowered Committee along with the approval of the State Government on case to case basis.



9.16 EMPLOYMENT GENERATION

The State Government proposes to provide 50% of incentive for five years on expenditure on account of contribution towards Employee Provident Fund and Employee State Insurance Schemes to the units employing at least 75% locals for a period of 3 years, having not less than 50 persons regularly, subject to a maximum of 25% of Fixed Capital Investment.

9.17 ASSISTANCE TOWARDS PREPARATION OF BANKABLE PROJECTS

For establishment of new units in the state with minimum capital investment of Rs. 100.00 lakh on plant and machinery and spare parts, 50% of the expenditure incurred in the preparation of detailed project report (DPR), subject to a maximum of Rs. 5.00 lakh, will be payable as grant to the beneficiary unit. The grant towards preparation of the DPR will be linked to the setting up of the units. Cost of DPR will be deemed to be not more than the 2.5% of the capital cost of the proposed project or the proposed actual DPR cost, whichever is less towards which 50% of the cost will be admissible as grant.

9.18 ENCOURAGEMENT TO THE COMMERCIALIZATION OF R&D FINDINGS

- ▶▶ There exists ample risk in converting fruitful pilot level R&D findings for their commercialization, which are expensive as well.
- ▶▶ State Government would be paying adequate attention to provide financial support to such units having adequate production, marketing and distribution networks as to develop series of beneficial new projects in innovation cycle, product quality improvement and development will be reimbursed on interest of the loan drawn at the rate of 5 percent for a period of 5 years, up to total limit of Rs. 1.00 crore per laboratory/unit.
- ▶▶ It is further proposed that approximately 30% of the produced product will be taken up by the State Government subject to the competitive price/rates.

9.19 PATENT REGISTRATION & PRODUCT REGISTRATION

- ▶▶ The State Government would provide financial assistance to Biotechnology industrial units/individuals, for patent tracking and patent registration.
- ▶▶ Assistance would be provided for meeting the expenses incurred for obtaining patent registration.
- ▶▶ Assistance would be provided at the rate of 50% (maximum of Rs. 2.00 lakhs) of necessary expenditure incurred for obtaining the Patent/IPR. This assistance will be given only once per product/process per institution/individual.
- ▶▶ This is subject to a restriction that the total amount of subsidy obtained from Government of India, State Government or other sources for the purpose will not be more than 50 percent of the total admissible cost. This facility will be available to such units who have invested a minimum capital of Rs. 25.00 lakhs on plant, machinery and spare parts.

9.20 ISO CERTIFICATION

Quality up-gradation is a must for every industry to survive. Financial assistance to biotechnology based industrial units for ISO Certification will be provided.

- ▶▶ The State Government would provide financial assistance to Biotechnology Units for quality certification and for obtaining ISO 9000/14000 and for various other schemes like GMP, HACCP, TPM, JIT etc.
- ▶▶ The assistance would be offered for reimbursement of the expenditure incurred towards the cost of acquiring equipments required for testing and R&D, quality up-gradation, acquisition of quality marks, consultancy fee to firms etc.
- ▶▶ Financial assistance upto maximum limit of Rs. 2.00 lacs.

9.21 ENCOURAGEMENT TO CENTERS OF EXCELLENCE

- ▶▶ Assistance would be provided to Agro-Biotech Industries/ Universities/Institutes for setting up Centre of Excellence.
- ▶▶ The State Government would support projects for development of Centre of Excellence. The financial assistance would be provided up to a maximum of Rs. 5.00 crores in the first year, for equipments & running cost and in the subsequent years running cost will be provided for a period of next 4 years, and afterwards that University/Institute will be running the Center on their own.

9.22 PARTICIPATION IN TRADE FAIRS, EXHIBITION

- ▶▶ The State Government would provide financial assistance to Biotechnology industries/units, for market promotion and development, or participation in national/international trade fairs and seminars/conferences.
- ▶▶ For participation in international fairs, State Government would offer subsidy of 50% of the total cost, up to a maximum of Rs. 2.00 lakh, per industrial units per year. Assistance would be provided for attending seminar held abroad for i.e. 50% of the participation fees per industrial units per year. The assistance may be disbursed only after relevant certificate produced by the participants.

