

Department of Science & Technology
Outcomes/Targets in the Outcome Budget 2005-06

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
1	Research & Development Support	To enable scientists and technologists to perform at their best in their chosen areas of science and technology	290.00	To support 25 new projects in science and engineering. Set up 2 national facilities: 1) Single Crystal X-ray Diffractometer, High Resolution NMR; 2) Solid State NMR. To strengthen infrastructure in 25 departments for research & education. Organisation of 4 Science & Engineering Research Council (SERC) Schools/training courses. Organisation of 25 national/ International Seminars	To support 35 new projects in science and engineering. Set up 2 national facilities: 1) High Resolution Electron Microscope; 2) High Resolution NMR 88MHz. To Establish two Units and Core Groups on: 1) Biomedical & Bioseparation Techniques; 2) Neuro Science. To strengthen infrastructure in 35 departments for research & education. Organisation of 4 Science & Engineering Research Council (SERC) Schools/training courses. Organisation of 35 national/ International Seminars	To support 40 new projects in science and engineering. Set up 3 national facilities: 1) Gamma detector Array Facility; 2) High Fluence IMB; 3) Low Temperature and High magnetic Fields. To Establish three Units and Core Groups on: 1) Evolution and genetics; 2) Astro Particle Physics & Space Science; 3) Centre Catalyst. To strengthen infrastructure in 40 departments for research & education. Organisation of 4 Science & Engineering Research Council (SERC) Schools/training courses. Organisation of 40 National/ International Seminars	To support 50 new projects in science and engineering. Set up 3 national facilities: 1) Indigenous development of Bio Medical Equipment & Devices; 2) Smart Materials; 3) Upgradation of the Bio Medical Research facilities. To Establish four Units and Core Groups on: 1) Indigenous processing Materials; 2) Polarised line, Beam line on induce two bending magnet source; 3) Unit on Bio-exams. To strengthen infrastructure in 25 departments for research & education. Installation and commissioning of equipment: 1) for setting up of VSAT Telemetric Seismic Stations in North West Himalayas; 2) for upgradation of		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
							seismological instruments through RRL, Jorhat; and 3) for setting up 10 permanent GPS stations in Himalayan region. Organisation of four Science & Engineering Research Council (SERC) Schools/training courses. Organisation of 50 National/ International Seminars		
2	National Mission on Nano Science and Nano Technology	Strengthen R&D in nano science & technology	200.00	Preparatory work toward in principle approval and DPR/EFC	1) ten Centres of Excellence in nanoscience (Computational Science, material Science, etc. 2) Post-doc. Fellowships	1) 50 Joint industry Academic R&D application programmes. 2) nano-Tech start-up Business Incubators	10-15 Nano Technology Application Centres in areas of Nanomedicine; Nanometrology; Nano Textiles; Nano Surface Engg.; Nano Phosphers; and Nano manufacturing Technology	Necessary approvals to launch the Mission are expected to be obtained shortly	
3	Drugs & Pharmaceuticals Research	Enhancing capabilities of Indian drugs & pharmaceutical industry	150.00	Initiation of phase-II clinical trial of the drug approved by Drug Controller General of India for Colon Cancer	Commissioning of facility on pharmaceutical informatics at NIPER, Chandigarh	Testing of 500 New Chemical Entities for deciding the lead molecule for treatment of diseases like cancer, diabetes, etc.	Commissioning of national facility on Regulatory Toxicology at CDRI, Lucknow	Necessary approvals are expected to be obtained shortly	
4	Technology Development Programme		35.00						

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
4.1	Instrument Development Programme	Development of instruments in sectoral areas		Development of Proteomic Analytical System; Differential Thermal Analyser and LPG Sensor	Training on Polymeric sensors for 20 persons. Setting up of testing & calibration facility for sensors.	Development of PC based optical inspection system for PCBs; transdermal drug delivery instrument; table top model of Light fastness Testing instrument. Training 20 participants in medical instrumentation.	Development of Blood Clinical Chemistry Analyser. Training 20 participants in medical instrumentation.		
4.2	Joint Technology Projects	Development of relevant technologies for various applications		Development and field trials of integrated arsenic removal. Development of blood grouping card for identification of blood groups in remote areas. Development & demonstration of one sea water desalination unit. Development of pesticides detection kit.	Development & demonstration of straight vegetable oils based power generation unit. Design of visual inspection unit for bridges. Improvement in day-tank furnace for glass melting. Development of tea bio-sensor.	Setting up of improved version of sea water desalination unit. Development & field trials of ceramic membrane based arsenic removal plant. Development of membrane based defluoridation plant. Development of low cast broadband access system.	Development of set top box for internet access (first prototype). Upscaling of iron removal plant. Upscaling of Plasma Pyrolysis Plant for waste disposal. Mapping of effects of straight vegetable oil on engine performance.		
4.3	Natural Resources Data Management Systems (NRDMS)	Promote R&D initiatives in natural resources database management		Digital district resource profiles for Almora & Jalpaiguri. 1 Geographical Information System (GIS) in the health sector. Hazard zonation	Digital district resource profiles for 3 districts in Karnataka. ECOLAND version 2 software for field level optimum land use planning.	Digital district resource profiles for Kohima, Vellore and Midnapore. Awareness programme on geo-informatics for 15000 school students and 120 village	Establishment of NRDMS centres at Jammu and Hamirpur, HP.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
				maps for 10 locations. Providing Urban Facilites in Rural Areas (PURA) in one block.	Software for integrated watershed development. Compendium on Hydrology of small watersheds. Pilot data clearing house for small watersheds. Software for drought monitoring and management. Tsunami damage assessment model in 7 locations of the East Coast.	panchayats. Compendium on landslide hazard mitigation. Hazard zonation maps for 5 locations. Providing Urban Facilities in Rural Areas (PURA) in one block.			
4.4	Patent Facilitating Cell	Spread knowledge of IPR among the S&T Community		5 Patent /IPR awareness workshops/ Training programmes.1 new Patent Information Center (PIC). Continuation of 18 Patent Information Centers (PICs). 3 issues of IPR bulletins. Updated Ekaswa Patent Database. Filing of (25) new Patent applications for DRDO. Patent filing for academic institutions (10). Grant of Patents (3). Maintenance of	10 Patent /IPR awareness workshops/Training programmes.1 new Patent Information Center (PIC).3 issues of IPR bulletins. Updated Ekaswa Patent Database. Selection of Women Scientists for training in IPR. Filing of (25) new Patent applications for DRDO.Patent filing for academic institutions (10).Grant of Patents (3). Maintenance of 50	15 Pat ent /IPR awareness workshops/Training programmes. Indo-US IPR & Technology Management Programme (2) workshops, 1 Symposium and 4 intern training in US.8th PIC Interaction Meeting of all 20 PICs.3 issues of IPR bulletins. Updated Ekaswa Patent Database. Placement of Women Scientists. Filing of (25) new Patent applications	15 Patent /IPR awareness workshops/Training programmes. Training programme for PIC officials and other government departments. 3 issues of IPR bulletins. Updated Ekaswa Patent Database. Filing of (25) new Patent applications for DRDO. Patent filing for academic institutions (10). Grant of Patents (3). Maintenance of 50 granted patents.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
				50 granted patents	granted patents.	for DRDO. Patent filing for academic institutions (10). Grant of Patents (3).Maintenance of 50 granted patents.			
