

**DETAILED PROJECT REPORT
FOR ESTABLISHMENT OF
NALANDA UNIVERSITY, BIHAR**



**EDUCATIONAL CONSULTANTS INDIA
LIMITED**

[A Government of India Enterprise]

Under Ministry of Human Resource Development

Sector 16 A, Plot 18 A, NOIDA - 201 301

Uttar Pradesh, INDIA

MARCH 2007

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Final Report

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PREFACE

The name "Nalanda" reminds one of the great seat of learning which once flourished in a small town in Bihar in days gone by, attracting students and scholars from many countries and serving as a forerunner of what in modern times would be called an international university. Although Nalanda is reported to have been visited by both Lord Buddha and Lord Mahavira at different times and the Mauryan Emperor Ashoka (3rd century B.C.) had built a temple at Nalanda, recent excavations and Hiuen Tsang's writings confirm that the university was a center of learning,, statecraft and academic discussions on theology and Buddhist philosophy at least from the 5th Century AD till about the 13th Century. The glorious traditions of this ancient seat of learning have been a proud heritage of both Bihar and India.

The state government of Bihar with an active support of the Central Government has been contemplating for long to resurrect the glory of the ancient Nalanda University through the establishment of a modern University of excellence at Nalanda which would attract students and scholars from all parts of the globe, integrate Buddhist philosophical thoughts with modern science, technology, economy and spirituality and also serve as an icon of Asian renaissance. The concept has attracted encouraging support from our President Dr. APJ Abdul Kalam, many political leaders of the World, (particularly from China, Japan, Thailand, and Singapore), several international organizations, and many intellectuals and scholars from different countries. To implement the idea the Government of Bihar under the dynamic leadership of the present Chief Minister Shri Nitish Kumar has Commissioned a Detailed Project Report from the Educational Consultants India Limited (A Government of India Enterprise under the Ministry of Human Resource Development) for visioning, planning the academics and assessing the resource requirement for the establishment of an international University of Excellence at Nalanda. Formulation of this Detailed Project Report would be the first step in converting a noble idea to physical reality and would help policy planners in marshalling human, intellectual, physical and financial resources for the purpose.

Ed.CIL feels greatly honoured for being given the exciting task of developing this Project and is encouraged by the positive efforts of His Excellency the President of India, Dr. A.P.J. Abdul Kalam in support of resurrecting the glory of the old Nalanda University through his various addresses at the Bihar Legislative Assembly, and the international meet at Singapore as well as through his interactions with several world leaders. His concept that "This university can be a place for meeting of minds from the national and international arena to do research on unity of minds with focus on philosophy linking science, technologies, economy and spirituality with reference to ancient and modern thinking" has been taken as the guiding objective in developing the Project Report. Dr. Kalam's assertion that "of it is a great opportunity for Bihar to house a major Universal Institute of Learning that can be a beacon of light for the modern world" and that he looked forward "to scholars from all countries the world coming here to create knowledge,

share knowledge and make Earth, a conflict free peaceful place" has provided very valuable inspiration to the Ed.CIL Team in developing the Project.

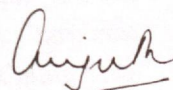
Ed.CIL is indebted to the Chief Minister Shri Nitish Kumarjee for his interactions with the Team and his advice and direction both in the formulation of the concept of the New University and its functions and in the implementation strategy to be adopted for converting the dream into reality. The Team has benefited greatly from the advice it has received from time to time from key officials of Bihar Government, in particular from Shri A.K. Choudhary, IAS, Chief Secretary to the Government of Bihar and Secretary cum Commissioner Dr. M. M. Jha, IAS during the preparation of the Report and in translating the vision, mission, objectives and the possible academic activities of the University keeping in view the long term horizon of the University.

Ed.CIL is particularly thankful to the office of the President of India by deriving the inputs of our President through Dr.Y.S.Rajan, Principal Advisor, CII, who has been a part and parcel of the visioning Team during its initial, interim and final deliberations and who took active part in the Team's discussions with the Hon. Chief Minister on 30th January 2007 when a clear road map of resurrecting the Nalanda University was drawn.

I would like place on record with gratitude and also thank the team members Prof. C.S. Jha, an eminent educationist of the country and Prof. K.L. Chopra (Ex-Director, IIT, Kharagpur) for providing their core valuable inputs in developing the vision, the mission and the directions for the New university. Ed.CIL also acknowledges with gratitude the contributions made by Dr. R. K. Suri, Manager (Projects) and former Head of the Department, Ed.CIL in developing the Project. The contributions of Director (Technical) Mr. A.K. Motwani is acknowledged.

I wish to thank the significant contributions of Dr. Chandrasekar in formulating this report. I also wish to thank other members Mr. Binod Doley, Mr. Gaurav Jaswal and Mr. Ravi Kant Patial and other member Ed.CIL, who have contributed directly and indirectly for the professional support in the formulation of the report.

I am sure this report will serve as blue print for resurrecting one of the oldest historic university into a world class learning centre in the areas of philosophy, theology, and modern science and technology.



*Mrs. Anju Banerjee,
Chairperson & Managing Director,
Educational Consultants India Limited*

EXECUTIVE SUMMARY

The President of India, while addressing the Bihar Legislature, stressed the need for resurrecting the Nalanda University, which is known to have the Nalanda heritage site established as early as 5th to 6th Century BC. The main objective of this knowledge centre is to disseminate knowledge and information on unity of minds, with focus on Buddhist philosophy linking science, technologies, economy and spirituality. This knowledge centre would also be a place for meeting of minds of national and international arena to carry out research. The new university is expected to serve as an icon of the Asian renaissance attracting scholars and students from all over the world. The Hon. Chief Minister, Shri Nitish Kumar have also been contemplating for long time with a vision to resurrect the Nalanda University. It is in this backdrop, Ed.CIL was approached for visioning the university, revisiting the academics and teaching/ learning methods of the erstwhile Nalanda University and creating a platform of national and international minds to come together.

Vision of the University is to establish an international center of excellence in higher learning, which would integrate modern, scientific and technological knowledge and skills with basic human values, would promote universal friendship, peace and prosperity through spiritual awakening of the individual and the society, and would endow itself with the same prestige and glory that the ancient Nalanda University enjoyed.

Mission of the University is to educate and train students to tackle the emerging challenges of the globalized technological society, to provide leadership in thought and action, and to develop entrepreneurial abilities for creation of wealth and prosperity for their own country and peace and happiness for all mankind.

The **objectives** of the University is to

- (i) Recapture in the modern context the holistic traditions of knowledge creation, acquisition and dissemination as practiced in Nalanda several centuries ago and the universal outlook with which scholars from many countries interacted there,



- (ii) Work towards building an inclusive society in a world free of war, terror, violence and fear,
- (iii) Create a unique partnership between the scholars and interested persons from Asian countries and countries having interest in the objectives of university academic matters,
- (iv) Understand Buddha's teachings in the contemporary context without excluding any other thoughts and practices from any other parts of the world,
- (v) Disseminate and advance knowledge, wisdom and understanding by teaching and research and by examples and influences of its corporate life and in particular the other objects set out in the preamble,
- (vi) Enhance research for greater interaction between Asian countries, particularly between South Asia and East Asia, bound by strong historical commonalities in areas like science, mathematics, astronomy, philosophy and cross cultural current issues and trends in science, technology and modern engineering including the emerging disciplines with integrated approach of learning in the areas of interest.

Unique features of the university

The University would have an international character by attracting high quality students, faculty and research staff from different parts of the world, having global perspective on educational issues, would offer programs of education in fields of interest to an international audience and would be involved in the creation and dissemination of new knowledge, techniques and technologies having permanent value and potential for world-wide application.

The University will be developed as a knowledge centre of excellence attracting students and scholars of very high intellectual potential, employing highly qualified and committed teachers and providing adequate learning infrastructure, modern and up-to-date curricula, excellent teaching learning methodologies, creative, innovative and socially beneficial research outputs, a participative and supportive governance system, active interaction and engagement with community and society, and an academic ambience that supports free discussion, creative thinking and innovation.

The university will offer integrated post-graduate and research degree programmes in a large variety of areas which will include fundamental and basic sciences, engineering and technology, social sciences and integrated areas of studies linked to national and international issues cutting across disciplines of learning. These disciplines shall relate to knowledge management, conflict resolution, natural resource management, WTO, Kyoto protocol etc.

The Schools of Learning will be set up to offer both stand-alone integrated postgraduate (PG) degree, research/ doctoral and post-doctoral programs with the aim to support core subjects, allied and integrated areas of studies and continual learning programs. The university will offer, where unique opportunity exists and there is need, undergraduate programmes, for example, the school of Languages shall offer UG programmes in Persia, Chinese, Korean, Japanese etc. These Schools will offer supportive credit courses not only to their own students but also to students of all other Schools and also non-credit and on-demand courses from time to time. Only in the School of Language, students would be permitted to exit the integrated postgraduate programme with a Bachelor degree (if they so desire), after satisfying the credit requisite for the same. The university in the initial phase is proposed to establish the following Schools of Learning:

- (i) ***School for Philosophy and Buddhist Studies:*** This school will focus on the academic programmes in the various areas of religion with the focus on Buddhism, History and Culture, Theology, Sociology and Social Anthropology, Social Welfare, Ethics, Interfaith Studies, Folklore Gandhian Philosophy etc. This will initially have three centres of study - Oriental Philosophy, Western Philosophy, and Buddhist & Company religion. In future the school shall also comprise of different such Centres of Studies.
- (ii) ***School of Information & Communication/ Informatics:*** This school will offer integrated post-graduate and research programmes in the areas of Computer Science & Engineering, Information Technology, Electronics & Communication and Electrical Engineering.
- (iii) ***School of Basic and Applied Sciences:*** The school will offer courses and integrated programmes in various disciplines such as Bioinformatics and Biotechnology (with emphasis Agriculture, Food, Forest, Medicine, Post harvest, Environment applications etc.), Physics, Earth & Space Ocean

- Sciences, Chemistry, Biology, Mathematics, Nanotechnology etc. with the aim to serve the other Schools/ Department/ Centres. In addition to these, the school at the appropriate time may offer courses/ programmes in Space Sciences, Earth Sciences, Ocean Sciences, and Ecology & Biotechnology etc.
- (iv) **School of Development Studies:** The School will offer courses and programmes in the areas of Economics, Business Economics, Sustainability in Economics, Welfare Economics and Ethics in Business and Management, Value Systems and related areas. The school shall also offer PG and research programmes in these identified areas.
- (v) **School of Natural Resource Management:** This School will offer integrated PG programme/ research in the areas of integrated disciplines of Agriculture, Forestry, Food Technology such as Post-harvest Technology, Food Science & Technology/ Food Processing Technology, Organic Farming, and sustainable water management, Fisheries Technology, conservation of Biodiversity, Biosphere/ Issues in Agenda 21/ Rio Convention/ Kyoto Protocol etc. The school shall offer courses and programmes relating to Natural Disaster Mitigation at the appropriate time. The school also offer elective/ sister courses which may be suiting to the needs of others Departments/ Centres with the aim to develop skills in the areas of need/ interest/ sector.
- (vi) **School of International Studies:** The school shall offer courses and integrated programmes in learning in the areas of Security and Peace Keeping, Conflict Resolution and Management, International Politics, International Trade & Politics etc. The school shall also offer research and post doctoral courses to the desirous students in these areas of interest with focus to local, national and international issues in the areas of interest.
- (vii) **School of Languages:** The school shall develop courses and academic programmes in languages from Asian, East Asia and South East Asian countries. The school is expected to offer graduate level course for the students who may like to pursue languages and further studies in their subject of interest.

The above schools of learning shall be established in phases depending on the availability of resources (physical, infrastructure and human). The Schools of Learning/

Centres dedicated for various studies in the specialized areas may be set up through Indian and international funded organizations.

Infrastructure

1. The floor area requirement for academics, administration and residential (staff and students) purposes shall be 204461 sq.m.
2. A total of 582 teaching faculty is estimated at the end of Phase II.
3. Nalanda University would offer only post-graduate and research degrees, eligibility for admission would be a graduate degree for normal 2-year post-graduate programs, a graduate/post-graduate degree for research programs and a senior secondary school certificate (Class XII pass) or equivalent for the integrated 5-year Master's programs.
4. Student intake plan year wise is as under.

Year Wise Student and Faculty Strength

Particulars/Years	Phase I					Phase II				
	1	2	3	4	5	6	7	8	9	10
Total Students	1137	2205	2902	3605	4530	4862	5117	5322	5527	5812
Total faculty	114	221	291	361	453	487	512	533	553	582
a. Professor	17	32	42	52	65	70	74	77	79	84
b. Associate Prof.	34	64	84	104	130	140	148	154	158	168
c. Assistant Professor	63	125	165	205	258	277	290	302	316	330

Key Assumptions are

- a. The Student to Faculty ratio has been taken at 1:10
- b. The eventual distribution between senior and junior level faculty is proposed in the ratio of 1:2:4 when the institute attains full student capacity, which is as per the regulations of UGC.
- c. It is also assumed that the total faculty includes 46 International faculties. Approx. 1% of total faculty every year has been assumed.
- d. US\$ 36,000 per annum will be paid to foreign faculties, which is estimated at approximately Rs.18 lakhs.

Capital Expenditure

Year Wise Summary of

(Rs. in Lakhs)

Sr. No.	Description	Total Cost (in Lakhs)	Year-wise Phasing											
			0	1	2	3	4	5	6	6	8	9	10	
1.	Land & Site Development	3575	358	358	358	358	358	358	358	358	358	358	179	179
2.	Building and Civil Works	21971	2197	2197	2197	2197	2197	2197	2197	2197	2197	2197	1099	1099
3.	Civil Works for Phase II of Schools	5700	-	-	-	-	-	-	-	-	-	-	-	-
4..	Equipment & Teaching Aids, Books, etc.	27913	-	2817	3084	2874	2630	2521	3208	2927	2734	2572	2546	
5.	Preliminary & Pre-Operative Expenses	640	250	390	-	-	-	-	-	-	-	-	-	
6.	Misc. Expenditure (Township & Related Activities)*	3000	750	750	750	750	-	-	-	-	-	-	-	
Total Project Cost		62799	3555	6512	6389	6179	5184	5075	5763	5482	5289	3849	3823	

Total Capital Expenditure Rs. 630 Crore

Particulars/Years	1	2	3	4	5	6	7	8	9	10
Salary Teaching	195	406	588	716	790	860	1059	1283	1505	1614
Salary Non-teaching	273	309	341	369	428	456	513	559	576	594
Departmental Educational Expenses	22	43	57	71	89	95	100	102	105	110
Other educational Expenses	22	43	57	71	89	95	100	102	105	110
General Expenses	22	43	57	71	89	95	100	102	105	110
Miscellaneous Expenses	602	1167	1537	1911	2402	2565	2687	2766	2845	2967
Total Recurring Expenses	1137	2011	2637	3207	3888	4167	4558	4914	5242	5504

Assumptions

- Departmental Expenditure: Rs. 2000 per student.
- Other Educational Expenditure: Rs. 2000 per student
- General Expenses: Rs. 2000 per student
- Miscellaneous Expenses: Rs. 27000 per student.

Total Recurring Expenditure Rs. 375 Crores Approximately.



PROJECT BACKGROUND

INTRODUCTION

Nalanda - 1 World Heritage site, located in the south east of Patna near a village called Nalanda - 2 is the 1st and 2nd largest library of the ancient Nalanda University. It is archaeologically dated back to the Gupta (4th - 5th century AD). Studies reveal that the university flourished during 5th and 12th Century AD. It was the first residential international University of the World, having about 10000 students and 2500 teachers.

Chapter 1: Project Background

Nalanda - 2 World Heritage site, located in the south east of Patna near a village called Nalanda - 2 is the 1st and 2nd largest library of the ancient Nalanda University. It is archaeologically dated back to the Gupta (4th - 5th century AD). Studies reveal that the university flourished during 5th and 12th Century AD. It was the first residential international University of the World, having about 10000 students and 2500 teachers.

Nalanda was a great centre of Buddhist, Jain, Hindu, philosophy and sciences 1500 years ago. For centuries the glory of the past the President of India, while addressing the Bihar Legislative Council the need for establishing a new University that would be a piece of modern world from the past and the international status to carry research work based on philosophy, knowledge, technology, environment and spirituality and also bring back the glory and prestige of Nalanda.

The Government of Bihar has decided to establish the University of Nalanda as an international university to promote the study of modern science and technology and to facilitate teaching and research in the disciplines of philosophy, technology and other fields.

Chapter 1

PROJECT BACKGROUND

1.1 INTRODUCTION

Nalanda – a World heritage site, situated in the south east of Patna near a village called ‘Bada Gaon’ in the vicinity still has the ruins of the ancient Nalanda University. It is traditionally dated back to the time of Buddha (6th – 5th century BC). Studies reveal that the university flourished during 5th and 12th Century AD. It was the first residential International University of the World, housing about 10,000 students and 2000 teachers attracting pupils from across the world. India at that time was considered a leading place for imparting knowledge to the rest of the civilized world – the era when India was a coveted place for scholars and students alike. The courses of study included scriptures of Buddhism (both Mahayana and Hinayana schools), Vedas, Hetu Vidya (logic), Shabda Vidya (Grammar), Chikitsa Vidya (Medicine) etc. The University received royal patronage of the great emperor Harshvardhana of Kannauj and Pala kings. Nalanda acquired a celebrity status all over the east as a center of Buddhist theology and educational activities. Such status and prestige (The significance of the university) continued until the end of the 12th Century.

Nalanda was a great seat of learning, scholarship, philosophy and statecraft 1500 years ago. For reviving the glory of the past, the President of India, while addressing the Bihar Legislature stressed the need for establishing a new University that would be a place for meeting minds from the national and the international arenas to carry research with focus on philosophy linking science, technologies, economy and spirituality and integrating both ancient and modern thinking.

The Government of Bihar has decided to establish the University of Nalanda of an international standard to respond to the needs of modern science and technology and also to facilitate teaching and research in the disciplines of philosophy, sociology, education.

languages and theology. The state government's Human Resource Development Department is seeking Ed.CIL's services for preparing a Detailed Project Report for establishment of the University of Nalanda, Bihar.

1.2 SCOPE OF THE PRESENT STUDY

The scope of the present study is to prepare a Detailed Project Report for the establishment of the University of Nalanda in Bihar. The report will present a composite account of vision, mission and objectives of the institute, the detailed academic plan and activities, a suitable governance model and the financial plan for establishing the institute covering infrastructure and recurring expenditure for the next 5-year period.

1.3 TERMS OF REFERENCE

The terms of reference for the present assignment included the following:

- a) Conduct a review study on the feasibility of setting up a University on International Standard at Nalanda to recapture its earlier glory, and the conceptual dimensions of its research and potential.
- b) Detail out the vision/ mission and objectives for the University, in the light of the conceptual framework, recent developments and proposed education policy of the state.
- c) Detail roles, functions and academic activities for the new university and the expected role to be performed in the state education system. Also detail/ position of the university in the state with reference to the sector such as philosophy, sociology, theology and language education etc.
- d) Prepare the academic plan by detailing the faculty/ departments/ center(s) of study with subjects/ disciplines major areas and their sub-divisions suiting the proposed academic programmes.
- e) Prepare the academic programme(s) of study at various levels (graduate, post-graduate, doctoral levels), and broad research areas to be undertaken in the university.

- f) Detail out statutory bodies of the University to facilitate functioning of academic and related activities including that of the Committees, Councils, Syndicate, Student Affairs, Staff Welfare etc.
- g) Prepare a broad Financial Plan for the University under the following sub-heads
 - i. Outlay of capital expenditure for 5 – 10 years
 - ii. Item-wise recurring expenditure for the period of 5 – 10 years
- h) Present a comprehensive organizational structure of the University along with the proposed faculties, centers, departments in administration, finance, academics, other related such as welfare, amenities, and linkage with university authorities. In the processes detail the powers, functions, regulations of key functionaries of university authorities.

1.4 APPROACH AND METHODOLOGY

- a) Ed.CIL constituted a Project Implementation Team as under:
 - (i) Prof. C.S. Jha, Team Leader and Institutional Visioning Specialist
 - (ii) Prof. K.L. Chopra as Education Planning and Administration Specialist
 - (iii) Dr. Viniti Agarwal as Education Finance
 - (iv) Dr. R. K. Suri, Head, Technical Assistance Division
 - (v) Dr. Chandrasekar, Policy and Governance System and Project Manager, Ed.CIL

Mrs. Anju Banerjee, Chairperson and Managing Director, Ed.CIL strategically guided the Team by way of policy decisions and directions throughout deliberations, discussions in-house, with client and in the needed hours.