9.23 ASSISTANCE FOR VISITING FELLOWSHIP

- ▶▶ The State Government would provide financial assistance to Fellowship amount of US \$ 3000 (or equivalent in other foreign currency) per month for the period i.e. 1-3 months of stay at the host institute abroad. The institution to which the candidate belongs would be responsible for necessary foreign exchange arrangements. The State Government will provide cost of air passage in economy class from the place of working in India to the place of the overseas host institute and back by shortest route, one time contingency grant of Rs.15,000/- will be provided, fellow will also be permitted to travel within host country to attend conferences or visit other institutes of interest with the approval of the host institute and the Fellow will be entitled to a grant of US \$ 600 (or equivalent in other foreign currency) for fellowship. Rules governing payment of salary, leave, medical, gratuity, GPF and pension etc. of the Organization/Institution/University to which the fellow belongs would continue to be applicable. No liability on any of these accounts will be borne by the State Government.
- ▶▶ These fellows going abroad will have to sign a memorandum stating that they will serve the State for a minimum of two years after taking the training, failing thereof will have to forfeit the entire amount.



9.24 ATTRACTING SCIENTIST FROM OVERSEAS

Innovators and Noble Laureates will be offered a to and fro fair by economy class air fare and local hospitality will also be provided during their stay in the State.

10.0 COMMITTEES

For facilitating quick implementation of Biotechnology initiatives and policies, various committees would be constituted by State Government to facilitate the scheme implementation and regulatory aspect of development of Biotechnology in the State.

10.1 REGULATORY COMMITTEES

As provided in the UP Infrastructure and Industrial Investment Policy-2012, the Industrial Security shall also be extended to Biotechnological units as well.

- ▶▶ The Department of Infrastructure & Industrial Development, U.P. has constituted committees of districts/divisions level Udyog Bandhus headed by the district magistrate/divisional commissioner in the State would facilitate the scheme implementation and regulatory aspect of Biotechnology Unit of the State.
- ▶▶ Considering special security needs of industries, a 'Fast track Grievance Redressal Cell' has been established under an Inspector General of Police in the office of Director General of Police.
- ▶▶ In order to further improve the security of entrepreneurs and business persons, 'Industry - Business Security Forum' constituted under the chairmanship of District Magistrate at district level will be made more effective. Persons nominated by industrial associations will be appointed in 'Industry -Business Security Forum' as special status members.
- ▶▶ Single Point of Contact (SPOC) services will be provided to all the investors of Biotech Units by the nodal agency. A nodal officer will be appointed for SPOC services that will be responsible for backward linkages for the Biotech entrepreneurs.



10.2 BIOTECHNOLOGY VISION GROUP

Biotechnology Vision Group is being set up to advise the government on future strategies. The group will be a standing feature and will also be entrusted with several projects to manage directly. The group will be serviced by the Department of Science and Technology, Govt. of U.P.

10.3 BIOTECHNOLOGY DEVELOPMENT BOARD

High powered Biotechnology Development Board under the Chairmanship of Chief Minister, Government of UP and Secretary/Principal Secretary, Department of Science and Technology, Govt. of U.P. will be the member Secretary shall be constituted in order to complete all the formalities and provide permission to biotech units.

10.4 BIOTECHNOLOGY DEVELOPMENT CELL

The State will constitute a Biotechnology Development Cell (BDC), at Council of Science & Technology, UP for providing technical guidance and support. The committee will consist of representatives from concerned departments and experts from different areas of Biotechnology. The matter referred by the regulatory committees and others will be taken up by the Biotechnology Development Cell from time to time.