4.5	National Good Laboratory Practices (GLP) Compliance Monitoring Authority	Institutionalise good laboratory practices		Launch of GLP website, Grant of GLP –compliance Certificate (1 No.), Preparation of Checklist for GLP Inspections, Finalization of GLP Inspections, Finalization of course content for GLP Inspectors' Training Course scheduled in September, 2005, GLP Inspection of test facility (1 No.)	Surveillance Inspection visits (4 Nos.), Training Programme for GLP Inspectors, Final GLP Inspections (3 Nos.), Pre-course content for Inspection of test facility (1 No.), Awareness Workshops/- Seminars on GLP (2 Nos.), Preparation of a draft Legislation on GLP, Printing of the Checklist for GLP Inspections	Awareness Workshops/Seminars on GLP (2 Nos.), Grant of GLP-compliance certificate (3 Nos.)	Awareness Workshops/Seminars on GLP (2 Nos.), Pre-Inspection of test facility (2 Nos.), Discussion on Draft Legislation on GLP		
5	Science and Society Programmes	Introduce S&T applications for the benefit of society	5.00	6 new Projects. Quality fish seed production and pond management at eight locations in Uttaranchal. Core Support to 12 Science based NGOs for technology development and transfer in rural areas. Technology	10 new projects. Training of 40 rural beneficiaries at 4 Rural Technology Parks (RTPs) in North-East. Operationalization of 15 BIOFARM models. Core Support to 12 science based NGOs for technology	12 new projects. Training of 60 rural beneficiaries at 4 Rural Technology Parks (RTPs) in North-East. Operationalization of 15 BIOFARM models. Core Support to 12 science based NGOs for technology development and transfer in rural areas.	10 new projects. Training of 40 rural beneficiaries at 4 Rural Technology Parks (RTPs) in North-East. Core Support to 12 science based NGOs for technology development and transfer in rural areas. Identification of replicable technology		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
				Packages on -1) Improved Electro Dialysis system; 2) Improved Sarai Stove & Cooker; 3) Nursery Techniques	development and transfer in rural areas. Technology Packages on - Bio-fertilizer Pearl production	Group Monitoring Workshop (GMW) – 2. Initiation of coordinated programme -Non Conventional Energy Sources. Technology Packages on - Quality seed dried products	and Business models for rural application.		
6	S&T for Women	Introduce S&T applications for the benefit of women	4.00	6 new projects.25 on-going projects.150 Women to be trained in Women Technology Parks (WTPs).120 women to be trained in fodder production and feed preparation at 10 locations. 50 women to be trained in low cost sanitary napkin manufacturing	10 new projects, 20 on-going projects.100 women to be trained in WTP. Nursery on fodder production to be developed at 10 locations. 25 women scientists to be provided fellowship. Data collection in All India Coordinated Programme - Women's health initiated in 8 locations – 500 women will be benefited indirectly. 2 WTP to be set up – 40 women will be trained in various location specific technologies.50 women to be trained in low cost sanitary napkin production.	10 new projects, 35 on-going projects. Technology intervention in arid zone to be initiated – more than 100 women will be trained in various technologies relevant to the arid zone.2 WTP to be set up – 40 women will be trained in various location specific technologies. Conference of Third World Organisation of Women Scientists will be organised	12 new projects 65 on-going projects100 women to be trained at WTP. Energy technology parks to be set up. All India Coordinated Programme on nutrition for women to be conceived.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
7	Special Component Plan	Introduce S&T applications for the benefit of schedule casts	2.50	5 new projects. 50 SC youth to be trained in functional capability development. 50 persons to be trained in skill upgradation in non-traditional areas like electronics, Desk Top Publishing, etc.	5 new projects. 30 on-going projects. Skill development programme for 60 SC youth in advance technologies	8 new projects 30 on-going projects . 50 SC youth to be trained in various functional capability development programme. 70 persons to be trained for skill upgradation in both non-traditional and traditional areas.	8 new projects. 40 on-going projects. 50 SC youth to be trained in various functional capability development programme.70 persons to be trained for skill upgradation in both non-traditional and traditional areas.		
8	Tribal Sub-Plan	Introduce S&T applications for the benefit of tribal population	2.50	5 new projects. Training of 200 beneficiaries on processing and value addition of non timber forest produce; medicinal plant cultivation. 50 Filters for water purification to be installed for field trials. Breed improvement programme for cattle to be operationalized at 5 locations.	5 new projects Training at 10 locations to 100 beneficiaries on processing and product formulation in Medicinal plants.Training in processing and value addition of non-timber forest produce.50 Filters for water purification to be installed for field trials.	8 new + ongoing projects. (Processing and value addition of non timber forest produce; medicinal plant cultivation, processing and product formulation; land and water management). 50 Filters for water purification to be installed for field trials.	10 new + ongoing projects (Processing and value addition of non timber forest produce; medicinal plant cultivation; processing and product formulation; land and water management; bamboo cultivation). 70-80 beneficiaries to be trained in the above mentioned technology areas.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
9	S&T Entrepreneurship Development	Promote knowledge based and technology driven entrepreneurship	16.00	Establish OneTechnology Business Incubator. Create awareness on entrepreneurship among 2500 S&T students. Establish 200 microenterprises.	Establish OneTechnology Business Incubator and two Entrepreneurship Development Cells. Train 750 S&T persons in entrepreneurship and 400 teachers for promotion of entrepreneurship. Establish 200 microenterprises. Create awareness on entrepreneurship among 2500 S&T students. Impart skill training to 1000 persons.	Establish OneTechnology Business Incubator and two Entrepreneurship Development Cells. Train 500 S&T persons in entrepreneurship and 400 teachers for promotion of entrepreneurship. Establish 200 microenterprises. Create awareness on entrepreneurship among 2500 S&T students. Impart skill training to 2000 persons.	Establish OneTechnology Business Incubator, one S&T Entrepreneurs' Park and two Entrepreneurship Development Cells. Train 250 S&T persons in entrepreneurship and 200 teachers for promotion of entrepreneurship. Establish 200 microenterprises. Create awareness on entrepreneurship among 2500 S&T students. Impart skill training to 1000 persons.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
10	S&T Communication and Popularisation	Taking S&T to the people	15.00	20 training programmes covering 500 trainees. 10 scholarships/associateships. 5 field programmes. 12 lakh people to visit the Vigyan Mail. Films for TV with 6 hours of telecast time. Audio Programmes from 30 stations with 4 hours of broadcast time. 4 wallpapers, 3 popular magazines and 1 mobile exhibition. 2000 science clubs to be activated.	20 training programmes covering 500 trainees. 10 scholarships/associateships. 9 lakh students to participate in National Childrens' Science Congress. 3000 teachers to participated in the National Teachers' Science Congress. 5 field programmes. 3 lakh people to visit the Vigyan Mail. Films for TV with 4 hours of telecast time. Audio programmes from 30 stations with 6 hours of broadcast time. 1 book in Braille, 4 wallpapers, 4 popular magazines and 2 mobile exhibitions. 3000 science clubs to be activated.	25 training programmes covering 600 trainees. 10 scholarships/associateships. 50000 students to participate in National Childrens' Science Congress. 5 field programmes. Films for TV with 4 hours of telecast time. Audio programmes from 30 stations with 7 hours of broadcast time. 5 wallpapers, 4 popular magazines and 2 mobile exhibitions. 3000 science clubs to be activated	25 training programmes covering 600 trainees. 5 awards to be conferred. 10000 students to participate in National Childrens' Science Congress. 5 field programmes. Films for TV with 4 hours of telecast time. Audio programmes from 30 stations with 7 hours of broadcast time. 5 wallpapers, 4 popular magazines and 2 mobile exhibitions.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