- b) The Team deliberated in-house on the policy directions and decisions of the Government of Bihar for establishing the Nalanda University. The Team also consulted the background documents prepared in this respect, the speech of the President of India held at the Bihar Assembly and Draft Bill prepared by the Government for establishing the university. The Team consulted several times

with the key officials of the Government of Bihar, Human Resource Development Department, Dr. M.M. Jha, Commissioner cum Secretary, with the objective to understand the long-term perspective for setting up the new university. The Team also had detailed discussions with Dr. Y.S.Rajan, Principal Advisor, CII, New Delhi and their team of the President of India's Office, consulted various documents in this regard for visioning, articulating on the before coming to a consensus on Visioning, and articably on the academic issues and perspectives for the new University. Some key documents, which were consulted, are listed in Annexure I.

- c) One of the Team Members (Dr. Chandrasekar, Project Manager, Nalanda University) visited Patna to discuss with Commissioner cum Secretary, Dr. M. M. Jha, Human Resource Development Department, Government of Bihar and other key officials to understand the scope, objective and vision of the proposed university in Nalanda. A visit to the proposed site as acquired by the Government at Rajgir near Nalanda was also made.
- d) Ed.CIL has been kept informed by the Government of Bihar of the interest and shown by various international organizations for promoting Buddhist education to meet international needs in the vicinity of Nalanda. The Team is also aware that, several Asian countries such as Japan, Korea, Singapore, and China are keen to fund the setting up and resurrecting Nalanda University. It was against this backdrop that the Team has formulated the university academic plan, its focus, dimension and vision of the University.
- e) Ed.CIL presented the Draft of the Final Report to Hon. Chief Minister Shri Nitish Kumar Jee on 31st January 2007, with the aim to share the vision, mission, objectives, academic plan, the governance model and the infrastructure, resource and financial plan and finally the recommendations for implementation plan. While appreciating the main thrust of the Draft Report and its recommendations, the Chief Minister suggested a minor review of the infrastructure cost and the inclusion of the University's interaction with the nearby community in solving their day-to-day problems as one of the face of the university's activities. The Ed.CIL Team readily agreed to incorporate the suggestions.

Chapter 2

PROFILE OF STATE OF BIHAR AND NALANDA: THE GREAT SEAT OF LEARNING

2.1 THE STATE OF BIHAR

Bihar, the ancient land of Buddha has witnessed several golden periods in Indian history. It is the same land where the seeds of the first republic were sown, which cultivated the first crop of democracy. This fertile soil has given birth to several intellectuals, who spread the light of knowledge and wisdom not only in the country but also across the whole world. The state has its capital at Patna (the old Patliputra), situated on the bank of the holy river Ganga.. For its geographical location, natural beauty, mythological and historical importance, Bihar feels proud of the assets it has been gifted by time. Its moral contributions in the fields of arts-literature, religion and spiritualism, has no competitors. Centuries old stories related to this land are told even today. The state is the same kingdom, which during the Maurya and Gupta periods ruled large parts of the country as well as some parts of neighboring countries. Many great rulers like Ashoka, Chandragupta and Harshavardhan have lived here and Bihar feels a sense of pride for being the 'Karmabhumi' of Lord Buddha and Lord Mahavir.

The history of the land mass currently known as Bihar is very ancient. In fact, it extends to the very dawn of human civilization. Earliest myths and legends of Hinduism the Sanatana (Eternal) Dharma - are associated with Bihar. Sita the consort of Lord Rama, was a princess of Bihar. She was the daughter of King Janak of Videha. The present districts of Muzaffarpur, Sitamarhi, Samastipur, Madhubani, and Darbhanga, in north-central Bihar, mark this ancient kingdom. According to legend, the birthplace of Sita is Punaura, located on the west side of Sitamarhi, the headquarters of the district. Janakpur, the capital of King Janak, and the place where Lord Rama and Sita were married, lies just across the border in Nepal. It is no accident, therefore, that the original author of the Hindu epic - The Ramayana - Maharishi Valmiki - lived in Ancient Bihar. Valmikinagar

is a small town and a railroad station in the district of West Champaran, close to the railhead of Narkatiyaganj in northwest Bihar. The word Champaran is derived from *champa-arnya*, or a forest of the fragrant Champa (magnolia) tree. Prince Gautam attained enlightenment here and became the Buddha- at the present Bodh Gaya- a town in central Bihar; and the great religion of Buddhism was born. Lord Mahavira, the founder of another great religion, Jainism, was born and attained nirvana (death) at the same place. The tenth and last Guru of the Sikhs, Guru Gobind Singh was born and attained the sainthood of Sikhism, that is became a Guru at this place. A lovely and majestic Gurudwara (a temple for Sikhs) built to commemorate his memory - the harmandir is located in eastern Patna. Known reverentially as the Patna Sahib, it is also one of the five holiest places of worship (Takhat) for Sikhs.

The ancient kingdoms of Magadh and Licchavis, dates back to 7-8th century B.C., produced rulers who devised a system of administration that truly is progenitor of the modern art of statecraft, and the linkage of statecraft with economics. Kautilya, the author of *Arthashastra*, the first treatise of the modern science of Economics, lived here. Also known as Chanakya, the wily and canny adviser to the Magadh king, Chandragupta Maurya. As an emissary of Chandragupta Maurya, Chanakya traveled far and wide in pursuit of promoting the interests of the State and dealing with the Greek invaders settled in the northwest of India, along the Indus valley, who also succeeded in preventing the further onslaught of the Greeks. Megasthenes, an emissary of Alexander's General, Seleucus Nicator, lived in Patliputra (ancient name of Patna, the Mauryan capital) around 302 B.C. who left behind a chronicle of life in and around Patliputra. It also describes in vivid terms, the grandeur of life in Patliputra, a city established by King Ajatshatru, around 5th Century B.C., at the confluence of the rivers Sone and Ganga.

Another Mauryan king, Ashok, (also known as Priyadarshi or *Prīyadassi*), around 270 B.C., was the first to formulate firm tenets for the governance of a people. He had these tenets, the so-called Edicts of Ashok, inscribed on stone pillars, which were planted across his kingdom. The pillar were crowned with the statue of one or more lions sitting on top of a pedestal which was inscribed with symbols of wheels. The lion denoted

strength, the wheel denoted the eternal (endless) nature of truth (dharma), hence the name Dharma (or Dhamma) Chakra. This figure of lions, atop a pedestal, with inscription of a wheel, was adopted as the Official Seal of the independent Republic of India (1947). Ashok's dharma chakra was incorporated into the national flag of India, the Indian tricolor. Remains of a few of these pillars are still extant, for example at Lauriya-Nandan Garh in the district of West Champaran and at Vaishali, in the present district of the same name. Ashok, a contemporary of Ptolemy and Euclid, was a great conqueror. His empire extended from what is now the North West Frontier Province (in Pakistan) in the west, to the eastern boundaries of present India in the north, and certainly, up to the Vindhyan Range in the south. Ashok was responsible also for the widespread proselytization of people into Buddhism. He sent his son, Prince Mahendra, and daughter, Sanghamitra, for this purpose to as far south as the present country of Sri Lanka (Sinhala Dweep in ancient times, and Ceylon during the British Empire).

Ancient Bihar also saw the glorification of women in matters of state affairs. It was here that Amrapali, a courtesan of Vaishali (the present district of the same name) in the kingdom of the Lichhavis, attained and wielded enormous power. It is said that the Lord Buddha, during his visit to Vaishali, refused the invitation of many princes, and chose to have dinner with Amrapali instead. Such was the status of women in the Bihari society of several centuries B.C. A little-known, but historically and archaeologically documented, event is worth mentioning in this context. After his visit with Amrapali, Lord Buddha continued with his journey towards Kushinagar (also called Kusinara in Buddhist texts). He traveled along the eastern banks of the river Gandak (also called Narayani, which marks the western border of Champaran, a district now administratively split into two—West and East Champaran). At a spot known as Kesariya, in the present Purbi (meaning, East) Champaran district, Lord Buddha took rest for the night. It was here that he chose to announce to his disciples the news of his impending niravāṇa (meaning, death); and implored them to return to Vaishali. The Licchavis, most reluctantly and expressing their sorrow wildly, took leave and built a stupa there to commemorate the event. Lord Buddha had chosen that spot to announce his impending nirvana because, as he told his disciple Anand, he knew that in a previous life he had ruled from that place, namely, Kesariya, as

a Chakravarti Raja, Raja Ben. (Again, this is not just a mere legend, myth or folklore. Rather, it is a historically documented fact supported by archaeological findings. However, neither this part of Buddha's life, nor the little town of Kesariya, is well known even in India or Bihar.

At Nalanda, the world's first seat of higher learning, a university, was established during the Gupta period. It continued as a seat of learning till the Middle Ages, when the muslim invaders burned it down. The ruins are a protected monument and a popular tourist spot. A museum and a learning center- **The Nava Nalanda Mahavira** - are located here.

Nearby, Rajgir was capital of the Mauryan Empire during the reign of Bimbisara. Lord Buddha and Lord Mahavira frequently visited. There are many Buddhist ruins here. It is also well known for its many hot springs, which, like similar hot springs elsewhere in the world, are reputed to have medicinal property. This glorious history of Bihar lasted around the middle of the 7th or 8th century A.D. The Gupta Period with the conquest of almost all of northern India by invaders from the Middle East, the Gupta dynasty also fell a victim. In medieval times Bihar lost its prestige as the political and cultural center of India. The Mughal period was a period of unremarkable provincial administration from Delhi. The only remarkable person of these times in Bihar was Sher Shah, or Sher Khan Sur, an Afghan. Based at Sasaram which is now a town in the district of the same name in central-western Bihar, this jagirdar of the Mughal King Babur was successful in defeating Humayun, the son of Babur, twice - once at Chausa and then, again, at Kannauj (in the present state of Uttar Pradesh or U.P.). Sher Shah became the ruler of a territory that, again, extended all the way to the Punjab, who was a noted ferocious warrior but also a noble administrator - in the tradition of Ashok and the Gupta kings. Several acts of land reform are attributed to him. The remains of a grand mausoleum that he built for himself can be seen in today's Sasaram (Sher Shah's maqbara).

2.2 MODERN HISTORY OF BIHAR

During most of British India, Bihar was a part of the Presidency of Bengal, and was governed from Calcutta. As such, this was a territory very much dominated by the people of Bengal. All leading educational and medical centers were in Bengal. In spite of the unfair advantage that Bengalis possessed, some sons of Bihar rose to positions of prominence, by dint of their intelligence and hard labor. One such was Rajendra Prasad, native of Ziradei, in the district of Saran, who also became the first President of the Republic of India.

When separated from the Bengal Presidency in 1912, Bihar and Orissa comprised a single province. Later, under the Government of India Act of 1935, the Division of Orissa became a separate province; and the Province of Bihar came into being as an administrative unit of British India. At Independence in 1947, the State of Bihar, with the same geographic boundary, formed a part of the Republic of India, until 1956.

Resurgence in the history of Bihar came during the struggle for India's independence. It was from Bihar that Mahatma Gandhi launched his civil-disobedience movement, which ultimately led to India's independence. At the persistent request of a farmer, Raj Kumar Shukla, from the district of Champaran, in 1917 Gandhiji took a train ride to Motihari, the district headquarters of Champaran. Here he learned, first hand, the sad plight of the indigo farmers suffering under the oppressive rule of the British. Alarmed at the tumultuous reception Gandhiji received in Champaran, the British authorities served notice on him to leave the Province of Bihar. Gandhiji refused to comply, saying that as an Indian he was free to travel anywhere in his own country. For this act of defiance he was detained in the district jail at Motihari. From his jail cell, with the help of his friend from South Africa days, C. F. Andrews, Gandhiji managed to send letters to journalists and the Viceroy of India describing what he saw in Champaran, and made formal demands for the emancipation of these people. When produced in court, the Magistrate ordered him released, but on payment of bail. Gandhiji refused to pay the bail. Instead, preferred to remain in jail under arrest. Alarmed at the huge response Gandhiji was

receiving from the people of Champaran, and intimidated by the knowledge that Gandhiji had already managed to inform the Viceroy of the mistreatment of the farmers by the British plantation owners, the magistrate set him free, without payment of any bail. This was the first instance of the success of civil disobedience as a tool to win freedom. The British received, their first "object lesson" of the power of civil disobedience. It also made the British authorities recognize, for the first time, Gandhiji as a national leader of some consequence.

Sir Richard Attenborough's award winning film, "Gandhi", authentically, and at some length, depicts the above episode. (Raj Kumar Shukla is not mentioned by his name in the film, however.) The two images here are from that film. The bearded gentleman, just behind Gandhiji, in the picture on the left, and on the elephant at right, is Raj Kumar Shukla.

Modern India after 1950s was also a period when Hindi literature came to flourish in the state. Raja Radhika Raman Singh, Shiva Pujan Sahay, Divakar Prasad Vidyarthi, Ramdhari Singh Dinkar, Ram Briksha Benipuri, are some of the luminaries who contributed to the flowering of Hindi literature, which did not have much of a long history. The Hindi language, certainly its literature, began around mid to late nineteenth century. It is marked by the appearance of Bhartendu Babu Harischandra's (a resident of Varanasi in U.P.) drama "Harischandra". Devaki Nandan Khatri began writing his mystery novels in Hindi during this time (Chandrakanta, Chandrakanta Santati, Kajar ki Kothari, Bhootnath, etc.) He was born at Muzaffarpur in Bihar and had his earlier education there. He then moved to Tekari Estate in Gaya in Bihar. He later became an employee of the Raja of Benares (now Varanasi.) He started a printing press called "Lahari" which began the publication of a Hindi monthly, "Sudarshan", in 1898. One of the first short stories in Hindi, if not the very first, was "Indumati" (Pundit Kishorilal Goswami, author) which was published in 1900. The collection of short stories "Rajani aur Taare" (Anupam Prakashan, Patna, publishers) contains an extended history of the origin and evolution of the short story as a distinct literary form in the Hindi literature.

2.3 SOCIO-ECONOMIC PROFILE

After the carving of the new state of Jharkhand, the remaining part of Bihar comprises of 37 districts. The three top districts in Bihar are Patna (5.68%), East Champaran (4.75%) and Muzaffarpur (4.52%). These three districts have retained their rank and position vis-à-vis 1991 Census. Patna is the most populous district of the State. The three districts at the bottom are Sheohar (0.62%), Sheikhpura (0.63%) and Lakhisarai (0.97%). All these three districts are newly created districts, carved out of the old districts of Sitamarhi (Sheohar) and Munger (Sheikhpura and Lakhisarai) after 1991 Census. Sheohar is now the least populous district of the state. The average population of a district in Bihar works out to be 2239967. It is noteworthy that 11 out of the top 13 districts in order of population are from the North Bihar region, Patna and Gaya being the two exceptions, which belong to the Bihar Central region.

The population distribution and sex ratio is illustrated in Table 1.

Table 1: Population distribution, Percentage decadal growth rate, Sex-ratio and Population density

Sr. No.	India / State	Population 2001 Persons	Percentage Decadal Growth Rate Males	Sex-Ratio (Females/ 1000 Males) Females	Population Density per sq. km.					
					1981-91	1991-01	1991	2001	1991	2001
1	2	3	4	5	6	7	8	9	10	11
(i)	India	1,02,70,15,247	53,12,77,078	49,57,38,169	23.86	21.34	927	933	267	324
(ii)	Bihar	8,28,78,796	4,31,53,964	3,97,24,832	23.38	28.43	907	921	685	880

Censuses that the number of males and females are rarely at parity, the males generally outnumbering the females. The sex ratio, expressed as the number of females per 1000 males, indicates whether there is any deficiency or surplus of females in the population.

Bihar lies in the tropical to sub tropical region. Rainfall here is the most significant factor in determining the nature of vegetation. Bihar has a monsoon climate with an average annual rainfall of 1200 mm. The sub Himalayan foothill of Someshwar and Dun ranges in Champaran constitutes another belt of moist deciduous forests. There also consist of

scrub, grass and reeds. The rainfall is above 1,600 mm and thus promotes luxuriant Sal forests in the favored areas. The hot and dry summer gives the deciduous forests. The most important trees are Shorea Robusta (Sal), Shisham, Cedrela Toona, Khair, and Semal. This type of forests also occurs in Saharasa and Purnia districts.

The topography of Bihar can be easily described as a fertile alluvial plain occupying the Gangetic Valley. The plain extends from the foothills of the Himalayas in the north to a few miles south of the river Ganges as it flows through the State from the west to the east. Rich farmland and lush orchards extend throughout the state. Following are the major crops: paddy, wheat, lentils, sugarcane, jute (hemp, related to the marijuana plant, but a source of tough fibers and "gunny bags"). Also, cane grows wild in the marshes of West Champaran. The principal fruits are: mangoes, banana, jackfruit and litchis. This is one the very few areas outside China which produces litchi. Water like ground and mineral resources is of great significance as it provides means of drinking water for man and animals, irrigation for agriculture, industrial uses, production of hydro-electricity, transportation and recreation etc. The importance of water is so immense that the people in ancient times worshipped it. Bihar is richly endowed with water resources, both the ground water resource and the surface water resource. Not only by rainfall but it has considerable water supply from the rivers, which flow within the territory of the State. Ganga is the main river, which is joined by tributaries with their sources in the Himalayas. Some of them are Saryu (Ghaghra), Gandak, Budhi Gandak, Bagmati, Kamla-Balan and Mahananda.

There are some other rivers that start from the plateau area and meet in Ganges or its associate rivers after flowing towards north. Some of them are Sone, Uttari Koyal, Punpun, Panchane and Karmnasha. Bihar has several rivers, which make the water available for irrigation purpose and also help in generating the hydrothermal energy for the state. Apart from this they provide a medium for water transport, provide fishes for fishery industry and enrich the natural resources of state in many other ways. All the above rivers have their impact on the plains after State also has non-exhaustible source of

ground water, which is in use for drinking purposes, irrigation and industries. The mineral production in the state is promising.

Table 2: Mineral Production in Bihar (in Tonnes), 2004

Steatite	945
Pyrites	9,539
Quartzite	14,865
Crude Mica	53
Limestone	4,78,000

Source: www.bihar.nic.in

2.4 EDUCATION PROFILE AND STATISTICS

The education system in Bihar is similar to that followed in the National system and also in other states of India. The education is 6 years of primary education, 4 years of middle / secondary education and 2 years of Higher education. The state of Bihar follows the State Board of Secondary Examination after 10 years of schooling and 10+2 years of schooling.

The higher education in the state is supported by Universities established under State legislature. The state also comprises of Medical College & University, Law University, Technical University with Engineering Colleges under the Control of Government and few aided / managed / private sponsored. Recently, the Government of India has notified & upgraded, the oldest Bihar Engineering College to the level of a National Institute of Technology (a deemed university). The details of education statistics of Bihar is illustrated in Table 3.

Table 3: Educational Institutions

Category	Total Number	Total Enrolment	Number of Teachers	Teacher-Student Ratio
Primary School	68697	10473252	115486	63
Elementary School	13761	2548580	99181	49
Secondary School	4146	1092237	39356	43
Senior Secondary School	227	34842	6135	41
Pre Degree /Junior College	537	365708		
Board of Intermediate / Secondary Education	2	-	-	-
Degree College	742 (Arts/Sc./Com.)	627338 (BA/BSc.B.Com.)	-	-
Engg.College	9	6727 (B.E./B.Sc./B.Arch.)	-	-
Professional College	-	-	-	-
Medical College	23	15328 (M.B.B.S)	-	-
All University	17	35006 (MA/MSc/MCom.) 961 (Ph.D/D.Phil/D.Sc)	-	-
Central University	-	-	-	-
State university	12	-	-	-
Deemed University	2	-	-	-
Institution of National Importance	1	-	-	-

Category	Total Number	Total Enrolment	Number of Teachers	Teacher-Student Ratio
Research Institution	11	-	-	-
Teacher Training College	15	2735 (B.Ed./B.T.)	-	-
Teacher Training School	195	1529	-	-
Polytechnic Institutes	15	2833	-	-
Technical /Industrial/Arts & Craft School	51	7049	-	-

Source: www.bihar.nic.in

(- data not available)

Around, 17,516,607 children are currently enrolled in some form of educational institution at the elementary level. The DISE data for 2004 indicates that 10,917,135 are enrolled in government, local body and private recognized schools at the primary level and 1,936,213 at the upper primary level. The percentage of girls' enrolment is 44 percent and 38 percent at the primary and upper primary level respectively.