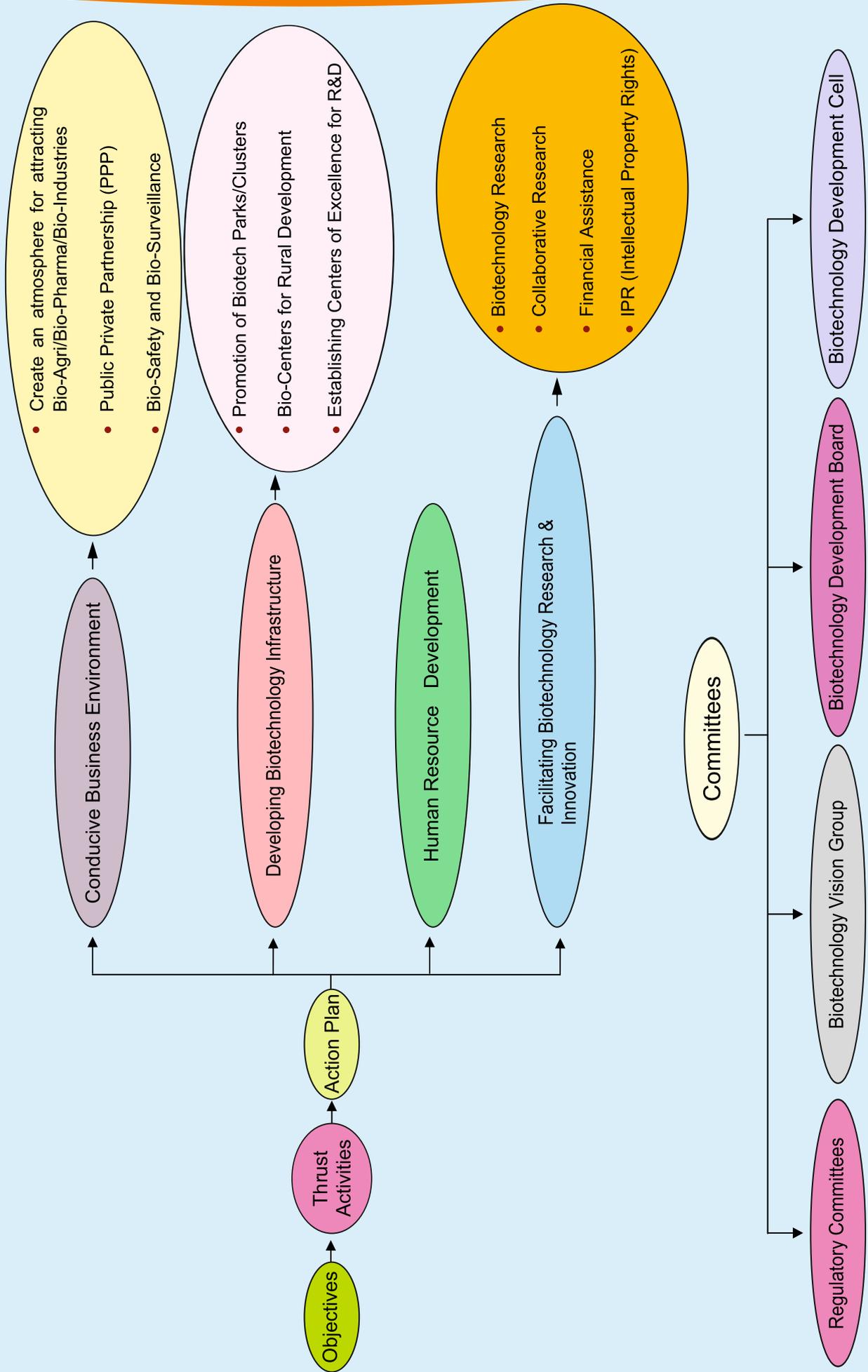
Biotechnology Development Cell will operate with the following mandate:

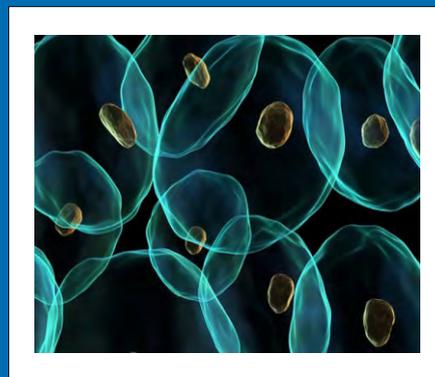
- To promote, support and facilitate the overall development of Biotechnology in the State.
- To facilitate the infrastructure development, research, innovation and human resource development,
- To facilitate regional, national and international networking for promotion of biotechnology,
- To facilitate the development of data bank and resource centers.
- To facilitate creation of scientific awareness, socio-ethical acceptance, adoption and application of biotechnology.
- To oversee the implementation of the Policy and also help in removal of bottlenecks.

11.0 NODAL AGENCY

For the implementation of the action plan it is proposed that Council of Science & Technology, U.P. will act as a nodal agency. The Council of Science & Technology, U.P. would be strengthened significantly both in terms of infrastructure and manpower.

FLOW CHART OF ACTION PLAN





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