11	State Science & Technology Programme	Encourage and promote S&T activities in the States and UTs	10.00	Installation and commissioning of Plasma Pyrolysis Waste Disposal Plant in Sikkim. Setting up two iron removal plants in Assam & Nagaland. Upgradation of reverse osmosis pilot plant at Uttarlai Air Force Station. Setting up of community defluoridation unit.	Installation and commissioning of Plasma Pyrolysis Waste Disposal Plants in two states. Setting up two additional iron removal plants in two North-Eastern States. Demonstration of two iron removal plants in North-Eastern States. .	Setting up of 2 Handpump attached defluoridation units. Setting up of two Reverse Osmosis desalination units. Demonstration of one unit of decentralised micro-hydel project.	Setting up of one bio-mass attached energy generation unit. Setting up of iron removal plant in two additional North-eastern states. Demonstration of handpump attached defluoridation unit in 2 sites. Demonstration of Plasma Pyrolysis unit in two States.		
12	Survey of India	Provide mapping services	24.55	Ground truthing of 200 topographical maps.	Updation of 500 topographical maps using satellite imagery. Installation of 110 mobile mapping systems. Installation of 56 dual frequency GPS and 65 single frequency GPS along with data download system. Digitisation of 250 maps on 1:50K/1:25K scale	Ground truthing of 450 topographical maps. Updation of 500 topographical maps using satellite imagery. Digitisation of 150 maps on 1:50K/1:25K scale	Ground truthing of 400 topographical maps. Digitisation of 100 maps on 1:50K/1:25K scale		
13	National Atlas & Thematic Mapping Organisation	Preparation of thematic maps	2.00	Preparation of 30 combined positives for thematic maps and national atlas	Preparation of 39 combined positives for thematic maps and national atlas	Preparation of 58 combined positives for thematic maps and national atlas	Preparation of 67 combined positives for thematic maps and national atlas		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
14	India Meteorological Department	Providing weather forecasts, cyclone warning and earthquake warning, etc.	90.00	Preparatory work to achieve targets mentioned in fourth quarter.	Preparatory work to achieve targets mentioned in fourth quarter.	Preparatory work to achieve targets mentioned in fourth quarter.	Installation of Digital Meteorological Data Dissemination (DMDD) equipment in New Delhi and field stations. Commissioning of 20 seismological observatories. Commissioning of Optimum Seismological network.		
15	National Centre for Medium Range Weather Forecasting	Provide medium range weather forecast and agromet advisories to farmers	20.00	Installation of Indigenous PARAM PADMA computer system. Complete benchmarking of codes on proposed CRAY XI system.	Testing of PARAM-PADMA system. Opening of 5 New Agromet Units	Posting of Numerical Weather Prediction (NWP) codes on PARAM PADMA. Field Tests of CRAY XI. Opening of 5 New Agromet Units. Installation of Web based data solution.	Opening of 5 New Agromet Units. Testing of web-based data solution		
16	Autonomous S&T Institutions	Carry out fundamental and applied research in their chosen area of science & technology		Preparatory work to achieve targets mentioned in second and fourth quarter.	Installation of High Altitude Gama Ray Telescope and four units of removal of arsenic in drinking water in West Bengal.	Preparatory work to achieve targets mentioned in fourth quarter.	Setting up of: 1) National Testing & Certifying Centre for Biomaterials and Biomedical devices; 2)Payload testing facility for Astrosat satellite; 3) Nano-powder materials production facility; 4) Astrophysics Centre; 5) Proteomics facility. Installation of: 1) Four units of removal of arsenic in drinking water in Rajasthan; 2) 3M Optical Telescope .		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
16.1	Indian Association for the Cultivation of Science, Kolkata	Scientific research in the areas of Molecular Science, Physics and Chemistry of Materials, Biological Sciences and Theoretical Sciences	25.00	R&D in Molecular Science, Physics & Chemistry of Materials, Theoretical Studie	R&D in Molecular Science, Physics & Chemistry of Materials, Theoretical Studie	R&D in Molecular Science, Physics & Chemistry of Materials, Theoretical Studie	R&D in Molecular Science, Physics & Chemistry of Materials, Theoretical Studie		
16.2	Bose Institute, Kolkata	a) Advance of knowledge by means of research, b) The diffusion of knowledge by organising discourses, demonstrations and lectures to be given by original workers in it and thinkers & c) To do all such things as are incidental or conducive to the attainment of the above objects or any of them	15.00	Research in improvement of plants: Biotechnological genomic and proteomic approach & Research in Protein structure, function and engineering	Research in Bioinformatics and Computational Biology & Drug Development : Target identification, design and synthesis	Research in Structural and Functional Genomics of Microbes and Higher Eukaryotes & Microbes and Microbial Products of Medical and Industrial Importance	Research in Basic and Applied Problems in Physical Science & Development of the Acharya Jagadis Chandra High Altitude Research Centre at Darjeeling for Multidisciplinary Research		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
16.3	Raman Research Institute, Bangalore	The main fields of research have been, and continue to be, Theoretical Physics, Optics, Liquid Crystals and Astronomy & Astrophysics. More recently, the Liquid Crystals research has been expanded so as to include soft-condensed matter and biological physics (membranes and single-DNA segments). Also, an Optics Lab has been set up for studying laser cooling and trapping of atoms, imaging through turbid media, and ultra-fast atomic processes using femtosecond (10^{15} sec.) laser pulses	20.00	Research on Theoretical Physics, Optics, Liquid crystals, Astronommy & Astrophysics will be continued	Research on Theoretical Physics, Optics, Liquid crystals, Astronommy & Astrophysics will be continued	Research on Theoretical Physics, Optics, Liquid crystals, Astronommy & Astrophysics will be continued	Res earch on Theoretical Physics, Optics, Liquid crystals, Astronommy & Astrophysics will be continued		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
16.4	Indian Institute of Astrophysics, Bangalore	The Indian Institute of Astrophysics is devoted to conduct research in the specialized area of Astrophysics, Physics and allied topics and develop instrumentation for its activities	19.00	a) Full utilization of the National Facility of the Himalayan Chandra Telescope (HCT) at Indian Astronomical Observatory, Hanle, b) Finalization of the design for six units and fabrication of their mechanical structure for High Altitude Gamma-ray Telescope (HAGAR), c) Setting up and operations of the laboratory for test and calibration facility for the ultra violet astronomy payload system	a) Regular science observations with the 50 cm telescope for the antipodal transient observatory at Hanle; observations of celestial objects with the National Facility of 234 cm Vainu Bappu Telescope and other instruments at Kavalur, Kodaikanal, Gauribidanur, Hosakote and Bangalore, b) Preparations for coordinated activities of IHY – 2007	a) Experimental/Observational studies with ground based and space borne instruments and modellings in astrophysical phenomena, physics and non-accelerator particle physics, b) Solar initiatives in Hanle, c) Development of focal plane instrumentation and in imaging techniques through deployment of CCDs, adaptive optics	a) Feasibility studies for the Himalayan Binocular Telescope, b) Strengthening and augmentation of observational and infrastructure facilities at Kavalur, Kodaikanal, CREST-Hosakote, construction of laboratories and hostel for students, post doctoral scientists, visiting professors and living accommodation for staff members at the field stations at Leh/Hanle and at the headquarters in Bangalore.		