The education indicator for the state of Bihar is illustrated below.

Number of Habitations	79,139
Number of Schools	54,816
Number of Primary Schools	36,798
Number of Upper Primary Schools	18,018
Number of EGS	14,208
Number of Alternative schools	6,185

	Male	Female	Total
Gross Enrolment Rates	91%	88%	90%
Dropout Rate	54%	59%	57%
Out-of-School Children	10,32,277	10,18,597	20,50,874
6-11	4,79,433	5,72,239	10,51,672
11-14	5,52,844	4,46,358	9,99,202

Fig 1: Education Indicator of State of Bihar

2.5 EDUCATION SYSTEM IN BIHAR

2.5.1 Schooling

Historically, Bihar has been a major centre of learning, home to the universities of Nalanda (one of the earliest universities of India dating back to the fifth century) and Vikramshila. Unfortunately, that tradition of learning which had its origin from the time of Buddha or perhaps earlier, was lost during the medieval period when marauding armies of the invaders destroyed these centres of learning. Bihar saw a revival of sorts during the later part of the British rule when they established a University at Patna along with a few other centres of high learning, viz. Science College, Patna, Prince of Wales Medical College (now Patna Medical College and Hospital), and Bihar Engineering College (now National Institute of Technology, Patna). However, this early lead got lost in the post independence period when the politicians from Bihar lost out in the race of getting centres of education established in Bihar.

Modern Bihar has a grossly inadequate educational infrastructure creating a huge mismatch between demand and supply. This problem further gets compounded by the growing aspirations of the people and an increase in population. The craving for higher education among the general population of Bihar has led to a massive migration of the student community from the state. This has prompted many students to seek educational opportunities in other states, such as New Delhi and Karnataka, even for graduation level college education. It is a pleasant surprise to find that in spite of the meagre investment for education in Bihar, specially compared to other Indian states, the children have done very well. National institutes of learning such as IIT, IIM and AIIMS have always had a good representation from Bihar which is usually higher than their proportion of the population, though none of these institutions are physically located in Bihar. Other institutions of higher learning, and coveted positions in the government also show a greater share than the percentage of their population.

From the British times, Bihar has a system of district schools (called Zila schools), located at the headquarters of the older districts of Bihar. These schools were often run and administered by local village communities and some of them were known for their high quality education.

During the late 1970s and early 1980s, the state government took over management of most privately-run schools. This adversely affected school education in the state since the state government was ill equipped to manage the schools through its bureaucrats who were trained for law and order duties. Though the state accorded them government recognition, the standard started to fall. Thankfully, the state did not take over the schools run by the Christian missionaries and these schools provided a fillip to quality education in Bihar.

The central government runs a number of Kendriya Vidyalayas (Central Schools) and Jawahar Navodaya Schools for rural students. Jawahar Navodaya Schools started by the late Prime Minister Rajiv Gandhi have been particularly successful in providing quality education to the weaker sections of the society.

2.5.2 Technical, Vocational Education and Higher Education

India's Ancient Universities

Modern India has seen the rise of excellent educational and research institutions. Indian scientists have worked on the frontiers of knowledge and technology. But this development has historical foundation. Ancient Indian civilization had world's finest universities and centres of excellence. Indians can take proud of the fact that the world's first university was established in India. Our Rishis and scientists and intellectual make the picture complete in their contribution in the expansion of knowledge and wisdom. Dr. Jayant V. Narlikar's book " The Scientific Edge" has an exposition on the subject of ancient Indian Universities. The Vedic era was known for Rishis(sages) who individually propagated learning by opening schools around their homes. The students lived there as a part of the extended family of their guru. They would do menial work in the house in exchange for instruction. This family-based teaching system, commonly known as gurukul(family of the guru), evolved towards institutionalization over time. Very likely the different sages elected to live in communities by the side of the river, and these communities later became what we today call universities. Many European universities like Oxford, Cambridge and the Sorbonne as very old educational foundations. Indian universities predate them but did not survive because invading hordes destroyed them.

Huen T'sang, devoted a considerable part of his writings to Nalanda, a university in today's Bihar, and it is basically to those writings that India owe the present perception of what Nalanda might have been like in its heyday. He has described this University City as a confluence of Hindu, Jain and Buddhist religions. Chanakya, the teacher of Chandragupta, founder of the Mauryan dynasty and author of the classic volume Arthashastra, a Sanskrit text outlining theories and principles of governing a state, was born here and scholars like Nagarjuna, Buddhaghosha, Aryadeva and Jyotipala taught their various disciplines to a long line of pupils. Vardhamana Mahavira spent fourteen years of his life propagating the Jain religion here. Buddha himself had spent time here, and Nalanda is known as the place of Buddha's triumphs in religious disputations over

two scholars, Upali Grihapati and Deegh Tapasi, who subsequently joined the Buddhist faith. It was not until the times of Emperor Ashoka that Nalanda began to regain its lost reputation. Ashoka built a vihara to commemorate the birth of Buddha's favourite disciple Sariputta, who had been at Nalanda. One may consider it as the beginning of Nalanda as a university. The destruction of Takshashila in the fifth century A.D. created a void that Nalanda very ably filled, and it thereby acquired a premier status amongst the centres of education in India. The Chinese descriptions are indeed glowing in terms of the physical well-being and the intellectual heights attained here. The campus had had a very pleasing appearance, with gardens and palatial buildings, baths and playing fields, ponds and streams for boating and lotuses in abundance. Huen T'sang talks of towers rising to be engulfed in morning fog monks living in four storied hostels with observatories on the roofs of tall buildings and good workmanship on terraces. Although the Gupta kings followed the Vedic Hindu religion, they treated Buddhism with respect and patronized Nalanda. Later Emperor Harshavardhana donated much land to the university. There are records of people in nearby towns and villages providing food and commons to the university.

Unlike Takshashila, which ran more or less on the individual initiatives of its teachers, Nalanda was organised more along the lines of a modern university. It had a management council and an academic council with respective responsibilities towards the overall administration and academic planning. The university had a wide range of courses in both religious and secular fields. The former included the Hindu and Jain religions as well as more prominent Buddhism. Amongst secular studies, the humanities, sciences, mathematics and medicine were taught side by side with fine arts and vocational subjects. There were no fees for board, lodging and education of the selected students, although the selection process was a tough one. The dwarapanditas (scholars at the door) conducted the entrance test, only 20 to 30 percent of the entrants passed. Despite that, when Huen T'sang spent time here, there were ten thousand pupils at Nalanda, which he described as an educational institution that had no equal. This speaks for the urge for higher education in India at that time. The number of teachers was close to 1500, thus having a 7:1 student-teacher ratio, which can be termed as the best in the world even with today's

standard. The students were accommodated in single or double rooms in hostels. The walls of the students' rooms had alcoves for lamps and shelves for books and other personal effects. Women were also allowed to study here, but there were strict controls prohibiting men and women from meeting in private rooms. Nalanda successfully maintained its primacy for several centuries largely because it had an unbroken stream of excellent teacher-leaders at the helm, like Aryadeva, Kamalashela, Karnapati, Chandrapala, Dantabhadra, Dhyanchandra, Bhadrāsena and Sumatisena. Because of its reputation for a concentration of experts, many visitors came from far and near to Nalanda to satisfy their unsolved queries. Nalanda library was called Dharmaganja, and it was housed in three buildings named Ratnabodhi (Ocean of pearls), Ratnasagar (sea of pearls) and Ratnaranjak (pearls of recreation). The first buildings were nine storeys high and the two others were of six storeys each. The library also undertook to publish new volumes and reserve valuable manuscripts. Nalanda University did not die a natural death through deterioration. Like Takshshila it fell victim to the invading hordes of Bakhtiyar Khilji in the thirteenth century. The buildings, books and manuscripts, as well as the scholars, all were mercilessly annihilated. *Source. " the Scientific edge " by jayant V. Narlikar published by Penguin Books India ,New Delhi,page-32-39.*

India has a tradition of scholarly learning and scholarship. From time immemorial this country has attached importance to a search for higher knowledge and its diffusion, as that of Indian universities such as Nalanda and Takshila. According to Heuan Tsang, Nalanda University alone had 12,000 students. The historical material available states that the teacher-pupil ratio was 1:10 at Nalanda. Knowledge, both temporal and spiritual, was imparted in these institutions of higher learning and it is well known that the ancient Hindus had made significant advances in mathematics, astronomy, medicine and philosophy. Before the advent of British administration in this country and particularly during the Mughal period, this country had a magnificent system of 'Madarasas', 'Makhtabs' and 'Pathshalas' where higher education was imparted in the literatures and the sciences of those days. Nalanda was the largest residential centre of learning that the world had ever known. The library was located in a nine-storied building. The subjects taught at Nalanda University covered every field of learning. The courses offered at

Nalanda included the study of scriptures of Mahayana and Hinayana Schools of Buddhism, Brahminical vedic texts, Philosophy, logic theology, grammer, astronomy, mathematics and medicine. Over two thousand teachers and ten thousand students crowded its portals. Kings and Emperors built Monasteries here. There was a college of fine arts, which was endowed by the Gupta Emperor Kumaragupta.

The remains carefully excavated at Nalanda reveals Stupas, a large stairway, decorated panels, lecture halls, dormitories for the monks and students, and metal idols of the Buddha. The main monuments found at Nalanda are the Viharas or Monasteries, chaityas, Stupas, Votive or Commemorative. There are remains of temples with high standard of sculpture depicting household scenes, dancers, and foliage designs.

Recently there are many new memorials built at Nalanda, which displays truly rich history. One should definitely visit Nalanda once. The original Nalanda University was established and flourished in India from the 5th to the 12th centuries. It was a prestigious academic and meditation institute where many famous Indian Buddhist scholars and meditators such as Padmasabhava, Virupa, Naropa and Atisha studied. The work of these scholars formed the source material of the four major schools of Tibetan Buddhism: Nyingma, Kagyü, Sakyapa, and Gelugpa. In 1436, in recognition of Nalanda University's contribution to Tibetan Buddhism, the great Sakya Tibetan scholar and meditation master, Rongton Sheja Kunrig (1367-1449), founded Pal Nalanda Dharma Institute at Phenpo, Central Tibet. This prodigious institute graduated six thousand Tibetan scholars within the lifetime of its founder. Pal Nalanda Dharma Institute flourished until Chinese communists forcibly closed it, during the 1949 invasion and subsequent occupation of Tibet.

In the last 40 years, Buddhist meditation, studies and values have been widely introduced and are blossoming at an accelerated pace in the West. The dedicated efforts of Buddhist scholars, combined with modern communications, have helped many Westerners realize the practical benefits of Buddhist practice. Due to these factors, it is timely to reestablish and preserve the tradition of scholarly investigation coupled with meditative practice

developed at the original Nalanda Institutions. The Nalanda Institute (USA) honors the legacy of its predecessors, while enlarging the scope of traditional programs to include themes relevant to current American culture.

The Government of India for several years has been contemplating on the establishment of Nalanda University. It is only recently, with President of India Dr. A.P.J. Abdul Kalam addressing the legislative assembly on 28th March 2006 expressed positive approach on establishment of Nalanda University. With words and directions of the President, the State Government is eagerly looking forward to establish the university. The State Government has gone forward in deliberating with several stakeholders, including the Government of India, Indo-Japan Cultural Academy, Government of Singapore / Korea for financial support / assistance for establishment of the University.

The recent visit of Chinese premier Hu Jintao's visit to India conveyed his talks for building an International University in Bihar. The premier considers that, University is prosperous for East Asians for rediscovering Buddhism, the Nalanda University will be a labour of love and spiritual debut. The university is expected to be kick start economic reconstruction in the long neglected state and put back into reintegration Asia.

It is also expected that East Asian Enthusiasm for the Nalanda University Project and development of Buddhist circuit could change face of not just Bihar but much to Eastern Subcontinent. There are several initiatives from the Government of India and China for initiating Buddhist Studies in land of Bihar, but are still in small endeavours. Building an international university in Nalanda is a grander scheme to build infrastructure of every possible kind in Bihar. This report is the tangible outcome of the study team in the direction for establishing an International learning centre of grander scheme i.e. "Nalanda University" with several schools of studies in the ambience of ancient scholarly learning.

Chapter 3

HISTORICAL PERSPECTIVES AND JUSTIFICATION FOR RESURRECTION

3.1 THE NALANDA TRADITION AND GLORY

As already mentioned in Chapter 2, the history of Nalanda, the ancient university town of Bihar, goes back to the days of Buddha and Mahavira in the Sixth Century B.C. The town was home to Nalanda Mahavihara, a monastic university of international repute. There are many versions of what the term *nalanda* means. One is that *nalam* (lotus) and *da* (to give) combine to mean "giver of the lotus". Since the lotus is supposed to represent knowledge, *Nalanda* means "giver of knowledge". The university of Nalanda, a suburb of Rajgir in ancient times, is just off the main road from Rajgir to Patna (some 90 kilometers from Patna, the capital of Bihar). Both Buddha and Mahavira are reported to have often stayed at Nalanda during the rainy season. Buddhist scriptures reveal that they both once stayed at Nalanda at the same time, but there is no record of them meeting one another.

Ancient Buddhist sources say that Asoka, the Mauryan emperor (Third Century B.C) built a temple at Nalanda. It was a flourishing hub where the philosopher and alchemist, Nagarjuna, studied and taught in the Second Century A.D. However, excavations have not revealed anything to suggest that the site was occupied before the Gupta period (Fifth Century A.D.), the earliest finds being a copper plate of Samudragupta and a coin of Kumaragupta (414-455 A.D.). Fa-Hien who visited in the Fifth Century A.D. makes no mention of the massive monastic establishments at Nalanda. But Hiuen Tsang who came in A.D 637 during Harsha's reign (606-647 A.D.) refers to the great monastery that Harsha endowed with liberal grants. The International Scholastic Centre at Nalanda described by later Scholars as an International University was founded much earlier than the 5th century A.D. There were scholars from China, Japan, Korea, Mongolia, Tibet, Nepal and Ceylon. At one time there were thousands of scholars at Nalanda and they were lodged in smaller cells which can still be seen in ruins.

Francis Buchanan discovered the ruins of Nalanda University in A.D. 1812 when he surveyed the area, having heard of a vast complex of ruins in the vicinity.



The main stupa ...

Though he did not identify it as Nalanda, he made a record of the different versions of the place given to him by the locals. The Brahmins told him that it was Kundinapura, the birthplace of Rukmini, wife of Lord Krishna, while a Jain priest told him that it was the region inhabited by Raja Srenika, a Jain, and his ancestors.

Buchanan decided that the ruins were a place of worship and royal residence, which seemed to fit in with what he saw — the several heaps and images pointed to religion while the dimensions of the place and the large number of courts suggested a palace or royal dwelling. It was Sir Cunningham who identified the sprawling complex of ruins as the long forgotten, once renowned Buddhist Monastic University or the Nalanda

Mahavira in 1861-62. Nalanda was the biggest residential university in ancient India and the largest residential centre of learning that the world had ever known. It also is the largest archaeological site in India spanning several square miles. At the height of its glory, Nalanda is said to have accommodated 10,000 students and 1500 teachers. The university was marked by a lofty wall and one gate. There were three magnificent libraries which were located in a nine-storied building. The library, RatnaSagar is reported to have had 9 million volumes. It was a renowned centre of Buddhist theology and scriptures and on diverse subjects such as logic, grammar, medicine, and later on, even purely texts like the *Atharva Veda*. The courses offered at Nalanda included the study of scriptures of Mahayana and Hinayana Schools of Buddhism, Brahminical vedic texts, Philosophy, logic theology, grammer, astronomy, mathematics and medicine. A vast amount of what is considered to be Tibetan Buddhism (Vajrayana) actually stems from the late (9th-12th century) Nalanda teachers and traditions. Other forms of Buddhism, like the Mahayana followed in Vietnam, China, Korea and Japan, found their genesis within the walls of the ancient university. Theravada, the other main school of Buddhism, followed in Sri Lanka, Myanmar, Thailand, Cambodia, and elsewhere, and later the mystic Theravada schools also developed here.

Nalanda saw the rise and fall of many empires and emperors who contributed in the development of the University. Many monasteries and temples were built by them. King Harshwardhana gifted a 25m high copper statue of Buddha and Kumargupta endowed a college of fine arts ere. Nagarjuna- a Mahayana philosopher, Dinnaga- founder of the school of Logic and Dharmपाला- the Brahmin scholar, taught here. The famous Chinese traveller and scholar Hieun-Tsang stayed here and has given a detailed description of the situations prevailing at that time. Careful excavation of the place has revealed many stupas, monasteries, hostels stair cases, meditation halls, lecture halls and many other structures which speak of the, splendour and grandeur this place enjoyed, when the place was a centre of serious study. A large number of ancient Buddhist establishments, stupas, chaityas, temples and monastery sites have been excavated and they show that this was one of the most important Buddhist centres of worship and culture.

Regarding the historicity of Nalanda, we read in Jaina texts that Mahavira Vardhamana spent as many as fourteen rainy seasons in Nalanda. Pali Buddhist Literature, too, has ample references to Nalanda, which used to be visited by Lord Buddha. During the days of Mahavira and Buddha, Nalanda was apparently a very prosperous temple city, a great place of pilgrimage and the site of a celebrated university. It is said that King Asoka gave offerings to the Chaitya of Sariputra at Nalanda and erected a temple there. Taranath mentions this and also that Nagarjuna, the famous Mahayana philosopher of the second century A.D., studied at Nalanda. Nagarjuna later became the high priest there. The Gupta kings patronized these monasteries, built in old Kushan architectural style, in a row of cells around a courtyard. Ashoka and Harshavardhana were some of its most celebrated patrons who built temples and monasteries here. Recent excavations have unearthed elaborate structures here. Hiuen Tsang had left ecstatic accounts of both the ambiance and architecture of this unique university of ancient times. Modern historians have tentatively dated the founding of a monastery at Nalanda as being in the fifth century. However, this may not be accurate. For example, the standard biographies of the teacher Nagarjuna, believed by most historians to have been born around 150 AD, are quite specific about his having received ordination at Nalanda monastery when he was seven years old. Further, his teacher Rahulabhadra is said to have lived there for some time before that. There was a monastery or monasteries at Nalanda long before the foundation of the later Great Mahavihara. At the time Hsuan Chwang stayed at Nalanda and studied with the abbot Shilabhadra, it was already a flourishing centre of learning.

In many ways it seems to have been like a modern university. There was a rigorous oral entry examination conducted by erudite gatekeepers, and many students were turned away. To study or to have studied at Nalanda was a matter of great prestige. However, no degree was granted nor was a specific period of study required. The monks' time, measured by a water clock, was divided between study and religious rites and practice. There were schools of study in which students received explanations by discourse, and there were also schools of debate, where the mediocre were often humbled, and the conspicuously talented distinguished. Accordingly, the elected abbot was generally the most learned man of the time. During the Gupta age, the practice and study of the

Mahayana, especially the Madhyamaka, flourished. However, from 750 AD, in the Pala age, there was an increase in the study and propagation of the tantric teachings. This is evidenced by the famous pandit Abhayakaragupta, a renowned tantric practitioner who was simultaneously abbot of the Mahabodhi, Nalanda and Vikramashila monasteries. Also Naropa, later so important to the tantric lineages of the Tibetan traditions, was abbot of Nalanda in the years 1049-57.

Much of the tradition of Nalanda had been carried into Tibet by the time of the Muslim invasions of the twelfth century. While the monasteries of Odantapuri and Vikramashila were then destroyed, the buildings at Nalanda do not seem to have suffered extensive damage at that time, although most of the monks fled before the desecrating armies. In 1235 the Tibetan pilgrim Chag Lotsawa found a 90 year old teacher, Rahula Shribhadra, with a class of seventy students. Rahula Shribhadra managed to survive through the support of a local brahmin and did not leave until he had completed educating his last Tibetan student.

Excavations have uncovered nine levels of occupation and six monasteries. Nalanda is a massive complex of *stupas*, *chaityas* (temples) and *viharas* (monasteries). It has been rebuilt extensively at different times. One can identify the levels built by the Guptas (Fifth Century A.D.), the Sungas (Ninth Century A.D.) and the Pala kings of Bengal (12th Century A.D). Out of respect for religious sentiment, each dynasty covered up what had been built earlier and built afresh over it instead of destroying earlier constructions, which are clearly visible. The sheer expanse of the site and the planned and manner in which the blocks have been neatly laid out is astounding. The bricks are much larger than normal size and are of excellent quality that is evident from the fact that they have survived the ravages of time. The brick walls were plastered over with lime of which some traces can be seen.

The monasteries have been built in neat blocks with cubicles of either single or double occupancy for the monks. Niches have been built in the walls for books, lamps and other equipment. The walls are of brick and six feet thick, meant to insulate the room from

extreme weather conditions. In addition there are lecture halls, granaries and laboratories. Several little *stupas* liberally dot the area, built in memory of teachers who passed away. A number of ruined structures survive. Nearby is the Surya Mandir, a Hindu temple. The known and excavated ruins extend over an area of about 150,000 square metres, although if Xuanzang's account of Nalanda's extent is correlated with present excavations, almost 90% of it remains unexcavated. A rich collection of stone and bronze objects are displayed at the Archaeological Museum. A number of images of the Buddhist creed, and a few from the Hindu pantheon, have been found.



... and the student's hostel at Nalanda.

Legends say that a fire that destroyed three great libraries of Nalanda was started by the supernatural powers of *tantric* ascetics enraged by the pranks of students. There is evidence of large-scale destruction by fire, some charred walls and samples of burnt rice that are displayed in the museum. The destruction of the universities at Nalanda, as well as the destruction of many temples and monasteries throughout northern India which housed centers of learning, is considered by many historians to be responsible for the sudden demise of ancient Indian scientific thought in mathematics, astronomy, alchemy, and anatomy.

Nalanda's decline coincided with the eroding popularity of Buddhism in most parts of India, loss of royal patronage and the vigour with which Hinduism, under the likes of Shankaracharya, made a spirited comeback. The Muslim onslaught was the last nail in the coffin, and huge tongues of flames, the source of which is disputed, licked the last traces of life from the once flourishing town.

3.2 SPREAD OF BUDDHISM AND INTERNATIONAL INTEREST IN BUDDHIST TRADITIONS

3.2.1 Spread of Buddhism

The Buddhist king Asoka, who reigned from about 268 to 239 B.C.E., sent the first Buddhist missionaries to Sri Lanka. From this missionary effort grew the *Theravada* Buddhism ("tradition of the elders") that now dominates all the Buddhist countries of Southeast Asia with the exception of Vietnam. Asoka also left behind the Buddhist concept of a "righteous king" who gives political expression to Buddhist values. This ideal has been embodied in recent times by King Mongkut in Thailand and Aung San Suu Kyi, who won the 1991 Nobel Peace Prize for her nonviolent resistance to military repression in Burma.

Two major new movements radically transformed the Indian tradition.

1. The first was known as the *Mahayana* ("Great Vehicle"). The *Mahayana* preached the ideal of the *bodhisattva* who postpones nirvana to help others escape the cycle of rebirth.
2. The second was *Tantra* or the *Vajrayana* ("Diamond Vehicle"). *Tantra* developed a vivid and emotionally powerful method to achieve liberation in this life.

Buddhism entered Tibet in the 7th century and established itself as a powerful combination of Indian monasticism and Tantric practice. Tibetan Buddhism eventually developed four major schools, including the Geluk School of the Dalai Lama. Today, the 14th Dalai Lama carries Buddhist teaching around the world.

Buddhism entered China in the 2nd century when many Chinese were disillusioned with traditional Confucian values. To bridge the gap between the cultures of India and China, Buddhist translators borrowed Taoist vocabulary to express Buddhist ideas.

Buddhism however became distinctively Chinese in character: more respectful of duties to the family and the ancestors, more pragmatic and this worldly, and more consistent with traditional Chinese respect for harmony with nature. During the T'ang Dynasty (618-907), Buddhism was expressed in a series of brilliant Chinese schools, including the Ch'an School of meditation that came to be known in Japan as Zen. From China, Buddhism spread to Korea, Japan, and Vietnam.

Buddhism entered Japan in the 6th century and was quickly allied with the power of the Japanese state. Buddhist Tantra was given distinctive Japanese expression in the Shingon School, and the Tendai School brought the sophisticated study of Chinese Buddhism to the imperial court.

During the Kamakura period (1192-1333), Japan suffered wide social and political unrest. Convinced that they were living in a "degenerate age," the brilliant reformers

Honen (1133-1212), Shinran (1173-1262), and Nichiren (1222-1282) brought a powerful new vision of Buddhism to the masses. In the Kamakura period a series of charismatic Zen masters gave new life to the ancient tradition of Buddhist meditation.

Today, Buddhism reaches most of the world, including Europe, Australia, and the Americas.

3.2.2 International Interest in Buddhist Traditions

As mentioned above, the teachings of Lord Buddha were carried to many lands by his disciples and Buddhism flourished in many south and south Asian countries. Today, it forms a major part of the population in many of these countries e.g. Thailand (95%), Cambodia (90%), Myanmar (88%), Bhutan (75%), Sri Lanka (70%), Tibet (65%), Laos (60%), Viet Nam (55%) Macau (45%), and Taiwan (43%) (Source: Adherents.com) and has sizeable followings in China, Japan, and South Korea. China has the largest Buddhist population in the world of some 102 millions, whereas Japan has 89.65 million, Thailand 55.48 million, Vietnam 49.69 million, Myanmar 41.61 million, Sri Lanka 12.54 million, South Korea 10.92 million, Taiwan 9.15 million and Cambodia 9.13 million. India, the birthplace of Buddhism, comes 10th in Buddhist population in the world having only some 7 millions under this faith. (Source: Ash, Russell. *The Top 10 of Everything*, DK Publishing, Inc.: New York (1997), pg. 160-). Pilgrims from countries outside India continue to visit the Buddhist shrines in India and many have contributed significantly to setting up schools of Buddhist studies in India as well as in other Countries. To cater for religious tourism concerning Buddhists, Bodh Gaya in Bihar has been given an International Air-port. India where Buddhism went on a decline after the 13th Century AD has seen recent resurgence with large number of Dalits embracing the religion and the Buddhist tenets. Since Buddhism stands for peace and friendship for all, an ascetic living with minimum wants and an abhorrence of violence in any form, it has a very wide appeal to the younger generations in all countries, particularly to those who seek refuge from violence and want to live in peace and harmony. Nalanda's proximity to BodhGaya, Kapilvastu, and Sarnath and the excavations of the old University sites and other

Buddhist ruins makes it a place of tourist interest not only for Buddhist pilgrims but also for those interested in ancient Indian education, philosophy and culture.

3.2.3 Bihar's heritage of leadership in thought and action

Bihar showed the light to the people of the time through Lord Buddha, Lord Mahavira, and Guru Govind Singh. That Bihar was the cradle of three major religions (Buddhism, Jainism and Sikhism), that ancient Bihar's golden history was the history of entire ancient India, that Nalanda University was the best institution of its time all over the world, that Vaishali was the first republic of Lichchvis in the world, that Gandhi's freedom struggle actually started from North Bihar's Champaran Satyagraha for the cause of the indigo planters, that Dr. Rajendra Prasad was the first President of the Indian republic, seems to be a forgotten reality in present times.

Bihar has had a rich tradition for scholarship. The ancient kingdom of Magadh was renowned for art and culture and was the home for the talented. Lord Buddha, Lord Mahavira were the great philosophers and thinkers of their time, and Patliputra was the seat of intellectual creation during the Mauryas and the Guptas. In recent times Bihar has given Rajendra Prasad and Jayprakash Narayana, two of the great Indian freedom fighters and social reformers to the country. Students from Bihar excel at all competitive examinations in view of their inherent talent and scholarship and have distinguished themselves in scientific and artistic professions both inside the country and abroad

3.2.4 Reviving the reputation of an ancient seat of learning combining traditional philosophical thoughts with modern scientific ethos

In a recent address to the joint session of the Bihar Legislature delivered on the 28th March 2006, the President of India Dr. A.P.J. Abdul Kalam advocated the setting up an international University at Nalanda reviving the glory of the ancient seat of learning and combining traditional Buddhist philosophical thought with modern scientific ethos. An extract from his address is given below:



“The place where Bihar is located today had been the location for creating much of the great Civilization heritage of India earlier than 500 BC. It was the seat of great learning, scholarship, philosophy and statecraft. Bodhgaya and Nalanda are very important spiritual centres. Buddhists from around the world and many Indians confluence in Bodhgaya to draw inspiration from the Great Teacher, Buddha. Remains in Nalanda still remind us of the great glory of universal scholarship that Nalanda witnessed for many centuries. Science, arts, literature, philosophy and linguistics flourished there in addition to several achievements of Buddhist studies. Nalanda study center attracted scholars from 93 countries. That is how Chinese traveler Hiuen Tsang during 630-645 AD visited India and saw the glory of Nalanda University teaching at that time and stayed there for doing research in theology, philosophy and religion. The traveler was first a student and later became a teacher. His 12 years of traveling in India has been highlighted in the book form giving the political, social and educational system of the country at that time to recapture the past glory in the modern context, in keeping with Buddha's teaching for seeking knowledge in a holistic way by understanding the interconnectedness of things in life and the Universe, it has been proposed to establish a Bodhgaya Nalanda Indo-Asian Institute of Learning in partnership with select Asian countries. When I was on State visit to the Asian countries recently, the keen interest of Singapore to partner with India emerged. We have followed it up with a proposal. The Institute, which will have the status of University, will be shaped to be unique in the world. In addition to teaching and research in traditional areas of sciences, engineering, medicine, technology, humanities, social sciences, linguistics, management studies, a strong component of Buddhist studies will be introduced not merely as a separate department but also a part of the work for all faculties. In addition, a number of multi-disciplinary studies on conflict resolution, peace, sustainability and eco-systems will also be a part of this Institute's agenda. The Institute is proposed to be located in about 200 acres of land with modern facilities to service Indian, Asian and other foreign scholars. In due course, facilities for landing smaller aircraft would also be added. The initial tentative estimates for the facilities would be about Rs. 500 Crore. It is proposed to make a beginning by India and Singapore with Government support but managed totally independently by a group of professionals from India and Singapore and with a provision to add other countries like Republic of Korea, Sri Lanka,

Myanmar, Thailand and others when their partnerships are firmed up. This university can be a place for meeting of minds from the national and international arena to do research on unity of minds with focus on philosophy linking science, technologies, economy and spirituality with reference to ancient and modern thinking. The focus of this university can be the evolution of world, free from crime, terrorism and war. Above all this institute will engage in research in the role of human values and ethics for universal development and peace. This university should work for creation of enlightened citizens. Enlightened citizenship has three components which are: (1) Value Based Education, (2) Religion transforming into spirituality & (3) Economic development for societal equality. It is a great opportunity for Bihar to house a major Universal Institute of Learning that can be a beacon of light for the modern world. I look forward to scholars from all countries of the world coming here to create knowledge, share knowledge and make Earth, a conflict free peaceful place”

3.2.5 Justification for Resurrection of past glory in the modern context

While President Kalam’s guidelines for the new University mentioned above are in themselves sufficient justification for resurrecting the glory of Nalanda, interest shown by foreign dignitaries visiting India from states having sizeable Buddhist population have added impetus to the Bihar Government’s initiative in creating a Centre of Learning near the ancient University site which would attract students and scholars from all over the world and in time become a center of excellence in integrating knowledge of modern science and technology with philosophical thoughts and human and spiritual values. This integration would focus on bringing better understanding of different religions and cultures, better utilization of science and technology for economic development, eradication of illiteracy and poverty, and for the creation of new knowledge and technologies for the welfare of all mankind.

A thriving high quality institution using the best international practices in teaching/learning and in knowledge creation/dissemination located in the heart of Bihar would also have profound impact on the rest of the Higher Education Institutions in the

state. Interaction with scholars of the new University would assist in improving the quality of other state Universities and introducing needed reforms in curricula development, performance evaluation systems, and teaching/learning practices.

Bihar is already a preferred destination for Buddhist pilgrims and for all who have interest in Buddhist philosophy. Installation of a new international center of excellence will increase the flow of tourists to the region, both domestic and international and thus assist in the economic development of the state.

CONCEPTUALIZATION OF THE PLAN FOR RESURRECTION

4.1 ATTRIBUTES OF AN INTERNATIONAL UNIVERSITY OF EXCELLENCE

A university can be termed international only if it is able to attract students, faculty and research staff from different parts of the world, has global perspective on educational

Chapter 4: Conceptualization of the Plan for Resurrection

and recruited teachers, provide learning infrastructure, modern and up-to-date curricula, excellent teaching learning methodologies, curative, innovative and socially beneficial research outputs, a participative and supportive governance system, active interaction and engagement with community and industry, and an emphasis on diverse that subjects like discussion, creative thinking and innovation.

4.2 IMPERATIVES FOR ACHIEVING THE DREAM OF ESTABLISHING A WORLD CLASS INSTITUTION

4.2.1 International Status

Attracting students, faculty and research workers from different countries would need creating an image of the new institution and building up its reputation through creating excellent academic infrastructure, research and innovation, academic excellence, providing facilities in terms of scholarship, teaching research, extracurricular and sports facilities and subsidized campus living. Both the Central and State Governments can play an important role in projecting the potential high quality of the new institution.

Chapter 4

CONCEPTUALIZATION OF THE PLAN FOR RESURRECTION

4.1 ATTRIBUTES OF AN INTERNATIONAL UNIVERSITY OF EXCELLENCE

A university can be termed International only if it is able to attract students, faculty and research staff from different parts of the world, has global perspective on educational issues, is able to offer programs of education in fields of interest to an international audience and is involved in the creation and dissemination of new knowledge, techniques and technologies having permanent value and potential for world-wide application.

An Institution of Excellence has to ensure high quality of student input, highly qualified and committed teachers, adequate learning infrastructure, modern and up-to-date curricula, excellent teaching learning methodologies, creative, innovative and socially beneficial research outputs, a participative and supportive governance system, active interaction and engagement with community and society, and an academic ambience that supports free discussion, creative thinking and innovation.

4.2 IMPERATIVES FOR ACHIEVING THE DREAM OF ESTABLISHING A WORLD CLASS INSTITUTION

4.2.1 International Status

Attracting students, faculty and research workers from different countries would need projecting an image of the new Institution and building up its reputation through creating excellent academic infrastructure, locating and inviting top academics for faculty positions both from India and abroad, and providing incentives in terms of scholarships, teaching/research assistantships, and comfortable and subsidized campus living. Both the Central and State Governments can play an important role in projecting the potential high quality of the new Institution.

4.2.2 Fostering Excellence

- (a) Student Input Quality: The old Nalanda University used a highly intensive interview method at the gates of the University to permit entrance to only those who were committed and capable. The new University must also ensure through its self-evolved quality standard criteria that student input quality remains high. An entrance test and interview may have to be introduced for some programs.
- (b) Faculty selection, development, and accountability: Initial recruitment of faculty will have to be by invitation, and subsequently through selection on merit. A proper faculty development scheme has to be in place right from the start of the University to allow vertical professional growth and awareness of current international best practices in teaching /learning. Peer interaction through participation in national/international conferences/seminars/workshops would need active support and encouragement. A Teacher performance appraisal system would have to be in place to recognize and reward performance much beyond normal, and to counsel those performing below the norms.
- (c) Learning Infrastructure: The University would have to provide excellent world-class infrastructure in terms of well-equipped modern lecture theatres; tutorial, discussion and project rooms in adequate numbers; teaching/project and research laboratories with state-of-art equipment and facilities; teaching, support and maintenance workshops with adequately trained staff, library with appropriate selection of books, monographs and journals and access to large relevant academic digital databanks. Student academic support services in terms of a bookshop, a stationery shop, photocopying services and a cyber café may also have to be established. In addition campus facilities for student and faculty residences, shopping and basic supplies, indoor and outdoor sports facilities, fitness gymnasium and swimming pool and adequate medical facilities may have to be provided to enable students and faculty to enjoy campus living without hassles so that they can concentrate fully in their creative academic activities.
- (d) Course Curricula: Students get attracted to programs only if the curriculum is challenging and the course contents are modern and up-to-date. The New

University would have to have a philosophy for curricula formulation, curricula implementation, monitoring, renewal and development from the beginning and adequate emphasis is to be given to incorporating changes suggested by stakeholders including students and alumni.

(e) Teaching/Learning Processes: The hallmark of an excellent institution is the quality of the teaching/learning process. Highly interactive lectures with encouragement to active learning, tutorial group activity to acquire problem solving skills, open-ended laboratory exercises to develop ability to solve a problem through experimentation and to discover new knowledge, challenging assignments to acquire new knowledge as well as self-learning skills, project activity and term papers to synthesize and apply knowledge and skills acquired in several courses are recognized components of a good teaching /learning process. In addition to the above, the new institutions will have to use where ever possible project-based learning (PBL), case studies, field visits, community interaction, and attachment of students to industry and employment agencies for first-hand knowledge of the professional environment. It would also give students repetitive exposure to acquire communication and presentation skills, information search and self-learning skills, group working skills, entrepreneurial ability and leadership qualities.

(f) Research output: An Institution gets international recognition through the achievements of its graduates and through the quality of its research output. Research training and research output would have to be the main focus of the new University with encouragement to creating new knowledge through individual or group effort, seeking research funds from national/international agencies for the solution of identified problems, offering consultancy/expertise to industry and, assisting national government and international agencies on policy formulation in areas of felt need. The new University would have to establish a Research and Consultancy Division to develop University guidelines and incentives for promoting research and consultancy services, to keep track of research and consultancy projects, faculty publications, intellectual property issues and collaboration with other R&D organizations.

(g) Governance System: Within the constraints of the existing national models of academic governance, the new University would have to develop norms of participative and supportive management, decentralized administration with specified levels of autonomous working with accountability, a fast-responding conflict management system, an instant messaging service for quick information dissemination, model service-rules, The students, faculty and staff must feel that the governance system is not for control of their activities but for constant support and assistance in their efforts for achieving high quality outputs. While management would have to acquire adequate resources/funds from government/industry/ international agencies for managing all academic activities, resource allocation to various components would need to be done through participative discussion with all concerned. Fair and transparent policies for student admission, faculty selection and promotion, and a reward/recognition mechanism for high level performance would have to be evolved to allay fears of partisanship and favouritism.

(h) Community Interaction: The Kellogg Commission on Public Universities in the United States (1999) had advocated "Engagement" with the community as the most important function of a public University apart from Learning (teaching) and Discovery (research). One relevant paragraph of the report is quoted below:

"Engagement. One of this Commission's earlier reports spoke of the need to move beyond outreach and public service to a new conception of "engagement" with the community (however defined), new ways of moving the university's expertise and resources off campus and, at the same time, receiving input and expertise from the community (however defined) in ways that served both institutional and community needs. We commit our institutions to putting in place the seven-part test of engagement (based on concepts developed at the University of California, Davis) incorporated into that document.

Are we responsive and listening to our communities? Do we demonstrate our respect for our partners by engaging them in a joint activity to define problems and think about solutions? Can we maintain our academic neutrality so as to act as an honest broker and facilitator in areas that are socially, economically, or

politically contentious? How much effort have we put into making sure that our complex and confusing institutions are accessible to outsiders? Can we find new ways of integrating our scholarship and learning missions with the engagement process? Are our engagement efforts well enough coordinated that the left hand knows what the right is doing? Finally, have we developed sufficient resources to become fully engaged institution?" (Kellogg Commission on Future of State and Land Grant Universities-Sixth Report-Renewing the covenant, page 25).

Interaction and engagement with the community and society is important for all good institutions. The New University would have to define its relationship with the community and society with which it is connected, and as it is going to be international in character, the community and society frontiers would transcend national boundaries. Since the old Nalanda University was supported by 100 outlying villages, the new University would develop special line of action with them to solve the day-to-day problems. Details of community interaction with the University / Departments and 200 villages surrounding the University is illustrated conceptually in Annexure II.

- (i) Academic Ambience: Creativity and innovation thrive in an atmosphere of free academic debate and discussions, in freedom to experiment with new ideas, in having unlimited and instant access to information and knowledge created anywhere in the world, in co-operative working with students and peers, in providing frequent interaction with peers through national/international conferences/seminars/workshops, and in encouragement to developing a questioning attitude, creating new knowledge and a will to excel. The New University will have to create such an ambience through providing a campus wide electronic network with large bandwidth internet connectivity, organizing frequent conferences/workshop on current research topics, providing access to laboratories and library beyond working hours and through networking with peers in other Institutions/Universities engaged in similar research activities.

4.3 THE BASIC CONTOURS OF THE NEW UNIVERSITY

Based on the discussion on imperatives given in the previous section, the basic contours of the New University can now be outlined.