16.5	Indian Institute of Geomagnetism, Navi Mumbai	To maintain continuity of geomagnetic observatory recordings at permanent observatories, which are established under the Institute. To set up a new magnetic observatory in the seismically	18.00	Observatory and Data Analysis (ODA) (continuing scheme), Upper Atmospheric Sciences (UAS) (continuing scheme)	Solid Earth Geomagnetism (SEG) (continuing scheme), Research Infra-structural facilities (continuing scheme), Panvel Campus Development work (Construction of Guest House & Auditorium)	Development of Geophysical Research Laboratory (GRL) Allahabad, Equatorial Geophysical Research Laboratory, Tirunelveli	Geomagnetic Science Museum and Training School, Mathematical Modeling		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		active region of Rajkot. Processing and publication of Indian Magnetic data bulletin. Evaluation of equatorial electrojet parameters. Study of ionospheric Sq, electrojet and counter electrojet current systems. Use of geomagnetic and other data for prediction of space weather. To update and to catalogue worldwide geomagnetic data. To promote growth of international cooperation in the field of geomagnetism and solar terrestrial relationship.							
16.6	Indian Institute of Tropical Meteorology, Pune	Aimed to advance the present knowledge relating to the	8.00	To carry out analysis-prediction experiments for severe weather systems affecting	To develop tailor made climate forecast products for application in agriculture, water	To carry out monsoon variability studies on intraseasonal to interannual time	To develop experimental techniques for the study of thunderstorm and		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		atmospheric physical and dynamical processes in to the topics leading to improvement in weather and climate prediction techniques and better understanding of the environment. The operational forecasts issued by the National Centre for Medium Range Weather Forecasting (NCMRWF) and the India Meteorological Department (IMD) are expected to benefit from the proposed programmes.		Indian subcontinent with high resolution model. To understand the causes of the decadal variability of monsoon rainfall over the Asian domain. To explore satellite-observed equatorial wave disturbances for the genesis of monsoon systems over the Indian region. To create a national palaeoclimatic data bank.	resources, public health etc. To develop hydrological model using satellite derived input and model parameters for the estimation of runoff, soil moisture deep percolation. To undertake simulation studies to evaluate the potential of different techniques for modification of fog/hail under different environmental conditions. To prepare an Atlas of simulated weekly currents and temperature of upper and lower layers of north Indian Ocean and Indian Seas for the last 50 years.	scales using some advanced tools like neural nets, wavelet transforms etc., in addition to the existing Atmospheric General Circulation Models (AGCMs). To study radiative forcing parameters due to aerosols and trace gases, and their role in climate and climate change. To develop chemical transport model for the troposphere and ion model for mesospheric phenomenon.	associated lightning processes. To validate models for simulation of boundary layer. To study the ion-nucleation mechanism in the atmosphere. To collect and analyse data on atmospheric electricity and electrical properties of clouds. To upgrade and augment the existing computational facilities		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
16.7	Sree Chitra Tirunal Institute for Medical S&T, Trivandrum	To promote biomedical engineering and technology. To provide and demonstrate high standards of patient-care in advanced medical specialities. To develop post-graduate training programmes of highest quality in advanced medical specialities and biomedical engineering and technology.	60.00	Work for establishing a National testing center will be continued so as to complete the project by 2006-07. Biomedical Technology : New Bioceramic composites, Bifurcated Graft are expected to be on Technology transfer and production stage during the year. Constructing two new hostels to accommodate 50 students each to be taken up.	Technology transfer and production stage for Advanced wound dressing, Chicken egg yoke derived antivenum for treatment of viper bites, Field test kit for testing the antibiotic sensitivity of mastitis milk. New courses in gender, ethics and health economics to be started.	The following products are expected to reach the final stages of development New Model Chitra Valve, Advanced state of the art Dental Composites, Calcium Phosphate based injectable Bone Cement for spinal and orthopedic surgery, High performance disposable ECG electrodes for neo-natal care	To expand the testing services provided by the Institute. Activities for setting up a National Facility for Tissue Engineering will be taken up so as to complete the work by 2006-07. To increase the hospital services at least by 25 percent to meet the rising demand for services.		