4.3.1 Vision, Mission, and Objectives

(a) Vision

To establish an international center of excellence in higher learning, which would integrate modern, scientific and technological knowledge and skills with basic human values, would promote universal friendship, peace and prosperity through spiritual awakening of the individual and the society, and would endow itself with the same prestige and glory that the ancient Nalanda University enjoyed.

(b) Mission

To educate and train students to tackle the emerging challenges of the globalized technological society, to provide leadership in thought and action, and to develop entrepreneurial abilities for creation of wealth and prosperity for their own country and peace and happiness for all mankind.

(c) Objectives

The objectives of the proposed Nalanda University is to

- Attract students and faculty from India and other countries and to develop cooperative and harmonious group working culture in the context of diversity in individual upbringing
- Offer programs of post-graduate studies and research in arts, sciences, engineering, medicine, law, education and management incorporating value education and spiritual ethos in all programs

- Promote interdisciplinary education and research
- Create and foster an academic ambience of learning and scholarship,
- Provide state-of-art facilities in learning spaces: lecture rooms, tutorials, laboratories and workshops, project and research laboratories.
- Provide students with knowledge, skills, and attitudes specific to their chosen profession so as to enable them to assume leadership roles in their professional life.
- Offer students a cafeteria of course electives to choose from to suit their career ambitions
- Develop a faculty development scheme to enable vertical academic and professional growth of young faculty and to ensure peer interaction through their active participation in national and international conferences in their field of research interest.
- Promote universal human values of friendship, tolerance and respect for other's point of view,
- Develop participative governance and conflict management strategies,
- Develop a fair and transparent system for student admission, faculty and staff selection and faculty/staff promotion
- Foster creativity and innovation through recognition and reward for high performers and high achievers
- Provide a campus wide large bandwidth internet connectivity
- Train all students in self-learning skills, communication and presentation skills, problem solving skills and entrepreneurial abilities
- Establish linkages with other national and international institutions having similar objectives
- Establish business incubation centers, science and technology parks and industrial consultancy centers
- Establish a center of research on problems of higher education

4.4 THE UNIQUE SPECIFIC PROPERTY OF THE NEW UNIVERSITY

- It would have an international outlook with students and faculty from different countries, all residing in the campus and an academic advisory committee with experts both from India and abroad which would guide the academic contents, direction and focus of the University's programs of teaching, research and engagement with the community and society.
- It would offer only post-graduate and research degrees, eligibility for admission would be a graduate degree for normal 2-year post-graduate programs, a graduate/post-graduate degree for research programs and a senior secondary school certificate (Class XII pass) or equivalent for the integrated 5-year Master's programs.
- Admission would be strictly on merit subject to any national policies regarding reservation; some courses may require qualifying in an entrance test
- All curricula would have international acceptability and quality assurance marking through national/international accreditation.
- The programs of study and research would be organized through constituent but autonomous schools of studies having departments of supporting interest and relevance
- The governance would be supportive and participative and would recognize and reward excellence in teaching, research, consultancy, and innovation
- Students would have enormous flexibility of choice in selecting courses from their own school or from another school to suit their career aspirations.
- Students would be encouraged to take part in national/international competitions like science Olympiads, design competitions etc.
- The University would offer regular continuing education programs and state-of-art lectures from experts in various fields including philosophy, contemporary religions and spirituality, current affairs and advances in science and technology to ensure regular up gradation of knowledge and current awareness of students and faculty.

- It would train students in soft skills (communication, presentation, group-working, debating and discussion etc.) to meet the requirements of modern industry and services.
- Students would have access to lecture notes and reference reading material stored on a local intranet and would get counseling from teachers through regular e-mail or intranet communication
- The University would adopt best international practices in teaching/learning methodologies (e.g. active learning, project based learning, group and peer learning etc) and in the evaluation of student performance (e.g. continuous evaluation, open-book and closed book tests, oral tests, assignments evaluation, term papers and projects etc.) and teacher effectiveness (e.g. student assessment, peer assessment, and external assessment etc.)
- The curricula would employ semester scheme with credit system, allowance will be made for previous learning and students would be permitted to take courses in other institutions in India or abroad with full credit transfer arrangements
- The University would develop network relationship with Institutions in India and abroad for exchange of students and teachers and for utilization of physical facilities.

Chapter 5

UNIVERSITY GOVERNANCE SYSTEM

Indian higher education has strong roots, which dates back to 5th Century with the existence of traditional and scholarly learning universities such as Nalanda, Takshila. Of the learning centers, Nalanda is the first in the world to house students in the campus playing seminal role in furthering Buddhist learning. Indian higher education comprises of several models of governance with respect to scope of higher learning, activities of institutions and purpose for which they are set up to produce the needed manpower to meet the national and or international commitment. University or university type institutions have several types of organizational and management structures. In India, most universities are multi-faculty institutes. There are universities, which are subject/ subject area oriented like agriculture, health and technical for engineering etc., besides being language based such as Sanskrit, Tamil, Telugu, Urdu and Hindi Universities.

These institutions can be grouped as follows:

- (a) Central Universities such as Delhi University, JNU, JNTU established through acts of parliament,
- (b) State Universities such as Indraprastha University, Pune University, Patna University established through Acts of State Legislatures of the state where they are located,
- (c) Institutions of National Importance such as IITs, IIMs, IIIT Allahabad, IIIT&M, Gwalior, AIIMS established through Acts of Parliament or as GOI Society, and
- (d) Institutions of Higher Education that are established as registered societies and affiliated to a recognized university, such as BITS, Pilani and the National Institutes of Technology and subsequently granted the status of a Deemed University under UGC Act,
- (e) Private Universities such as Sikkim-Manipal University and the Jaypee University of Science and Technology, established through Acts of State legislature of the respective states where they are located.

Universities are functionally divided into two categories; namely, Teaching-cum-Affiliating Universities and Affiliating Universities. Besides these, there are Institutions that are Deemed to be Universities and Open Universities for Distance Learning etc. It may be mentioned that Central Universities are established by Acts of Parliament and likewise State Universities are established through Acts of the State Legislatures.

The Indian Institutes of Technology have been established as national institutions of importance by an Act of Parliament and are empowered by statutes to award degrees whereas the Indian Institutes of Management (IIMs) are registered societies and do not have the authority to award degrees. However, these programmes are accorded equivalence to degrees by the Association of Indian Universities.

There is a growing need for increasing societal and equal participation of the key/ relevant stakeholders in the establishment of higher and professional educational institutions especially in the emerging areas of learning. The need is also for inter disciplinary and interdependent learning cutting across disciplines especially in higher education for developing skills, knowledge and experience. In fact the need of the hour is for the governments to take a proactive role in mobilizing private sector initiatives in this direction. This can only happen if the organizational structure of higher educational institutions is innovative and such institutions demonstrate a leadership role.

The new Nalanda University is being proposed as a University of International eminence by the state Government with the support of variety of stakeholders including the Government of India, East Asian countries and stakeholder countries who have interest in the concept, vision, mission and philosophy of the university academic matters. It is expected that the Nalanda University will have its right to enable grant degrees and other academic distinctions and titles to the desirous students who pass through the academic regulations of the university/ schools laid thereof. It is also envisaged that Nalanda University will enjoy the patronage of the state government in terms of policy support mechanism and the government of India for all the needed support and backing in implementation to emerge as in international eminence. In view of the proposed mode of establishment, the proposed Nalanda University may be incorporated as a

University of International Eminence, in spite of being set up under a state legislative act, with several statutes/ clauses and conditions suiting the needs and requirement, which may be quiet innovative from the prevailing university/ institutions in India.

Governance and Philosophy

The Governance of University is a systematic process by which the physical and human resource planning and management strategies of education institutions are directed towards enhancing values in the pursuit of academics. The guiding principles of academic pursuit leads to creation and adherence to a culture of conscience and consciousness, integrity, accountability, probity and openness within an acceptable legal and ethical framework.

The basic values of academic pursuits can be grouped into the following overlapping schools of learning's/ departments/ centers:

- (i) Intellectual excellence
- (ii) Pursuit of knowledge
- (iii) Integrated personality development
- (iv) Social interaction with the user system and stakeholders with the larger social system.

In consonance with the vision, mission, objectives (see Chapter 4) and the philosophy of governance of the university system, the core principles by which the university shall always function and implement its academic pursuits and knowledge shall be the following:

- (i) Value orientation with respect to the traditional knowledge
- (ii) Trusteeship
- (iii) Transparency
- (iv) Empowerment
- (v) Accountability & control
- (vi) Ethical accountability

BROAD OBJECTIVES OF NALANDA INTERNATIONAL UNIVERSITY

Emanating from the objectives and vision, the following broad academic activities are proposed:-

- Long term education programs.
- Scholarly learning and Professional development programs.
- Distance and off campus learning programs.
- Consultancy and Research programmes.
- Networking with national and international institutions of learning falling in line with the objectives, vision, and mission of the university.

The basic focus of the University would be to:

- (i) Recapture in the modern context the holistic traditions of knowledge creation, acquisition and dissemination as practiced in Nalanda several centuries ago and the universal outlook with which scholars from many countries interacted there,
- (ii) Work towards building an inclusive society in a world free of war, terror, violence and fear,
- (iii) Create a unique partnership between the scholars and interested persons from Asian countries and countries having interest in the objectives of university academic matters,
- (iv) Understand Buddha's teachings in the contemporary context without excluding any other thoughts and practices from any other parts of the world,
- (v) Disseminate and advance knowledge, wisdom and understanding by teaching and research and by examples and influences of its corporate life and in particular the other objects set out in the preamble,
- (vi) Enhance research for greater interaction between Asian countries, particularly between South Asia and East Asia, bound by strong historical commonalities in areas like science, mathematics, astronomy, philosophy and cross cultural current

issues and trends in science, technology and modern engineering including the emerging disciplines with integrated approach of learning in the areas of interest.

The activities of Nalanda University are schematically depicted in Fig. 5.1 and 5.2. For translating the above concepts into an organizational framework, there is a need to provide total flexibility in the management structure and the operational strategies of the University. To achieve this objective, the university structure needs to be innovative in nature as illustrated in Fig. 5.3 which in many ways is thin and sharp in its functioning. The university is proposed to function with innovative areas of study centers such as Schools of Learning. Deans/ Director (s) will head the schools of learning. The typical academic structure of a School is illustrated in Fig. 5.4.

The university will function under various authorities headed with the officers said for the purpose. The various authorities of the university are illustrated in Fig. 5.5. Likewise the management hierarchy and structure needs to be also thin and straight. Fig. 5.6 depicts the proposed management structure of the University. The specific role and functions of various authorities of the University are already presented in the Draft University Bill prepared by the State Government of Bihar.

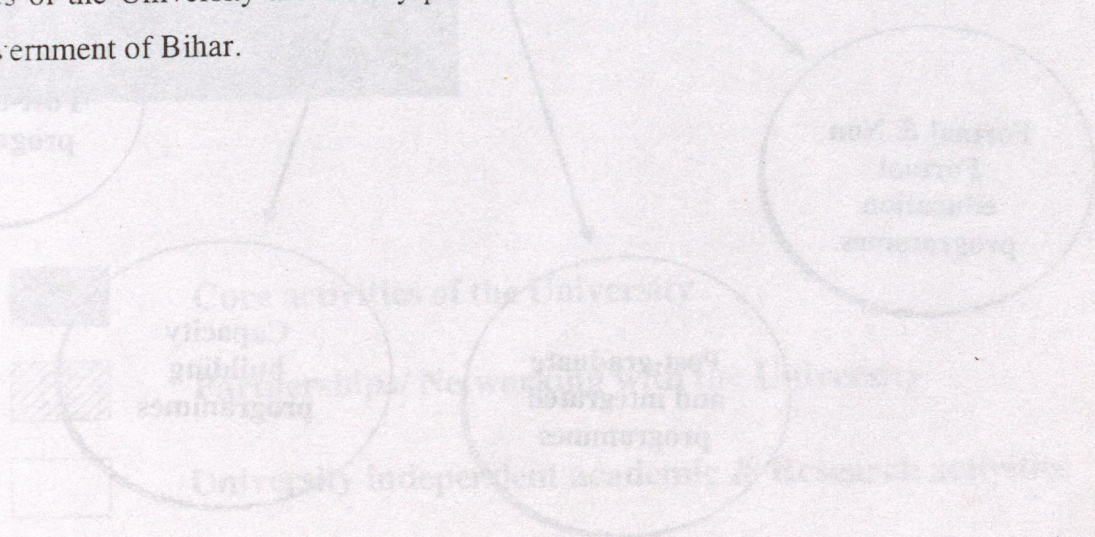


Fig. 5.2 University and Stakeholder Interactions

Fig. 5.1 Nalanda International University Activities

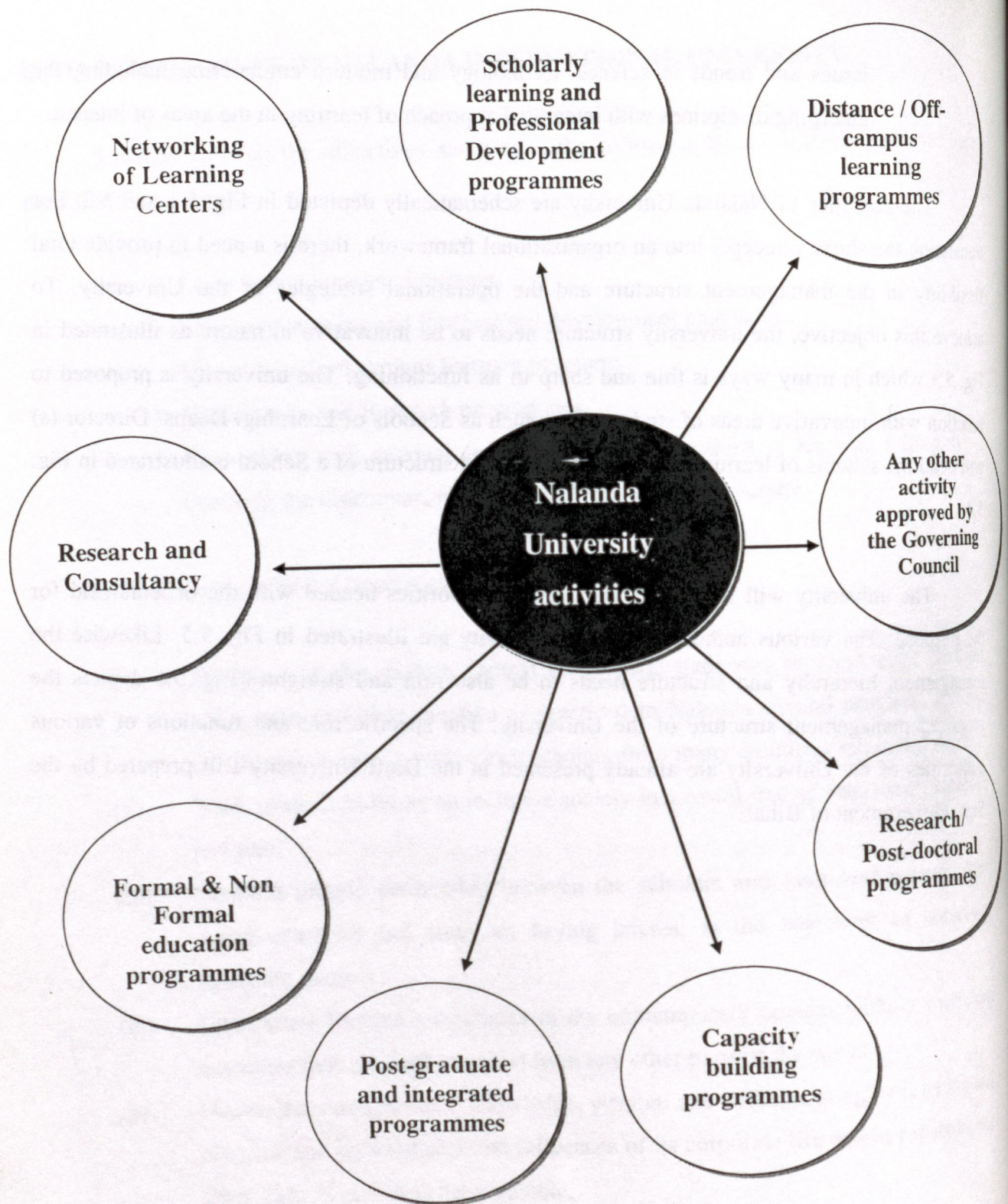
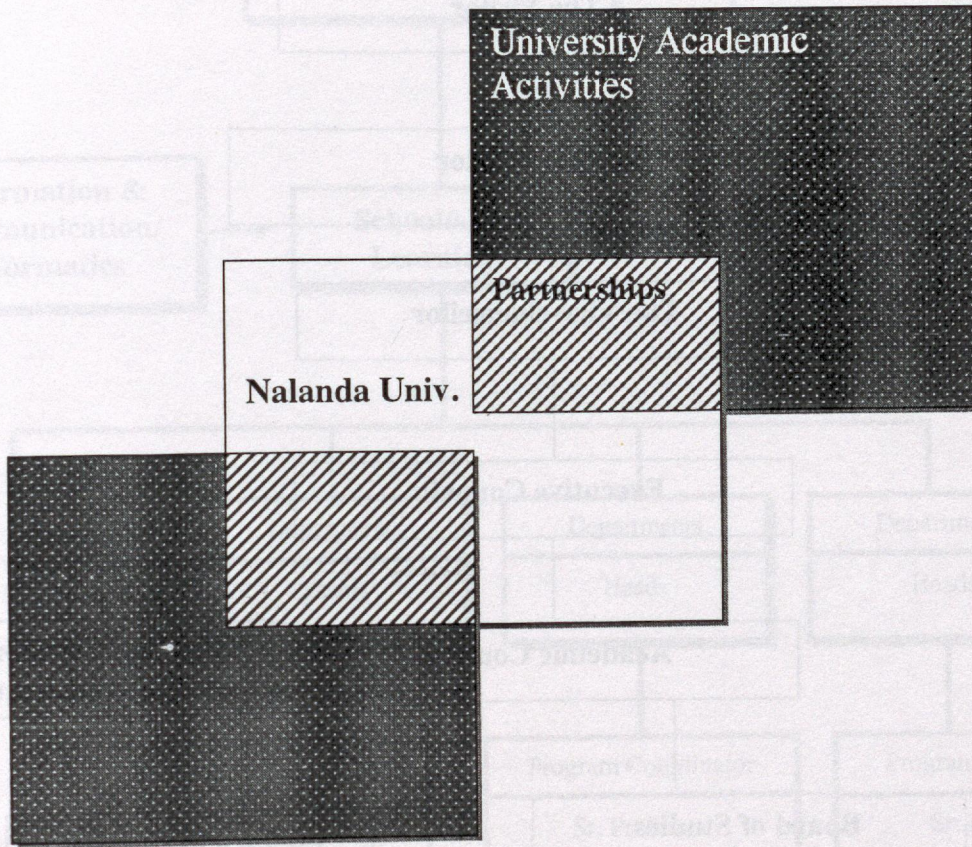


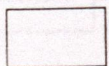
Fig. 5.1 Nalanda International University activities



Core activities of the University



Partnerships/ Networking with the University



University independent academic & Research activities

Fig. 5.2 University and Stakeholder Interactions

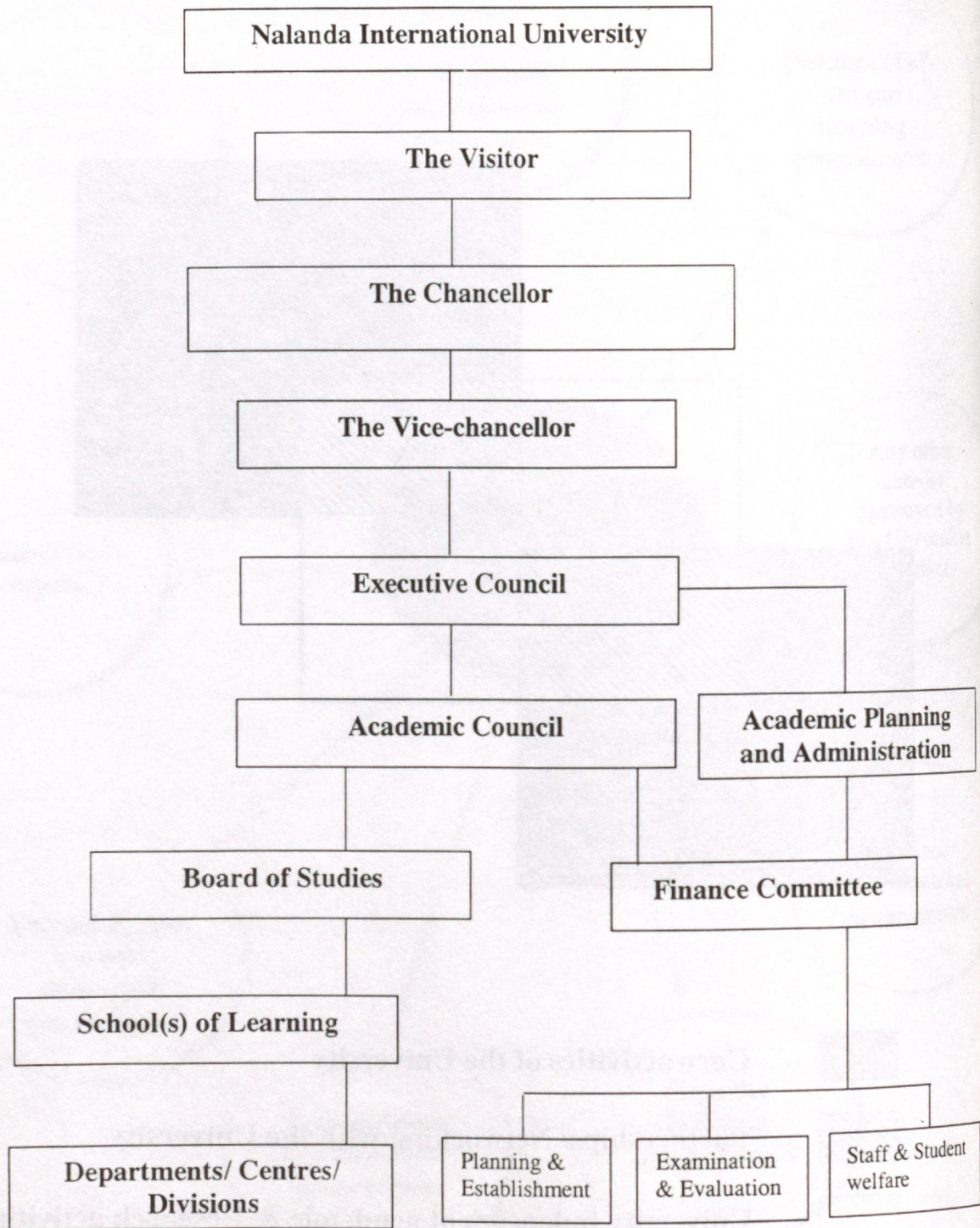


Fig. 5.3 University Structure

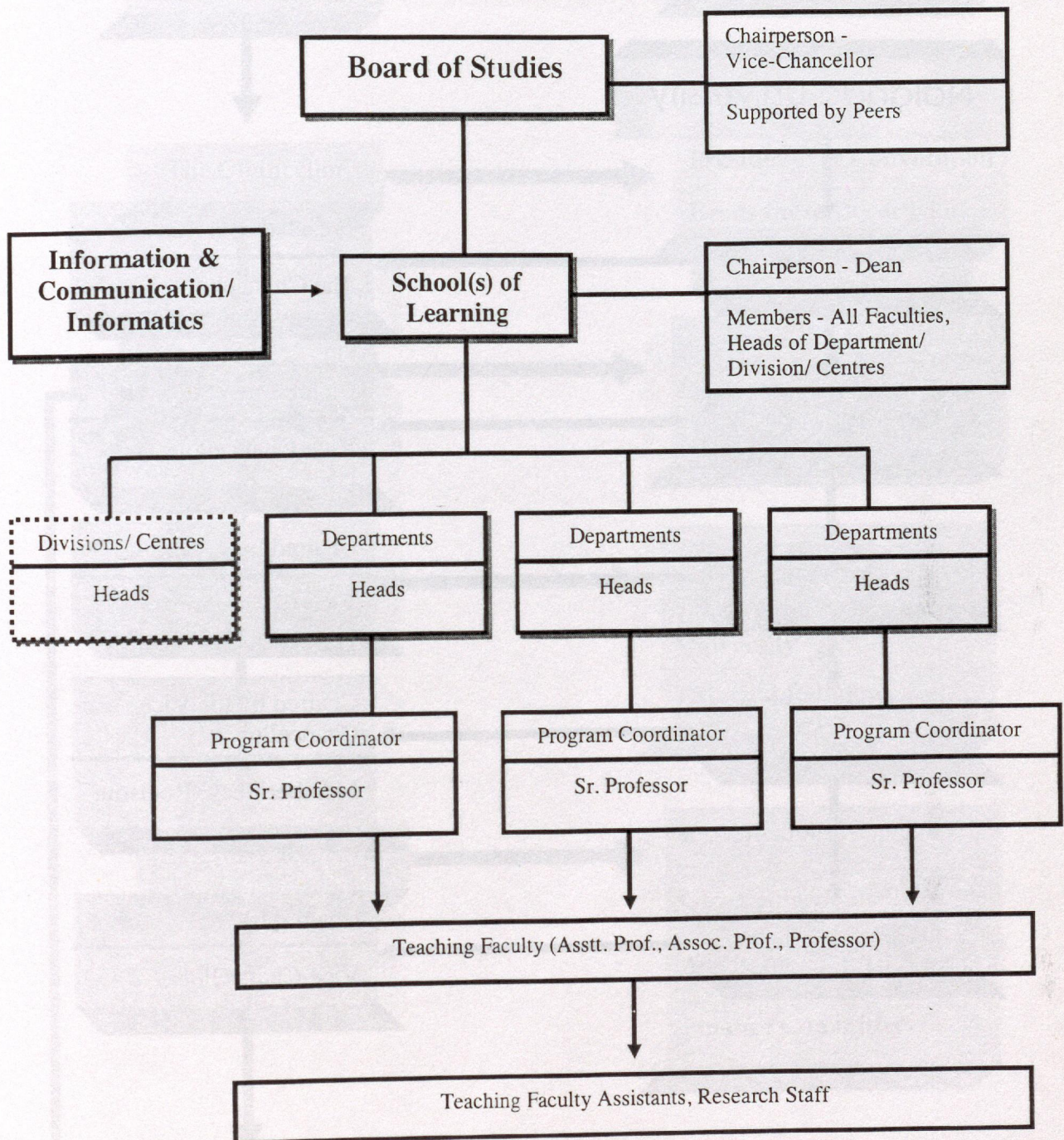


Fig. 5.4 Typical Structure of a School of Learning

Fig. 5.6 Management Structure

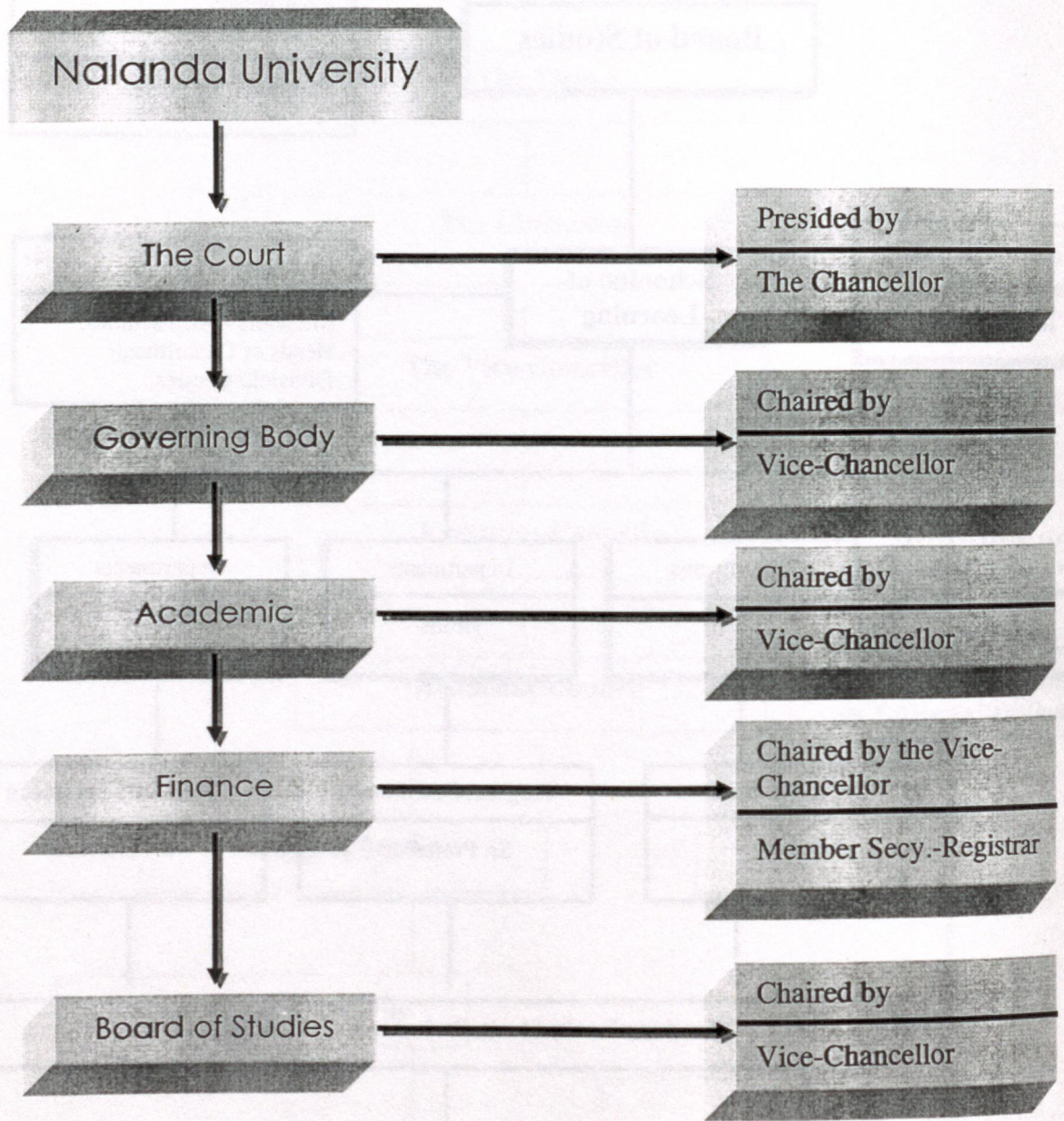


Fig. 5.5 Authorities of Nalanda University

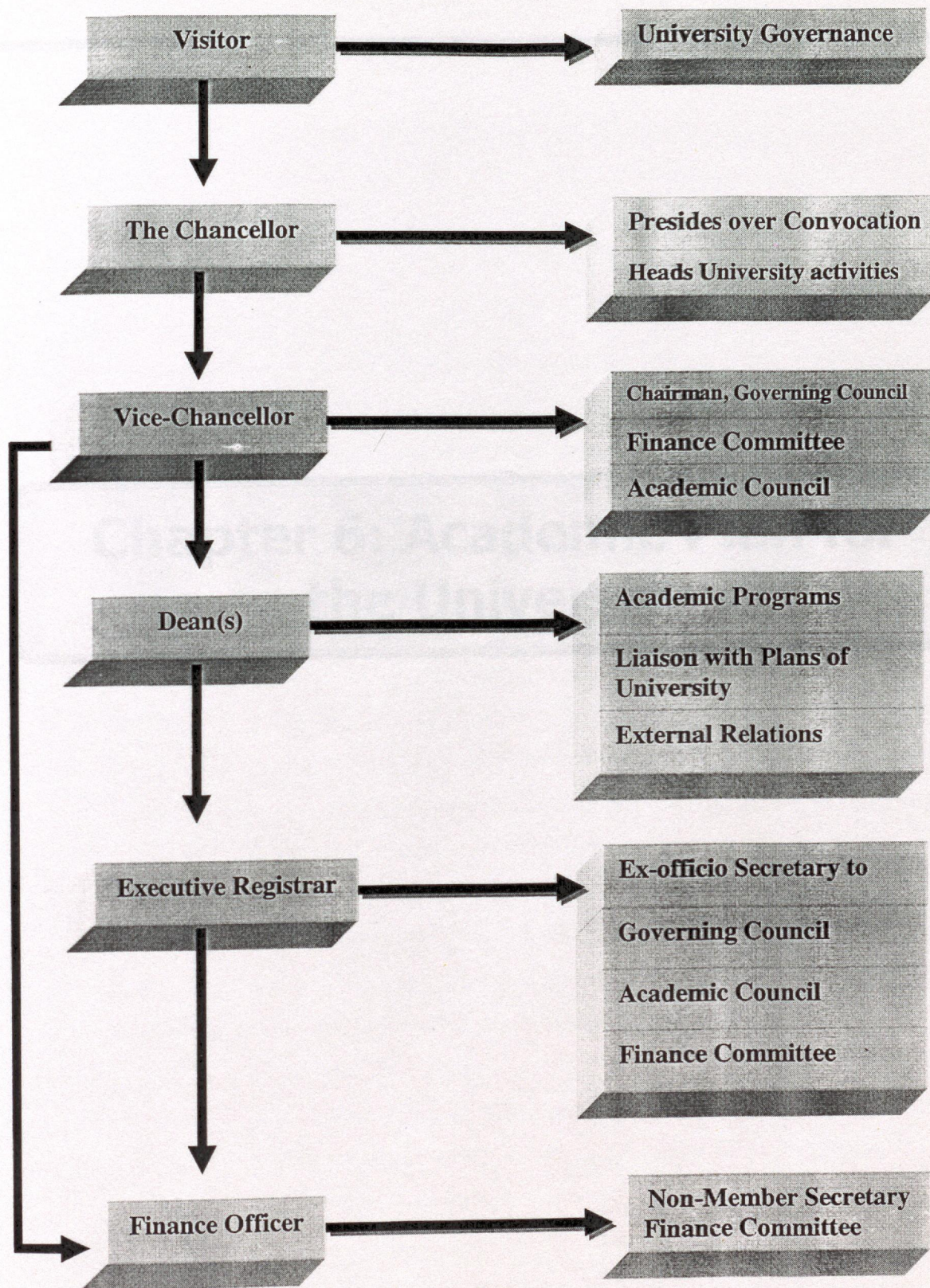


Fig. 5.6 Management Structure

ACADEMIC PLAN FOR THE UNIVERSITY

AN OVERVIEW

Academic activities at the University shall encompass the full range of subjects of learning associated with vibrant academic institutions. There shall be Research Centers, Schools of Learning in different disciplines that offer degree and non-degree programs including a School for Continuing Education and International Learning Centre.

Chapter 6: Academic Plan for the University

Professional programs with the aim of equipping students with the necessary skills and continuous learning programs. Integrated 3+1-year degree programs could be offered in select disciplines with an exit at the 3-year Bachelor's level. The university will offer various unique development opportunities such as the Faculty-level exit that will offer undergraduate programmes, for example, the School of Languages shall offer Bachelor's programmes in Persian, Chinese, Korean, Japanese etc. These Schools will offer respective credit courses to students of all other Schools and also grant credit and on-demand courses from time to time. The university at the beginning is proposed to establish the following Schools:

School for Philosophy and Buddhist Studies: This school will offer courses and programming in the various areas of religion with the focus of Buddhism, Hinduism and Culture, Theology, Sociology and Social Anthropology and Social Welfare studies, Interfaith Studies, etc. The school is the initial phase of establishment will offer the following programmes of studies: the specialized degree along with Indian studies and also the school will have School of Studies such as Tantric Philosophy and Thought, in fact, the school shall also

Chapter 6

ACADEMIC PLAN FOR THE UNIVERSITY

6.1 AN OVERVIEW

Academic activities at the University shall encompass the full range of schools of learning associated with vibrant academic institutions. There shall be Research Centers, Schools of Learning in different disciplines that offer degree and non-degree programs including a School for Continuing Studies and International Learning Centre.

6.2 SCHOOLS OF LEARNING

Schools Learning shall be set up to offer postgraduate (PG) degree, research/ doctoral and post-doctoral programs with the aim support in core subjects, allied and integrated areas of studies and continual learning programs. Integrated five -year Master's programs would be offered in most disciplines with no exit at the 3-year Bachelor's level except (The university will offer) where unique employment opportunity exists at the Bachelor's level (and there is need will offer undergraduate programmes), for example, the school of Languages shall offer Bachelor's programmes in Persian, Chinese, Korean, Japanese etc. These Schools will offer supportive credit courses to students of all other Schools and also non-credit and on-demand courses from time to time. The university at the beginning is proposed to establish the following Schools:

- (i) *School for Philosophy and Buddhist Studies:* This school will offer courses and programmes in the various areas of religion with the focus on Buddhism, History and Culture, Theology, Sociology and Social Anthropology, and Social Welfare Ethics Interfaith Studies, Folklore etc. The school in the initial phases of establishment will offer the following programmes of studies (in 3 specialized areas) along with student intake in year. This school will have Centre of Studies such as Gandhian Philosophy and thought. In future the school shall also

comprise of several such Centes of Studies in the areas of significance with the growth & development of the University.

Table 6.1: Year-wise Student Intake

School(s) of Learning	Program	Year-wise Student Intake				
		1	2	3	4	5
(a) Oriental Philosophy	PG Integrated	20	40	60	80	100
(b) Western Philosophy	PG Integrated	20	40	60	80	100
(c) Buddhist and Contemporary Religion	PG Integrated	20	40	60	80	100
	MA 2 Year	60	120	120	120	120
	PhD	5	10	15	20	25
Total		125	250	315	380	445

- (ii) *School of Information & Communication/ Informatics*: This school will offer post-graduate and research programmes in the areas of Information Technology, Communication and Informatics. This school shall have core subject areas and electives to the choice of students curing across disciplines.

Table 6.2: Year-wise Student Intake

School(s) of Learning	Program	Year-wise Student Intake				
		1	2	3	4	5
(a) Computer Science and Engg.	PG Integrated Program	60	120	180	240	300
(b) Electronics and Comm.	PG Integrated Program	60	120	180	240	300
(c) Information Tech.	PG Integrated Program	60	120	180	240	300
(d) Electrical Engg.	PG Integrated Program	60	120	180	240	300
	MTech 2 Year Duration	80	160	160	160	160
	Ph.D	20	25	30	35	40
Total Student Intake		340	665	910	1155	1400

The school in the initial phases of establishment will offer programme in 4 specialized areas listed above. The student intake for each of the specialized areas are also mentioned against each. The stand alone M.Tech programmes will have 20 student intake per year for each of the specialized areas. The details are illustrated in Schedule 1.2.1.

- (iii) *School of Basic and Applied Sciences:* The school will offer courses and programmes in various disciplines such as Physics, Chemistry, Biology, Mathematics, with the aim to serve the other Schools/ Department/ Centres. In addition to these, the school at the appropriate time may offer courses/ programmes in Space Sciences, Earth Sciences, Ocean Sciences, Ecology etc.

Table 6.3: Year-wise Student Intake

		Year-wise Student Intake				
		1	2	3	4	5
School of Basic and Applied Sciences Programs						
(a) Physics	PG Integrated	20	40	60	80	100
(b) Chemistry	PG Integrated	20	40	60	80	100
(c) Maths	PG Integrated	20	40	60	80	100
(d) Life Sciences(Bio Technology)	PG Integrated	60	120	180	240	300
	MSc 2 Year	80	160	160	160	160
	MTech 2 Year	20	40	40	40	60
	PhD	10	15	20	30	40
Students	Total	230	455	580	710	860

The school will offer specialized post graduate integrated programmes in basic sciences listed above. In addition to above the school shall offer M.Sc. and M.Tech stand alone programmes and doctoral level programmes.

- (iv) *School of Development Studies:* The School will offer courses and programmes in the areas of Economics, Business Economics, Sustainability in Economics, Welfare Economics and Ethics in Business and Management, Value Systems and related areas. The school shall also offer PG and research programmes in these identified areas.

Table 6.4: Year-wise Student Intake

School(s) of Learning	Program	1	2	3	4	5	6	7	8
(a) Development Economics	MA 2 Yr						20	40	40
(b) Social Works & Development	MA 2 Yr						20	40	40
(c) Management Studies	MBA 2 Yr	60	120	120	180	240	240	300	360
(d) Developmental Geography & Regional Studies	MA 2 Yr						20	40	40
	PhD			5	10	15	20	25	30
Total		60	120	125	190	255	320	445	510

The school in the initial phases of establishment will offer programmes in specialized listed above along with student intake indicated therein. This school will offer innovate areas of learning of PG level of 2 years duration above. However, MBA programmes in proposed in the initial phases itself.