16.8	Birbal Sahni Institute of Palaeobotany, Lucknow	To promote higher study and research in Palaeobotany and allied disciplines (hereinafter included in the term Palaeobotany) for the advancement of learning and dissemination of knowledge in Palaeobotany in	6.25	Research activities of the institute will be carried out on the palaeobotanical investigations of Pre-Cambrian of Uttar Pradesh and Madhya Pradesh. The morphotaxonomy, stratigraphical and palaeoecological significances of plant fossils collected from different	The spore-pollen study from Gondwana sediments will be utilized to study the stratigraphically significant taxa and in demarcating palynozones. The coal petrographic study from Rajmahal and Godvari basins will be carried out for characterization of	The plant remains will be examined and studied from Deccan Intertrappean beds and Tertiary sequences for taxonomic identification and for interpreting the palaeogeography and palaeoenvironment. The non-marine and marine sequences of petroliferous basins will be studied for microfossils zonation	The Late Quaternary sediments will be dealt with the palynological study to be carried out from different areas of Madhya Pradesh, Andhra Pradesh, West Bengal, Ladakh Himalaya, Antarctica and Chilka Lake. Tree-ring sample from Himalayan region will be investigated to examine the climatic		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		the widest sense: To collaborate with universities and other institutions in India and abroad for advancement in palaeobotanical research. To organise symposia, seminars, conferences, courses, workshops, training programmes, exhibitions, etc. in Palaeobotany. To publish books, journals, memoirs, proceedings, etc in and related to Palaeobotany; To award tokens of merit, e.g., medals and prizes, for significant and outstanding palaeobotanical contributions ; To serve as a repository of palaeobotanical material and as a		formations of Gondwana sequence will be examined from Damodar, Rajmahal, Son-Mahanadi, Satpura and Wardha-Godavari basins.	coal.		variations at different time span in recent past.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		reference centre; To promote palaeobotanical applications in socio economic and industrial advancement of the country; To have a broad international outlook with a view to develop as an international palaeobotanical centre; To participate in global research efforts related to climatic and environmental changes; To collaborate in research efforts related to fossil fuel explorations; To promote national and international collaborations							

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
16.9	S.N.Bose National Centre for Basic Sciences, Kolkata	To foster, encourage and promote the growth of advanced studies in selected branches of basic sciences; to conduct original research in theoretical and mathematical sciences and other basic sciences in frontier areas, including challenging theoretical studies for future applications; to provide a forum for personal contacts and intellectual interaction among scientists within the country and also between them and scientists abroad; to train young scientists for research in basic sciences.	11.00	Construction of remaining 50% of the Phase II construction. Expansion of the research activities in the areas of Nano and Bio-sciences	Continuation of construction of remaining Phase II construction. Transdisciplinary research in the areas overlapping physical and medical including Ayurvedic sciences.	Exploration of the possibility of setting up laboratories in the areas of Nano-physics, Bio-physics and Low Temperature Physics and Medical-Physics.	The setting up of the Condensed Matter Lab.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
16.10	Agharkar Research Institute, Pune	To carry out basic research that would generate information on various life processes using plant, animal and microbial systems, To carry out applied research of national importance and transfer the technology to the industries, To assess the nutritional problems of humans and devise strategies for improvement of health, To improve the productivity of crop plants for sustainable agriculture, To disseminate the scientific knowledge through appropriate media like publications, popular articles, technical	6.00	Optimization of microbial processes for synthesis of metal-based nanoparticles; synthesis of silica, calcium and magnesium based crystallites; Development of ecofriendly stabilizing agents for nanostructured materials; Development of semiconductor quantum dots as biological labels; Cytotoxicity studies on nanosized materials; Nanotechnology for environmental pollution control, - Bioaugmentation of anaerobic treatment developed in anaerobic biofilm reactor to remove AOX from PAP industry wastewater; Development of bioremediation procedure for AOX contaminated soil;	Field testing of integrated arsenic removal process, Scale up of production of copolymer (PHB-co-PHV) using Bacillus cereus in 10 L fermenter, Commercialization of thrombolytic enzyme Actinokinase, Secondary metabolites of extremophilic bacteria including actinomycetes; Production and characterization of enzyme thermolysin from thermophilic actinomycetes, Scale up of production of dehairing enzyme identified from a soil bacterial isolate, Detection of active antimicrobial principle from plant based materials like Chitrak powder and lawsone leaf powder,	Isolation and studies of psychrophilic anaerobic bacteria showing enzymatic activities to degrade different biopolymers (cellulose, starch, protein, lipid, etc.); Investigation on psychrophilic methanogens; Biodiversity of psychrophilic methanogens from permanently cold environment (<15°C), Molecular characterization of extremophilic bacteria from different ecosystems, Biodiversity of historical Pashan lake near Pune with special reference to Actinomycetes, Investigation of archaeal community structure of anaerobic digesters using molecular technique such as DGGE	Development of a molecular linkage map for dicoccum wheat, Continuation of the analysis of mutant population for fatty acid composition; Stability of variant trait in M ₂ seeds using M ₃ seeds; evaluation of high oleic acid mutants for stability and agronomic performance, Hybridizations and advancement of the sesamum material and continuation of coordinated trials, Maize x wheat crosses for production of dihaploids in durum wheat will be standardized, bioreactor cultivation of Nothapodytes foetida, Conducting All India Co-ordinated Research Project on Wheat, Soybean, Grape and sesame.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		bulletins and conferences.		Information on biodiversity of organochlorine degrading bacteria in soil exposed to AOX containing wastewater from pulp and paper industry	Mechanism of antibiotic resistance plasmid curing by herbal naphthoquinones				
16.11	Wadia Institute of Himalayan Geology, Dehradun	To undertake, aid, promote, guide and coordinate researches in the Geology of the Himalaya and foster a tradition of scholarships. To carry -out research towards the development of new concepts and models concerning geodynamic evolution of the Himalaya through an integrated interdisciplinary approach. To coordinate research activity amongst different institutions and universities in the country	10.00	Research in the areas of Geodynamic and Crustal Evolution, Basin Evolution, Natural Hazards, Glaciology and Natural Resources, Paleoclimate and Environment, Studies in NE Himalaya	Research in the areas of Geodynamic and Crustal Evolution, Basin Evolution, Natural Hazards, Glaciology and Natural Resources, Paleoclimate and Environment, Studies in NE Himalaya	Research in the areas of Geodynamic and Crustal Evolution, Basin Evolution, Natural Hazards, Glaciology and Natural Resources, Paleoclimate and Environment, Studies in NE Himalaya	Research in the areas of Geodynamic and Crustal Evolution, Basin Evolution, Natural Hazards, Glaciology and Natural Resources, Paleoclimate and Environment, Studies in NE Himalaya		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		working in the field of Himalayan Geology and related areas. To organize workshops, seminars, symposia and training programs in specialized disciplines and on topics related to the geology of the Himalaya. To collaborate with foreign research organizations and universities in the fields relevant to the objectives of the Institute with special emphasis on application of new tools, methodologies and analytical techniques. To disseminate knowledge and information relating to geological and allied researches in the Himalaya through							

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		publication of monographs, research papers, maps, scientific reports, bibliographies, etc. To establish affiliation with recognized universities and centers of higher education to promote Himalayan geology and enable research scholars to register for post-graduate and research degrees.							