- (v) *School of Natural Resource Management*: This School will offer PG programme/ research in the areas of integrated disciplines of Agriculture, Forestry, Food Technology such as Post-harvest Technology, Food Science & Technology/ Food Processing Technology, Organic Farming, and sustainable water management, Fisheries Technology, conservation of Biodiversity/ Issues in Agenda 21/ Rio Convention/ Kyoto Protocol etc. The school shall offer courses and programmes relating to natural disaster mitigation at the appropriate time. The school also offer elective/ sister courses which may be suiting to the needs of others Departments/ Centres with the aim to develop skills in the areas of need/ interest/ sector.

Table 6.5: Year-wise Student Intake

School(s) of Learning	Program	1	2	3	4	5	6	7	8	9	10
(a) Post Harvest Technology	MTech 5 Yr	40	80	120	160	240	240	240	240	240	240
(b) Agro Forestry	MTech 5 Yr	40	80	120	160	240	240	240	240	240	240
(c) Food Technology	MTech 5 Yr	40	80	120	160	240	240	240	240	240	240
(d) Biodiversity & Bio-agriculture	MTech 5 Yr	40	80	120	160	240	240	240	240	240	240
(e) Soil Conservation	MTech 5 Yr						40	80	120	160	240
(f) Water Resource Management	MTech 5 Yr						40	80	120	160	160
	MTech 2 Yr	80	160	160	160	160	160	160	160	160	160
	PhD	5	10	15	20	25	30	30	30	30	30
Total		246	492	658	824	1150	1236	1317	1398	1479	1640

- (vi) *School of International Studies*: The school shall offer courses and programmes in learning in the areas of Security and Peace Keeping, Conflict Resolution and Management, International Politics etc. The school shall also offer research and

post doctoral courses to the desirous students in these areas of interest with focus to local, national and international issues in the areas of interest.

Table 6.6: Year-wise Student Intake

School(s) of Learning	Program	1	2	3	4	5	6
(a) International Relations & Diplomacy	PG Integrated Program	40	80	120	160	200	200
(b) International Trade & Agreements	PG Integrated Program	40	80	120	160	200	200
	MA 2 Year Duration	40	80	80	80	120	160
	PhD	5	10	15	20	25	30
Total		125	250	335	420	545	590

The school of will offer 2 specialized programmes in recent developmental areas in along with standalone MA programmes of 2 years duration. The student intake for each of the programmes are also illustrated therein.

- (vii) *School of Languages*: The school shall develop courses and programmes in multi-lateral languages of study with relevance to the international languages from Asian, East Asia and South East Asian countries. The school will also offer graduate level course for students who may like to pursue languages and further studies in their subject of interest.

Table 6.7: Year-wise Student Intake

Department	School(s) of Learning	Program	Year(s) – Student Intake				
			6	7	8	9	10
Department of oriental languages	(a) Chinese	MA 5 Yr	10	20	30	40	50
	(b) Japanese	MA 5 Yr	10	20	30	40	50
	(c) Tibetan	MA 5 Yr	10	20	30	40	50
Department of Foreign languages	(d) German	MA 5 Yr	10	20	30	40	50
	(e) Korean	MA 5 Yr	10	20	30	40	50
	(e) French	MA 5 Yr	10	20	30	40	50
	Diploma	1 Yr	80	160	160	160	160
		Ph.D.	5	10	15	20	25
Total			145	290	355	420	485

The school shall have 2 key Departments of Oriental Languages and foreign languages and offer 5 years integrated courses in the areas of languages. However, the school shall be established in the 2nd phases of establishment of the University.

In addition to the above schools of learning, the University shall at appropriate time and development scenario set up Schools, Centres and Departments in the areas of Educational Technology and other key developmental sector related areas.

6.3 ACADEMIC STRUCTURE

The academic structure and framework of the university is to be based on semester wise for the all-regular programmes such as UG, PG, and Research. However, the research and post-doctoral programmes may have their flexibility in teaching learning with the total duration and time spent for research, analysis and related academic work shall not be less than the minimum prescribed duration/ time. Duration of each semester (excluding examination time) is to be 15 to 16 working weeks. The number of working days in a semester should preferably be not less than 90. A semester would not be considered complete without academic activities having been actually carried out for the prescribed number of days. The total period for conduct of end-of-semester examinations and declaration of results will be 2 weeks.

All full and part-time courses in the University will be credit based, with one credit equivalent to:

- One 50 minute lecture period per week or
- Two 50 minute tutorial periods / case discussions per week or
- Two/ three 50-minute periods for applied work (laboratory, workshop, fieldwork, etc.) per week

Workload in a semester for any course should range between 25 and 30 credits and contact hours may range from 25 to 35 per week.

Table 6.8: General Framework / Requirements for Course Completion

S. No.	Course Title	Program Completion Requirements	
		Semesters	Credits
1	Bachelor of Arts Integrated	6	175
2	Master of Technology/ Integrated PG programmes in Technology	4/10	100/275
3	Master of Science/ Arts/ Integrated programmes in Arts/ Science	4/10	100/275
4	Master in Business Administration	4	120

6.4 PROGRAMMES OF STUDY

The University will offer formal education programmes through the above-mentioned Schools of Learning/ Study. The education programmes in the university will be very unique in the courses, subjects of study with an appropriate curriculum framework. Each of the schools will offer integrated PG/ Research programmes. However, the programmes will vary with the kind and type of facilities and faculties available, with the phases of establishment of the schools and their facilities. The various kinds of programme under each school of study is illustrated and described below. The generic structure of programmes of study is illustrated as under:

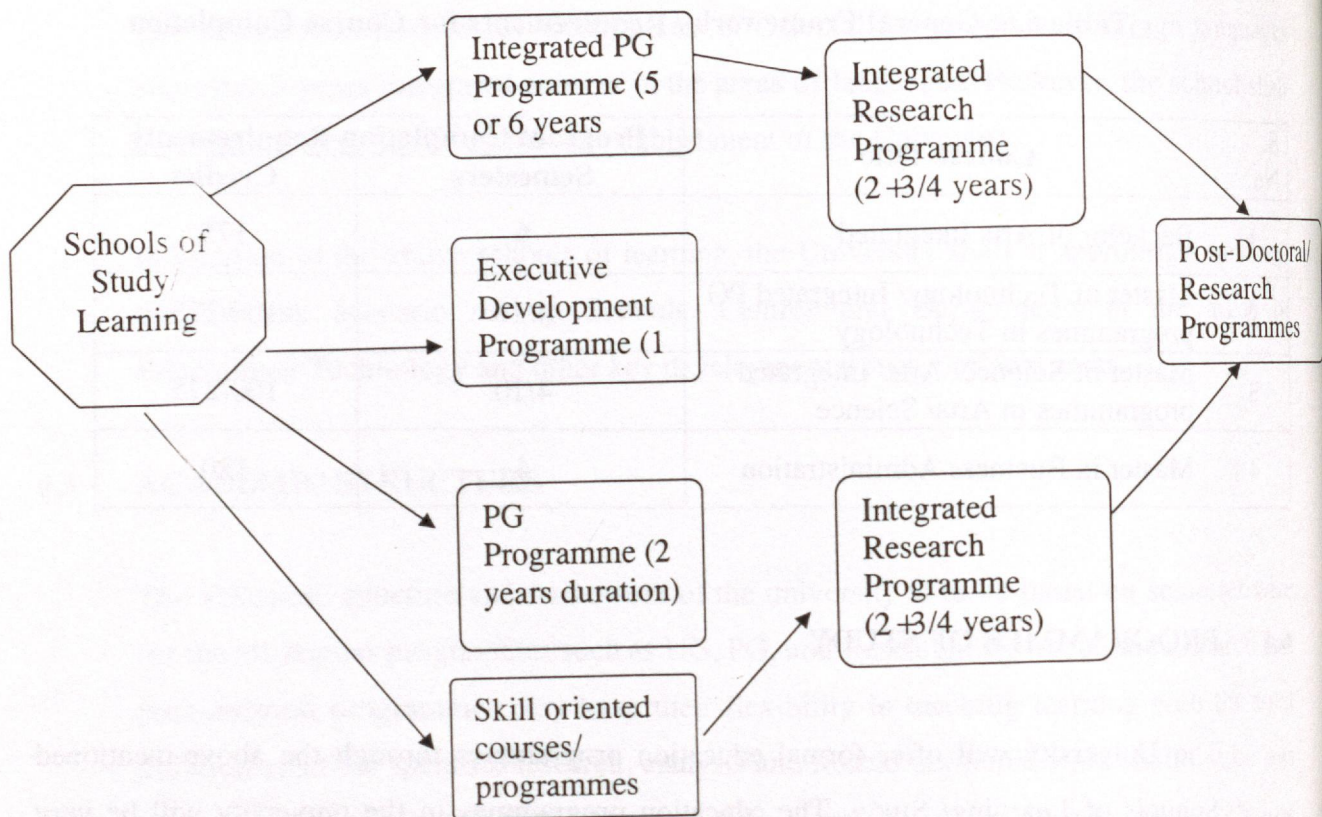


Fig. 6.1 Typical Academic Plan of a School of Learning in the University

The number of programmes will vary with the available departments/ centers of study available in each of the schools. It is also envisaged that the School of Languages will offer UG programmes along with integrated PG programmes.

Types of Higher Education Programmes in the University

It is proposed that, the University will offer the following academic programmes at the post graduate levels and research levels leading to award of doctoral by thesis and post doctoral by achievement by publications and such other relevant materials (literary publications, research publications etc.).

The University will offer courses and programmes at the Master's level (standalone) and integrated PG programme of (5 or 6 years duration) depending on the kind and type of courses.

Undergraduate courses will be offered only in the languages to offered in the School of Languages. The degrees offered will be Bachelor of Arts.

PG Integrated Courses will be offered in all schools except the languages. The award of degrees will be Master of Arts / Sciences / Technology / Business Management etc. with duration mentioned on 5 years / 6 years etc.

PG Standalone courses will also be similar to that of the integrated courses. The PG degrees will be in the broad areas of Arts / Sciences / Technology / Management / Law, etc. However, each School of Studies are liberal to specialize in their areas of expertise and award their degrees with the approval of Academic Council.

Management/ Executive Programmes will also be offered under each of the Schools. In the phase of Establishment Executive Programmes are envisaged for the Management School, as the team foresee, income generation as well as demand in this Sector considering the time frame each school on its establishment may identify skill / demand in their field of specialization to offer such programmes.

Research Programmes shall be offered in all the schools of Learning/ Study with an integrated approach cutting across the disciplines. The research programmes in the University must be innovative / unique in methodology of doing research, choosing areas of specializations of study etc. Each school shall have liberty in the regulation, as approved by the Research / Academic Council.

All the schools shall depending on the availability of expertise and extent of coverage and reach shall offer continuing education programmes with varying duration and disciplines in the cutting edge areas of technology, philosophy in the domain of the university. Such

courses and programmes may be offered through contact type programmes to be conducted on-campus and off-campus work sites suiting the needs and requirement. The school shall also offer programmes on the line of multi-entry at the doctoral and post-doctoral level programmes with the aim to scholarly learning in the campus. The University shall have the academic programmes / schools established in Phases, which is discussed in later chapter.

6.5 FACULTY CONSULTANCY

The teaching staff may be encouraged to undertake consultancy assignments in addition to implementing sponsored research programs. The guidelines regulating to time devoted to consultancy by individual staff members and income sharing between the University and the participating faculty may be worked out suiting the requirement, need and as recommended by the Academic Council. These would be instituted as a regulation after due approval by the Executive Council. The Dean of Academic Affairs would regulate the total consultancy activity in each school.

6.6 SPONSORED RESEARCH AND INDUSTRIAL CONSULTANCY

The teaching faculty and the Schools may be encouraged to undertake faculty research and industrial sponsored research work. These activities shall motivate students to not only involved in experiential learning but allow them to work on the real problems of the industry, stakeholders of the institutions/ organizations.

The schools may also be encouraged to under take sponsored research of the responsible Ministry such as Human Resource Development, Sciences and Technology, Biotechnology, Agriculture, Environment and Forests, Renewable Energy Resources, Defence etc.

The faculty may also be encouraged to seek assistance from International associations/ collaborations and partnerships with other national and international institutions where have interest in the University academic activities.

6.7 NALANDA TOWNSHIP

Nalanda University is expected to be spread in 650 acres of land during the Inception Phase of 10 years. The University will comprise several Schools of Learning / Centre / Departments as proposed earlier in section 6.2 in this chapter, in consonance to the development of the University as it may deem fit to be introduced at various phases. It is envisaged that the University will have activities including the Township of the University Campus. The activities shall include having facilities for Shopping and Marking / Malls, Entertainment / Infotainment (information highway, fairs, trade centres), Mini Hospital-cum-Medical Facility Centre, Communication and related services (Internet, Cyber Café, Cineplex's, Eat Outs etc.), Sports and Gymnasia, Tourism and religious melas, a Centralized Transport facilities with surface and air transport etc. To support these activities, the University will rent out land space to institutions / organizations / firms to set up and establish physical facilities and carry out the respective services to meet needs / requirement of University objectives. If the need arises, the University may like to set up needed infrastructure such as auditoria, theatres, which can be leased / rented to corporates to undertake these services.

RESOURCE REQUIREMENT

LAND REQUIREMENT

The siting of the proposed International College of the East, Inc. has been considered to replicate the concept, teaching at basic and technology areas of the excellent National University. With this a major objective of University, the land area requirement has been set in any of the following manner of national institutions.

Chapter 7: Resource Requirement

Ministry of Education, the State Government of Bihar for District, Nalanda envisaged through with East Asian Countries, as a result, the District is proposed to have an international Airport, D.D.C. (District Development Council) schools, which required is a global village with international standards and facilities encompassing the entire districts in the around Nalanda.

BUILDINGS FOR COMMON AREAS OF THE UNIVERSITY

The physical infrastructure (buildings, transport, Sound / Synagogue Library, infrastructure, space for residence) is required to be established with the building up of the University for the conduct of education and learning programmes. The requirement of space for all-education (basic / technology) programmes is as follows:

Chapter 7

RESOURCE REQUIREMENT

7.1 LAND REQUIREMENT

The visioning of the proposed International Nalanda University has been mandated to replicate the concepts, learning methods and technology areas of the erstwhile Nalanda University. With such a vision advocated to University, the land space requirement has been kept to any of the leading institute of national importance. Moreover, keeping in view the 100 years perspective and lateral and horizontal development focus of the university, the land space may be envisaged around 1000 acres. This would include space for a Meditation Centre, an Innovation Hub, Science and Technology Park and Incubation Centres Supported by industry. The Master Plan as per the State Government of Bihar for Distt. Nalanda envisages linkages with East Asian Countries, as a result, the Dist. in proposed to have an international Airport. DRDO labs, Sainik farms / schools, almost required to a global village with international standards and facilities encompassing the tourist facilities in & around Nalanda.

7.2 BUILDINGS FOR COMMON AREAS OF THE UNIVERSITY

The physical infrastructure (buildings, classrooms, Board / Syndicate Library infrastructure, Space for residential) is required to be established with the sitting up of the University for the conduct of education and learning programmes. The requirement of space for all education (formal / continuing) programmes is as under.

AREA OF BUILDINGS

Description of each Building	Total Area in Sqmt.
(a) Administrative Area	
Administrative Block	2500
Registrar & Others	
Examination Block	5000
Chancellor & Vice-chancellor office	300
Confidential Room	120
Reception Lounge	60
Committee/ Syndicate Rooms	200
Accounts Block	2500
Total (a)	10680
(b) Amenities Area	
Central Library	1750
Auditorium	2000
Computer Centre	1000
Indoor Sports Centre	1500
Outdoor Sports Centre	5000
Seminar & Meeting Halls	1200
Exhibition Hall & Galleries	1500
Canteen	500
Car & Scooter Parking Stand	1000
Total (b)	15450
(c) Residential Area	
Chancellor/Vice-chancellor Residence	700
Visitors and Nominees	500
Faculty	42000
Essential Support Staff	32000
Guest House & MDP House for 60 Candidates	2000
Hostels (5000 Double seater)	34000
International Hostel (1000 Single Occupancy)	17000
Total (c)	128200
Grand Total (a) to (c)	154330

7.3 BUILDINGS FOR VARIOUS SCHOOL OF LEARNING

The physical infrastructure for various schools of learning are discussed here under.

1 Schools of Philosophy and Buddhist Studies

Academic & Instructional Areas:

Lecture Rooms	864
12 Nos. of 60 students each	
Tutorials Rooms	360
20 Nos. of 15 students each	
Seminar Room (2 Nos)	400
Library	250
Academic Block (Faculty Room/Common Room etc.)	900
Meditation Lab	200
Computer Centre cum cyber café	400
Administrative Area	100
Dean Office	100
Confidential Room	80
Reception Lounge	50
Committee/Syndicate Room	200

Amenities Area

Common Room for Students (3 Nos.)	240
Toilet Block	150
Cafeteria	100

Total (1) 4394

2 School of Information & Communication Technology

Academic & Instructional Areas:

Lecture Rooms	2160
30 Nos. of 60 students each	
Tutorials Rooms	1080
60 Nos. of 15 students each	
Drawing Halls (2 Nos.)	300
Computer Centre/Server Room	200
Seminar Room (3 Nos)	450
Library	300
Academic Block (Faculty Room/Common Room etc.)	2100
Laboratories (Physics, Chemistry, Bio-tech etc.)	4000
Workshop	500
Cyber Café	200
Administrative Area	150
Dean Office	100
Confidential Room	80
Reception Lounge	50
Committee/Syndicate Room	200

Amenities Area

Common Room for Students (4 Nos.)	240
Toilet Block	150
Cafeteria	100
Total (2)	12360
3 School of International Studies	
<i>Academic & Instructional Areas:</i>	
Lecture Rooms	288
4 Nos. of 60 students each	
Tutorials Rooms	288
16 Nos. of 15 students each	
Seminar Room (2 Nos)	300
Library	200
Academic Block (Faculty Room/Common Room etc.)	885
Computer Centre cum cyber café	150
Administrative Block	150
Dean Office	100
Confidential Room	80
Reception Lounge	50
Committee/Syndicate Room	100
<i>Amenities Area</i>	
Common Room for Students (3 Nos.)	180
Toilet Block	100
Cafeteria	100
Total (3)	2971
4 School of Basic and Applied Sciences	
<i>Academic & Instructional Areas:</i>	
Lecture Rooms	720
10Nos. of 60 students each	
Tutorials Rooms	360
20 Nos. of 15 students each	
Computer Centre/Server Room (1 Nos.)	100
Seminar Room (3 Nos)	300
Library	200
Academic Block (Faculty Room)	1320
Laboratories (Physics, Chemistry, Bio-tech etc.)	1400
Cyber Café	150
Administrative area	200
Dean Office	100
Confidential Room	80
Reception Lounge	50
Committee/Syndicate Room	150
<i>Amenities Area</i>	
Common Room for Students (2 Nos.)	240
Toilet Block	100
Cafeteria	100
Total (4)	5570

School of Natural Resource Management & Emerging	
5 Technology	
Academic & Instructional Areas:	
Lecture Rooms	2448
34 Nos. of 60 students each	
Tutorials Rooms	1224
68 Nos. of 15 students each	
Drawing Halls (2 Nos.)	300
Computer Centre/Server Room	200
Seminar Room (3 Nos)	600
Library	300
Academic Block (Faculty Room/Common Room etc.)	2580
Laboratories (Bio-tech, Food Tech etc.)	4500
Workshop	500
Cyber Café	150
Administrative Area	150
Dean Office	100
Confidential Room	80
Reception Lounge	50
Committee/Syndicate Room	300
<i>Amenities Area</i>	
Common Room for Students (4 Nos.)	240
Toilet Block	150
Cafeteria	150
Total (5)	<u>14022</u>

6 School of Development Studies	
Academic & Instructional Areas:	
Lecture Rooms	720
10 Nos. of 60 students each	
Tutorials Rooms	1440
20 Nos. of 15 students each	
Server Room /Computer Centre	200
Seminar Room (2 Nos)	350
Library	300
Academic Block (Faculty Room/Common Room etc.)	1095
Laboratories	800
Cyber Café	150
Administrative Block	100
Dean Office	100
Confidential Room	80
Reception Lounge	50
Committee/Syndicate Room	150
<i>Amenities Area</i>	
Common Room for Students (2 Nos.)	120
Toilet Block	100
Cafeteria/shop	100
Total (6)	<u>5855</u>

7 School of Languages	
Academic & Instructional Areas:	
Lecture Rooms	504
7 Nos. of 60 students each	
Tutorials Rooms	1080
15 Nos. of 15 students each	
Seminar Room (2 Nos)	350
Library	300
Academic Block (Faculty Room/Common Room etc.)	1095
Laboratory (Media/Communication)	750
Computer Centre cum cyber café	100
Administrative Block	80
Dean Office	100
Confidential Room	80
Reception Lounge	50
Committee/Syndicate Room	150
<i>Amenities Area</i>	
Common Room for Students (4 Nos.)	120
Toilet Block	100
Cafeteria/Shop	100
Total (7)	4959
<hr/>	
Grand Total (1) to (7) (Sq. tm.)	204461

The total area for building requirement for phase I of development for 7 schools of learning indicated above 204461 esq. Depending on number of programmes and perspectives of the University, the physical facilities shall accordingly be developed on similar lines.