16.12	J.N.Centre for Advanced Scientific Research, Bangalore	To carry out front-line research in selected areas of science and engineering; To promote collaborative research with scientists at the Indian Institute of Science and other institutions in the country; To promote a national and international forum for in-	20.00	The Chemistry and Physics of Materials Unit pursues research on various classes and aspects of materials, that include thin films, molecular electronics, nanomaterials, oxides, polymers, porous solids, nanomolecular assemblies, green industrial solvents, employing a wide variety of	The newly introduced programme Project oriented chemical education provides opportunity for bright students of first year B.Sc. /B.Tech. /BE to the exciting world of doing science. These students will undergo intense training by way of listening to lectures and doing laboratory work at JNCASR.	The research programme of Engineering Mechanics Unit is concerned with investigations into basic problems whose solution has applications in aerospace and chemical technologies, meteorology and oceanography, agriculture etc. Specific areas include : flow control for aircraft and	The members of Theoretical Sciences Unit use a variety of techniques like quantum many body theory, electronic structure calculations and statistical mechanics to tackle several interesting problems like glass-forming liquids, network-forming liquids, organic molecules, conjugated polymers, inorganic solids, simple, noble and		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		depth discussions on important scientific topics in areas of vital interest to scientists of the Centre and in the country at large; To organize periodic winter and summer schools in certain areas, where young talented scholars would be associated; To provide opportunities for talented young students to carry out research projects; To provide facilities to visiting scholars and faculty from all over India and abroad to work for extended periods with the faculty of the Centre; To publish monographs and reports on frontier and futuristic areas of science as well		experimental and theoretical methods. At the Molecular Biology and Genetics Unit, the main emphasis of the work is to understand the molecular and genetic basis of infectious and hereditary diseases. Currently, diseases like malaria, AIDS, deafness and epilepsy are being investigated.	Members of CPMU conduct research at the frontiers of condensed matter and materials science using excellent facilities created at the Centre. In addition, at the unit experiments with embryonic stem cells are being carried out to study the molecular mechanisms of blood vessel formation as well as chromatin remodeling in the context of cancer.	underwater vehicles (submarines, torpedos) using polymers, stability theory, modeling insect flight, micro-air-vehicles clouds – their structure and dynamics near-surface temperature fields at night and frost and fog formation fluid mechanics on the nanoscale granular flows, avalanches, sediment transport etc, effect of sunspots and El Nino on the monsoons, convection in the tropics.	transition metals and their surfaces, ferroelectrics, complex insulators close to metallicity, nanoclusters, magnetic semiconductors, biomolecular systems and extended systems that exhibit spatiotemporal chaos. The Evolutionary and Organismal Biology Unit is the only outfit of its kind in India and one of the very few around the world carrying out research in chronobiology, behavioural ecology and sociobiology, evolutionary genetics and evolution ecology.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		as monographs of educational value.							
16.13	Technology Information, Forecasting & Assessment Council (TIFAC), New Delhi	TIFAC was set up in 1988 is to look ahead in technologies, assess the technologies and energise actions in selected areas.	15.00	Continue the programmes like Hydrogen Economy Technology program (HETP), Municipal Solid Waste (MSW), Technopreneur promotion programme (TEPP), MISSION REACH, Fly Ash Utilization Programme, Sugar Technology Mission (STM), Advanced Composites, Programme (ACP), Home Grown Technology (HGT)	Continue the programmes like Hydrogen Economy Technology program (HETP), Municipal Solid Waste (MSW), Technopreneur promotion programme (TEPP), MISSION REACH, Fly Ash Utilization Programme, Sugar Technology Mission (STM), Advanced Composites, Programme (ACP), Home Grown Technology (HGT)	Continue the programmes like Hydrogen Economy Technology program (HETP), Municipal Solid Waste (MSW), Technopreneur promotion programme (TEPP), MISSION REACH, Fly Ash Utilization Programme, Sugar Technology Mission (STM), Advanced Composites, Programme (ACP), Home Grown Technology (HGT)	Continue the programmes like Hydrogen Economy Technology program (HETP), Municipal Solid Waste (MSW), Technopreneur promotion programme (TEPP), MISSION REACH, Fly Ash Utilization Programme, Sugar Technology Mission (STM), Advanced Composites, Programme (ACP), Home Grown Technology (HGT)		
16.14	Vigyan Prasar, New Delhi	To undertake, aid, promote, guide and coordinate efforts in popularization of science and inculcation of scientific temper among the people and to enhance the knowledge,	7.00	The year 2005 has been declared as World Year of Physics. VP has initiated number of activities to celebrate the year. VP and DECU would continue with the production of software for EDUSAT science channel. VP would	Reach and scope of "Dream-2047" would be enhanced and increased. VP would explore the possibility of creating an audio science channel on WorldSpace Radio. VP would continue to produce software for WorldSpace Radio	Development of databases on popular science topics like atomic energy, biodiversity, environment, etc. would be taken up. The activity of science clubs would be further strengthened by establishing nodal clusters. VP would	VP would continue to organize workshops / seminars and participate in book fairs and exhibitions in different parts of the country. Programmes on astronomy related activities would be launched. VP would shift its office in NCMRWF building		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		awareness and interest about science and technology among all segments of the society. To provide and promote effective linkages on a continuing basis among various scientific institutions, agencies, educational and academic bodies, laboratories, museums, industry, trade and other organizations for effective exchange and dissemination of S&T information. To organise research work, courses, workshops, seminars, symposia, training programmes, fairs, exhibitions, film-shows, popular		coordinate the office of science channel with capsulation and editing facility at VP, New Delhi. Many more publications in Hindi and in major Indian languages would be brought out.	and broadcast on WorldSpace Radio and Gyan Vani.	continue with the Ham Radio activity in schools / colleges. VP would put in efforts to establish a few ham radio stations in the regions / areas prone to natural calamities / disasters like Uttaranchal.	at NOIDA and will start constructing its own office building and science park.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		discussions, street plays, quizzes, song dance-dramas etc., in furtherance of the objectives of the Society. To undertake activities/ programmes as may be necessary, incidents, or conducive to the attainment of all or any of the above objectives.							
16.15	International Advanced Research Centre for Powder Metallurgy (ARCI)	To carryout R & D on futuristic products and processes in the areas of Nanomaterials, Surface Engineering, Ceramic Processing, Laser Processing Materials and Fuel Cells. To develop and produce components and devices and to establish pilot facilities for prototype	25.00	The ISRO-DST SiC carbide facility will become fully operational during the year and start delivering SiC based substrate mirrors to ISRO. The Nanomaterial Centre will also become fully operational during the year and will start producing nanopowders of various types in Kg quantities and few of the applications for these nanopowders will	Centre for Fuel Cell Technology will develop the capability to fabricate and assemble a large number of PEM based fuel cell stacks. During the year using this PEM fuel cells emergency power, off-grid power and power for transport applications will be demonstrated by the centre. Unique facilities like Hot Isostatic Press (HIP) and CVD	Prototypes of Ceramic Domes and IR Windows will be delivered to DRDO during the year. The Micro Arc Oxidation would have been sold to 4-5 entrepreneurs in India and efforts will be underway to market the equipment abroad. The new version of Denotation Spray Coating incorporating a modified powder feeder will be developed and tested during the year. The technology for the	The rail & rail wheel laser hardening programme, laser tailor welded blank programmes and the laser drilling of aeroengine programmes will become operational during the year. A number of sophisticated facilities like diode lasers, Atomic Force Microscope, Microwave Sintering furnace, Pulsed Electrolysis facility and Ultrasonic Machining Centre		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		production. Technology demonstration and transfer		be established during the year. The Carbon nanotube facilities will be established during the year and will become operational by December, 2005.	coating facility will be ordered and installed during the year.	manufacture of the advanced version of the Electro Spark Coating technology will be transferred to an entrepreneur, so that he can make this equipment in large quantities and sell it to various industries in India.	will be established during the year		
16.16	National Accreditation Board for Testing and Calibration Laboratories, New Delhi	To promote, coordinate, guide, implement and maintain a accreditation system for laboratories suitable for the country in accordance with the relevant national and international standards and guides. To ensure that all measurements either during calibration or testing by accredited laboratories are traceable to appropriate national / international standards	5.00	NABL Accreditation / Surveillance and Re-assessments : NABL expects to grant fresh accreditation in over 25 disciplines to 15 testing facilities. Proficiency Testing and related activities : NABL plans to conduct 3 proficiency testing programmes in testing areas and 2 in calibration areas. It is anticipated that construction of NABL premises either at NABL acquired land at Gurgaon or at NPL Campus will start in 2005 -2006.	NABL Accreditation / Surveillance and Re-assessments : NABL expects to grant fresh accreditation in over 25 disciplines to 15 testing facilities. Proficiency Testing and related activities : NABL plans to conduct 3 proficiency testing programmes in testing areas and 2 in calibration areas.	NABL Accreditation / Surveillance and Re-assessments : NABL expects to grant fresh accreditation in over 25 disciplines to 15 testing facilities. Proficiency Testing and related activities : NABL plans to conduct 3 proficiency testing programmes in testing areas and 2 in calibration areas.	NABL Accreditation / Surveillance and Re-assessments : NABL expects to grant fresh accreditation in over 25 disciplines to 15 testing facilities. Proficiency Testing and related activities : NABL plans to conduct 3 proficiency testing programmes in testing areas and 2 in calibration areas.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		maintained at National Physical Laboratory (NPL) and at Bhabha Atomic Research Centre (BARC) through an unbroken chain of comparisons. To encourage Proficiency Tests / Inter-laboratory comparisons in order to ensure accuracy, reliability and reproducibility of test results. To ensure that the accredited laboratories adhere to all the conditions of accreditation, by periodic surveillance. To organize Awareness Programmes on all aspects of laboratory accreditation for the laboratories by various means including seminars,							

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		workshops and laboratory-industry - accreditation body meets etc. To acquire travelling standards and artifacts for conducting studies on measurements by the accredited laboratories and thereby to help improve reliability and reproducibility of results. To establish and maintain strong linkages with international and regional fora such as International Laboratory Accreditation Conference (hitherto referred to as ILAC), European Accreditation Cooperation for Laboratories (hitherto referred to as EAL), Asia Pacific							

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		Laboratory Accreditation Cooperation (hitherto referred to as APLAC) etc. and to take active participation in Plenary Sessions, Committee Meetings, evaluation of Accreditation Bodies in other countries under ILAC/APLAC umbrella etc. in order to maintain Mutual Recognition Arrangements (MRA).							
16.17	Centre for Liquid Crystal Research	To build a centre of excellence which will have a focus on basic science, and would also develop a bias towards technology, keeping in line with the international trends on liquid crystals materials and devices. In addition to basic	3.00	Photoinduced effects in liquid crystals : This topic is of great interest from the fundamental point of view and also has important potential applications for optical storage devices, optical communication, light dependent capacitance and resistivity etc.	Photoinduced effects in liquid crystals : This topic is of great interest from the fundamental point of view and also has important potential applications for optical storage devices, optical communication, light dependent capacitance and resistivity etc.	Photoinduced effects in liquid crystals : This topic is of great interest from the fundamental point of view and also has important potential applications for optical storage devices, optical communication, light dependent capacitance and resistivity etc. Restricted geometries:	Photoinduced effects in liquid crystals : This topic is of great interest from the fundamental point of view and also has important potential applications for optical storage devices, optical communication, light dependent capacitance and resistivity etc. Restricted geometries:		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
		research on the physical properties of the liquid crystals, the Centre will undertake projects on the application of liquid crystals. To undertake, carry on, develop and/or promote in every possible and conceivable manner advanced research in the field of liquid crystals and to contribute to the advancement of scientific knowledge in these subjects.		Restricted geometries: Investigations on finite size effects in anisotropic fluid media is a topic of significant current interest. We will undertake measurements to understand the influence of nanometer confinement in both well-defined and highly interconnected environments, on systems exhibiting competing length scales. Synthesis : The Centre has been actively pursuing and will continue programs in molecular engineering of both conventional as well as nonconventional anisotropic systems with special emphasis on design, synthesis and characterization of liquid crystals with novel structures.	Restricted geometries: Investigations on finite size effects in anisotropic fluid media is a topic of significant current interest. We will undertake measurements to understand the influence of nanometer confinement in both well-defined and highly interconnected environments, on systems exhibiting competing length scales. Synthesis : The Centre has been actively pursuing and will continue programs in molecular engineering of both conventional as well as nonconventional anisotropic systems with special emphasis on design, synthesis and characterization of liquid crystals with novel structures.	Investigations on finite size effects in anisotropic fluid media is a topic of significant current interest. We will undertake measurements to understand the influence of nanometer confinement in both well-defined and highly interconnected environments, on systems exhibiting competing length scales. Synthesis : The Centre has been actively pursuing and will continue programs in molecular engineering of both conventional as well as nonconventional anisotropic systems with special emphasis on design, synthesis and characterization of liquid crystals with novel structures.	Investigations on finite size effects in anisotropic fluid media is a topic of significant current interest. We will undertake measurements to understand the influence of nanometer confinement in both well-defined and highly interconnected environments, on systems exhibiting competing length scales. Synthesis : The Centre has been actively pursuing and will continue programs in molecular engineering of both conventional as well as nonconventional anisotropic systems with special emphasis on design, synthesis and characterization of liquid crystals with novel structures.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
16.18	State Observatory, Nainital	Research on areas related to Astronomy and Astrophysics. Upgrading the existing observing facilities at ARIES and installation of modern observing facilities for optical astronomy in India. Study of lower and middle atmosphere, Aerosols, Lower Atmosphere Wind Profile (LAWP). Installation of modern instruments (millisecond LIDAR, ST Radar and a dual frequency GPS Receiver) to conduct research on areas of Atmospheric Sciences. Popularization of astronomical sciences in the country.	10.00	Research work to be continued. Maintenance and upgradation of existing facilities at ARIES.	Research work to be continued. Maintenance and upgradation of existing facilities at ARIES.	Research work to be continued. Maintenance and upgradation of existing facilities at ARIES.	Research work to be continued. Maintenance and upgradation of existing facilities at ARIES.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
16.19	Grants to Professional Scientific Bodies	To promote scientific knowledge in India including its practical application to problems of national welfare; Publication of research journals in diverse scientific fields; Identify and encourage talent in scientific research; promote excellence in science; and to organise national/international seminars, symposia, lectures, discussion meetings and publications etc.	17.50	Support to Science promotion programme, research support to young scientist medal awardees, International collaboration/exchange programme, science education programme, organisation of endowment lectures, publication of proceedings/quarterly journal, young scientist programme, organising national/international seminars and symposia etc.	Support to Science promotion programme, research support to young scientist medal awardees, International collaboration/exchange programme, science education programme, organisation of endowment lectures, publication of proceedings/quarterly journal, young scientist programme, organising national/international seminars and symposia etc.	Support to Science promotion programme, research support to young scientist medal awardees, International collaboration/exchange programme, science education programme, organisation of endowment lectures, publication of proceedings/quarterly journal, young scientist programme, organising national/international seminars and symposia etc.	Support to Science promotion programme, research support to young scientist medal awardees, International collaboration/exchange programme, science education programme, organisation of endowment lectures, publication of proceedings/quarterly journal, young scientist programme, organising national/international seminars and symposia etc.		
17	Seismology (Mission Mode Project)	To improve upon the national capacity and capability for better earthquake related services	10.00	Preparatory work for targets mentioned in second, third and fourth quarters.	Site selection of 100 school earthquake observatories in NW & NE Himalayan Region	Installation of 50 strong motion instruments.	Commissioning of multi-parametric Geophysical Observatory in NW region. Installation of 50 Strong Motion equipments. Installation and commissioning of 30 school earthquake observatories in NW		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
							& NE Himalayan Region. Installation and commissioning of broadband seismographs.		
18	Technology for Bamboo Products (Mission Mode Project)	Develop and promote bamboo based products	34.00	Establish one manufacturing unit in major product segments. Developing one project profile for entrepreneurs. Preparing standards for one product. One construction and structural application. Developing one model of low cost housing.	Develop technology for processing bamboo shoots & establish units (2). Demonstrate commercial dyes and their applicability to bamboo products (1). Develop primary processing equipment (sliver/stock) (1). Develop configuration for hydraulic hot presses (1). Develop 3 bambusetum for holding elite germ plasm (1). Demonstration in major application segments (1). Trials of Tissue Culture material (1).	Establish one mfg. unit in major product segments. Develop one project profile for entrepreneurs. Developing and demonstrating one model of architecturally complex structures. 6 demonstrations in shoot producing areas for adoption. Establishment of units (100 KW-500KW) for electricity (1). Establish 3 units for manufacture of slivers & other intermediates. Produce training manuals in craft segment (1). Develop primary processing equipment (sliver/stick) - (1). Develop thin sliver mechanised equipment for producing 6-9 mm slivers (1).	Establish one mfg. unit in major product segments. Develop two project profiles for entrepreneurs. Prepare one product standards. Develop one model of low cost housing. Develop & demonstrate one model of architecturally complex structures. Establishment of units (100 KW-500KW) for electricity (1). Develop and demonstrate drum charring technology packages (6). Support establishment of 3 units for manufacture of coal. Support establishment of 2 units in 50 KW-100KW class for villages/ communities. Establish 3 units for manufacture of		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
							slivers & other intermediates. Establish mechanised blind making units (1). Produce training manuals in craft segment (1). Develop primary processing equipment (sliver/stick) - (1). Develop configuration for hydraulic hot presses (1). Develop 3 bambusetum for holding elite germ plasm (1). Establish an objective basis for assessment of bamboo resources in at least seven states based on satellite imagery.		
19	International S&T Cooperation	Promote bilateral, regional and multilateral S&T cooperation	25.00	200 exchange visits of Indian and foreign scientists. 20 visits of scientists for accessing major international facilities. 5 workshops for identifying mutual areas of interest. Under the UNDP Programme - Development and demonstration of	200 exchange visits of Indian and foreign scientists. 20 visits of scientists for accessing major international facilities. 10 workshops for identifying mutual areas of interest. Under the UNDP Programme - Training and re-training of	200 exchange visits of Indian and foreign scientists. 35 visits of scientists for accessing major international facilities. 15 workshops for identifying mutual areas of interest. Under the UNDP Programme - Preparation of course material.	200 exchange visits of Indian and foreign scientists. 20 visits of scientists for accessing major international facilities. 10 workshops for identifying mutual areas of interest. Under the UNDP Programme - Training of 200 candidates.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
				e-portal for skill training.	Trainers - 20.				
20	Synergy Projects	Nucleate or catalyse large multidisciplinary projects	7.00	Training programme for Rural Technology Action Groups (RuTAG). Construction of infiltration wells for water re-charging	Preparatory work to achieve targets mentioned in fourth quarter.	Preparatory work to achieve targets mentioned in fourth quarter.	Development of prototype for Vehicle Tracking and Control System (VTCS). Prototype development and testing for Intelligent & Interactive Telematics using Emerging Wireless Technology for Transport System (ITEWS).		
21	Information Technology	Develop a secure ICT infrastructure for information dissemination and e-governance	4.00	Develop a secure Information & Communication Technology (ICT) infrastructure. Programme specific application software development with user interface. Updation and maintenance of DST website.	Develop a secure ICT infrastructure. Programme specific application software development with user interface. Updation and maintenance of DST website.	Develop a secure ICT infrastructure. Programme specific application software development with user interface. Updation and maintenance of DST website.	Develop a secure ICT infrastructure. Programme specific application software development with user interface. Updation and maintenance of DST website.		

Department of Science & Technology

Sl. No.	Name of the Scheme	Intended Objective/ Outcome	Outlay 2005-06 (Rs. Crore)	April-June 05	July-Sept. 05	Oct.-Dec. 05	Jan.-Mar. 06	Processes/ Timelines of Approvals	Remarks/ Risk factors
22	National Training Programmes for Scientists & Technologists working with the Govt. of India	Provide holistic training to scientists and technologists	2.70	Foundation training for 25 Scientists. Administrative training for 25 officials	Training for 50 Senior/Middle Level Scientists. Foundation training for 25 Scientists. Administrative training for 25 officials	Training for 50 Senior/Middle Level Scientists.	Administrative training for 25 officials		
TOTAL OUTLAY			1250.00						