TOTAL COST OF LAND DEVELOPMENT

Particulars	Total Amount (Rs. Lakhs)
Cost of 1000 acres of Land	2000
Cost of leveling & development of land	475
Cost of laying internal roads	400
Cost of fencing/compound wall	400
Cost of External Development	300
Total	3575

7.4 HUMAN RESOURCE

Commensurating with the establishing of the University and their respective schools of learning, the overall teaching faculty ratio has been kept at 1:10 and teaching student faculty (within their cadres) has been kept at 1:2:4 which are standard norms as per practice in many leading institute of national importance and guidelines of statutory bodies such as UGC and AICTE.

The overall teaching faculty requirement for the initial 2 phases in illustrated hereunder:

	Phase I					Phase II				
	1	2	3	4	5	6	7	8	9	10
Total Faculty	114	221	291	361	453	487	512	533	553	582
a. Professor	17	32	42	52	65	70	74	77	79	84
b. Associate Professor	34	64	84	104	130	140	148	154	158	168
c. Assistant Professor	63	125	165	205	258	277	290	302	316	330

Similarly, the breakup for various schools learning and their faculty requirement based on the proposed academic programmes is illustrated below:

(i) School for Philosophy and Buddhist Studies:

	Year(s)									
	1	2	3	4	5	6	7	8	9	10
Total Faculty	13	25	32	38	45	45	45	45	45	45
Professor	2	4	5	6	7	7	7	7	7	7
Associate Professor	4	8	10	12	14	14	14	14	14	14
Assistant Professor	7	13	17	20	24	24	24	24	24	24

(ii) School of Information & Communication/ Informatics:

	Year(s)									
	1	2	3	4	5	6	7	8	9	10
Total Faculty	34	67	91	116	140	140	140	140	140	140
Professor	5	10	13	17	20	20	20	20	20	20
Associate Professor	10	19	26	33	40	40	40	40	40	40
Assistant Professor	19	38	52	66	80	80	80	80	80	80

(iii) School of Basic and Applied Sciences:

	Year(s)									
	1	2	3	4	5	6	7	8	9	10
Total Faculty	23	46	58	71	86	88	88	88	88	88
Professor	3	7	8	10	12	13	13	13	13	13
Associate Professor	7	13	17	20	25	25	25	25	25	25
Assistant Professor	13	26	33	41	49	50	50	50	50	50

(iv) School of Development Studies:

	Year(s)									
	1	2	3	4	5	6	7	8	9	10
Total Faculty	6	12	13	19	26	32	45	51	51	51
Professor	1	2	2	3	4	5	6	7	7	7
Associate Professor	0	3	4	5	7	9	13	15	15	15
Assistant Professor	0	7	7	11	15	18	26	29	29	29

(v) School of Natural Resource Management:

	Year(s)									
	1	2	3	4	5	6	7	8	9	10
Total Faculty	27	54	71	89	123	132	140	148	156	172
Professor	4	8	10	13	18	19	20	21	22	25
Associate Professor	8	15	20	25	35	38	40	42	45	49
Assistant Professor	15	31	41	51	70	75	80	84	89	98

(vi) School of International Studies:

	Year(s)									
	1	2	3	4	5	6	7	8	9	10
Total Faculty	13	25	34	42	55	59	59	59	59	59
Professor	2	4	5	6	8	8	8	8	8	8
Associate Professor	4	7	10	12	16	17	17	17	17	17
Assistant Professor	7	14	19	24	31	34	34	34	34	34

(vii) School of Languages:

	Year(s)				
	6	7	8	9	10
Total Faculty	15	29	36	42	49
Professor	2	4	5	6	7
Associate Professor	4	8	10	12	14
Assistant Professor	8	17	20	24	28

FINANCIAL PLAN

8.1. FINANCIAL REQUIREMENT

Activities related to the establishment of the International Nalanda University infrastructure and physical facilities at Nalanda have phased financiality and shown in Schedule 1 and 2. The key features of the phased plan are:

Chapter 8: Financial Plan

administrative / management, amenities areas and residential facilities may also begin in 2018 itself in a temporary campus, however this will continue in the subsequent financial years until its complete establishment. In all, it is envisaged that the construction phase in the proposed new site shall begin with in the span of the 1st academic session. It is also envisaged that with completion of Phase II all civil, physical facilities campus development work be completed and equipped to offer state of art educational Nalanda, great seat of learning.

It is proposed that the Government of Bihar constitute a Special Task Force (STF) for implementation of University Plans in a Phased manner under the major heads:

- a. Task force for land and site development & master plan formulation
- b. Task force for physical infrastructure facilities development
- c. Task force for Academic Plan development and implementation
- d. Task force for concurrent Monitoring and Evaluation and Implementation

Chapter 8

FINANCIAL PLAN

8.1 FINANCIAL REQUIREMENT

Activities related to the establishment of the International Nalanda University infrastructure and physical facilities at Nalanda have phased financially and shown in Schedule 1 and 2. The key features of the phased plan are:

1. Establishment of 7 schools of Learning for the University would commence with the first phase of establishment in the year 2008-2009 academic session (i.e. year 0 of establishment of the University).
2. Establishment of general administrative facilities such as building for administrative / management, amenities areas and residential facilities may also begin in 2008 itself in a temporary campus, however this will continue to the subsequent financial years until its complete establishment.
3. In all, it is envisaged that, the construction phase in the proposed new site shall begin with in the start of the 1st academic session. It is also envisaged that with completion of Phase II all civil, physical facilities campus development shall be completed and equipped to offer state of art education at Nalanda, great seat of learning.
4. It is proposed that, the Government of Bihar constitute a Special Task Force (STF) for implementation of University Plans in a Phased manner under the major heads.
 - a. Task force for land and site development & master plan formulation.
 - b. Task force for physical infrastructure facilities development
 - c. Task force for Academic Plan development and Implementation.
 - d. Task force for concurrent Monitoring and Evaluation and Implementation.



8.2 ASSUMPTIONS FOR COST ESTIMATES

The following assumptions have been made for capital (non-recurring expenditure) and recurring expenditure (for 10 years horizon). The figures for recurring expenditure are shown for buildings (main university administrative, planning and establishment) and various schools of learning.

- i) Average land development cost for campus has been worked out on the Central PWD rates of Government of India with base 100 as on 1.1.92. Rs. 3575 lakhs (as given in Schedule 2) including cost of land, leveling and development, laying internal roads, fencing and compound wall, and external development.
- ii) Gross area of constructed spaces is estimated at 204461 sq.m (Schedule 1).
- iii) Average construction cost @ Rs. 11000 sq.m. of gross area (Schedule 1).
- iv) Cost of furniture and furnishing has been taken into account w.r.t. schools of learning under equipment and aids (as given in Schedule 5).
- v) The teaching faculty cost has been indicated school wise. However, non teaching staff and the entire university has been considered and indicated in Schedule 6.
- vi) Gross annual emoluments (including benefits like CPF / GPF, LTC, medical, etc.) have been considered. The teaching faculty cost has been indicated school wise. However non-teaching staff for the entire university has been considered and indicated in Schedule 6.1.
- vii) Support staff provision has been deliberately kept low in order to reduce permanent liabilities on the University. The low provision has been compensated through provision and contracted services such as maintenance of building, hostels and guest houses, canteen and other food services, security, campus maintenance, sundry labor, etc.).

- viii) The libraries are expected to be fully provided with the learning resources by the year of start of academic programmes. It is envisaged that the University shall have a Central library in addition to departmental / school library specific to teach of them . This shall facilitate easy access to learning resource at the needed time.
- ix) Expenditure on research, books, journals and other learning resources (modern, traditional) has been estimated at 10% of total emoluments of all staff of the university and is indicated in Schedule 7, Recurring Expenditure.
- x) An estimate of Rs. 640 lakhs (as given in Schedule 3) has been envisaged towards preliminary and preoperative expenses spread across initial 2 years. The expenses relating to this include drafting documents for the university, feasibility and master plan preparation, establishment charges (construction of project implementation team). Traveling, conveyance, inspection monitoring and evaluation, advertisement and publicity, etc.

UNIVERSITY IMPLEMENTATION PLAN

TIME FRAME

Activity Heads / Description	Year of Start	
Land Acquisition	2006	1
Land Development & Registration	2007	2
Processing of Statutory Recognition Registration	2007	3
Development of Architecture Plans & Commencement of Construction	2008	

Chapter 9: University Implementation Plan

Establishment of University Under The Act/ Bill	2007	1
Seeking recognition from ARTE/UGC/ other Statutory Council for the various Programs	2007	2
Commencement of Construction activity - Phase I	2010	3
Recruitment & Selection of Faculty Phase I (2007-2008)	2007	2
Recruitment & Selection of Administrative & Support Staff	2007	2
Setting up Offices and Resource Centers	2008	3
Procurement of Equipment Phase I (2007-08)	2008	3
Admission of Students for the First Academic Year	2008	3
Establishment of Academic Session (2007-08)	2008	4
Constitution of Academic Council	2007	2
Constitution of Executive Council	2007	2
Constitution of Board of Studies & other Boards as required	2008	3
Constitution of Services Units	2008	3
Academic Research Activities Phase I (2007-08)	2007	2
Construction Activity Phase II (2008-09)	2011	4
Procurement of Equipment Phase II (2008-09)	2011	4
Academic & Research Activities Phase II (2008-09)	2009	3
Recruitment & Selection of Faculty Phase II (2008-09)	2010	5
Commencement of Construction Activity Phase II	2012	8
Recruitment & Selection of Faculty Phase III (2009-10)	2012	5
Recruitment & Selection of Faculty Phase IV (2010-11)	2014	10
Start of Publication of Journals/annual report of Department of a faculty		

Chapter 9

UNIVERSITY IMPLEMENTATION PLAN

9.1 TIME FRAME

Activity Heads / Description	Year of Start	
Land Acquisition	2006	1
Land Development & Registration	2007	2
Processing of Statutory Recognition Registration	2007	2
Development of Architecture Plans & Contracting of Construction Activity	2008	3
Appointment of Vice-Chancellor, Deans, Registrar and Finance Officer	2007	2
Constitution of Finance Committee	2007	2
Commencement of Construction Activity - Phase I	2008	3
Seeking University status from State Government	2007	2
Forward of recommendation for University status of UGC by the State Government	2007	2
Establishment of University Under the Act/Bill	2007	2
Seeking recognition from AICTE / UGC / other Statutory Council for the Education Programs	2007	2
Completion of Construction Activity - Phase I	2010	5
Recruitment & Selection of Faculty Phase I (2007-2008)	2007	2
Recruitment & Selection of Administrative & Support Staff	2007	2
Establishing Linkages and Resource Centres	2008	3
Procurement of Equipment Phase I (2007-08)	2010	5
Admission of Students for the First Academic Year	2008	3
Commencement of Academic Session (2007-08)	2009	4
Constitution of Academic Council	2007	2
Constitution of Executive Council	2007	2
Constitution of Board of Studies & other Boards as required	2008	3
Constitution of Services Units	2008	3
Academic Research Activities Phase I (2007-08)	2009	5
Construction Activity Phase II (2008-09)	2011	6
Procurement of Equipment Phase II (2008-09)	2012	7
Academic & Research Activities Phase II (2008-09)	2009	4
Recruitment & Selection of Faculty Phase II (2008-09)	2010	6
Completion of Construction Activity Phase II	2012	8
Recruitment & Selection of Faculty Phase III (2009-10)	2012	8
Recruitment & Selection of Faculty Phase IV (2010-11)	2014	10

(Years in Parenthesis indicate tentative year of beginning of activity)

All the above mentioned activities shall be completed within a time span of 5 years. The phasing of recruitment of faculty, creation of infrastructure, library, workshops and laboratory etc. may be done suitably with the proposed vision, mission and objectives.

With the objective of taking the mission of resurrecting the vision, objectives of the new Nalanda University, the Government of Bihar shall set up a high level, University Task Force Committee with defined and targeted terms of reference with various tasks of establishing the University. As also suggested by the Hon. Chief Minister, a Group of high level intellectuals be formed for conceptualization, academic plan implementation, and community interaction for sharing the knowledge base evolved through the university.

Address at the
Symposium on Nalanda: Buddhist Cultural links between
Eastern and Southern Asia
Rashtropati Bhawan, Multimedia Studio
(Through Multimedia Tele-conference)
New Delhi

13 November 2006

Evolution of Enlightened Citizens in planet Earth

Annexures

I am delighted to participate in the International Symposium, Nalanda: Buddhist cultural links between East and South Asia. I am very happy that this symposium in Singapore is bringing together thinkers from different nations to discuss the cultural and spiritual thoughts relevant to the present ambience in our planet. My greetings to all the participants of this symposium. I would like to discuss with you on the topic "Evolution of Enlightened Citizens in planet Earth".

Unity of Minds

I would like to share with you friends, an experience when I visited in the year 2003 one of the Indian states, Arunachal Pradesh, I visited a Buddhist monastery at Tawang

Dr. Allam Raju

13 November 2006

Address at the
**Symposium on Nalanda: Buddhist Cultural links between
Eastern and Southern Asia**
Rashtrapati Bhavan, Multimedia Studio
(Through Multimedia Tele-conference)
New Delhi

13 November 2006

Evolution of Enlightened Citizens in planet Earth

*"Past meets the present
and creates the future"*

I am delighted to participate in the International Symposium, Nalanda: Buddhist cultural links between East and South Asia. I am very happy that this symposium in Singapore is bringing together thinkers from different nations to discuss the cultural and spiritual thoughts relevant to the present ambience in our planet. My greetings to all the participants of this symposium. I would like to discuss with you on the topic "Evolution of Enlightened Citizens in planet Earth".

Unity of Minds

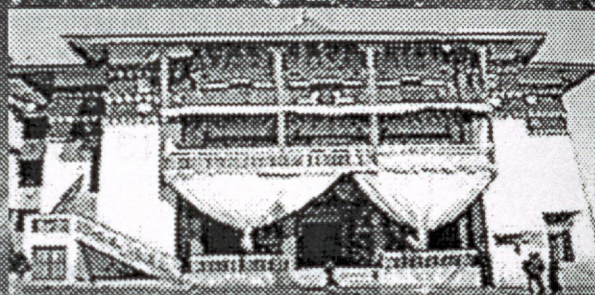
I would like to share with you friends, an experience when I visited in the year 2003 one of the Indian states, Arunachal Pradesh, I visited a Buddhist monastery at Tawang

Dr. APJ Abdul Kalam
www.presidentofindia.nic.in



Tawang Buddhist Monastery

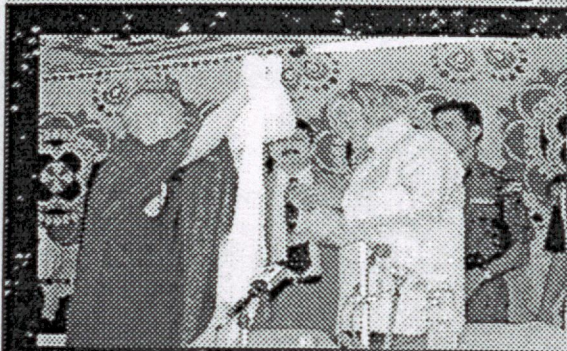
A beautiful spiritual environment at an altitude of 3,000 meters,
400 years old history in Arunachal Pradesh, India



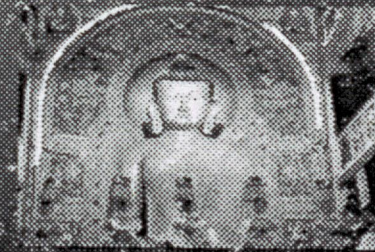
www.presidentofindia.nic.in

3500 m. altitude. I stayed and spent some time nearly for a day. I observed a unique situation in all the villages nearby where young and experienced were all radiating happiness in spite of severe winter environment. Then I visited the 400 years old Twang monastery itself and there also I saw monks of all age groups in a state of serenity. I was asking myself what is the unique feature of Twang and surrounding villages which makes people and monks to be at peace with themselves. When the time came, I asked the Chief Monk, how in Tawang villages and monastry I am experiencing peace and happiness being radiated by everyone. There was a pause, the chief monk smiled. He said, "You are the President of

Message of Peace



- When you remove "I" and "Me" from your mind, you will eliminate Ego;
- If you eliminate Ego, hatred towards fellow human beings vanish;
- If the hatred goes out of our mind, the violence in thinking and action will disappear.



www.presidentofindia.nic.in

India. You will be knowing all about us and the whole nation. Again I said, "it is very important for me, you please give me your thoughtful analysis".

There was a beautiful golden image of Lord Buddha radiating smile and peace. The Chief Monk assembled nearby all his 100 young and experienced monks. The Chief Monk and myself were sitting amidst them. The Chief Monk gave a short discourse, which I would like to share with you. Chief Monk said, "In the present world, we have a problem of distrust, unhappiness transforming into violence. This monastery spreads: "when you remove I and Me from your

mind, you will eliminate ego; if you eliminate ego, hatred

In Search of evolving peaceful, prosperous society

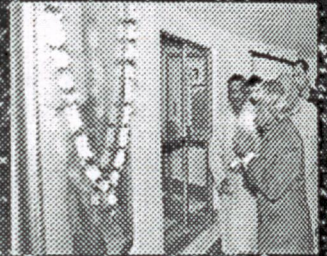


**Visit to Rila Christian Monastery
Bulgaria: Forgiveness**



Visit to Ajmeer Sharif

Only good deeds lead to good thinking, good thinking results into actions radiating love as commanded by Almighty.



**Visit to Birth Place of Swami Vivekananda
Give, Give & Give**

www.presidentofindia.nic.in

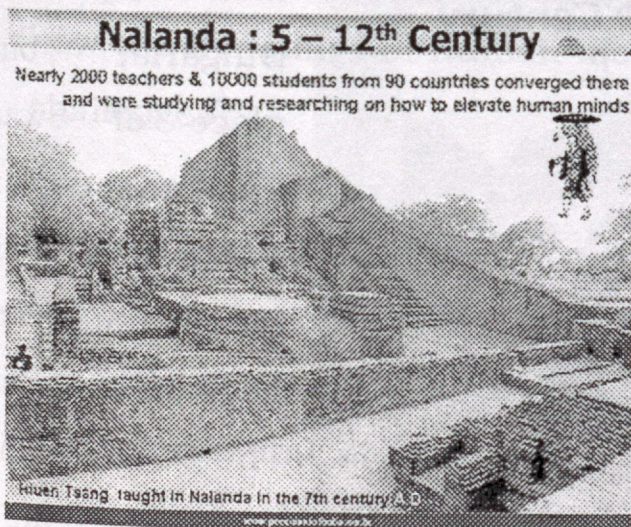
towards fellow human beings will vanish; If the hatred goes out of our mind, the violence in thinking and action will disappear. If violence in our mind is taken away, peace springs in human minds. Then peace and peace and peace alone will blossom in the society”.

In my search for evolving a peaceful and prosperous society, I got part answer. My search for real truth continues. I saw an ancient Christian monastery in Bulgaria where I had a discussion with highly experienced monks on the message of Tawang. The Monk added that forgiveness is also the



foundation of good life. Similarly in the birth place of Swami Vivekanand I explained the Tawang experience to the disciples and they too felt the Tawang experience indeed is beautiful and they added giving trait will add to peace and happiness. Then I visited Ajmeer Sharif where I participated in the Friday Namaz. Here, the Sufi expert told me that Almighty's creation the man has been challenged with another powerful creation of Shaitan. Only good deeds lead to good thinking, good thinking results into actions radiating love as commanded by Almighty. The above as well as my interaction with various other spiritual personalities convinces me that unity of mind is achievable.

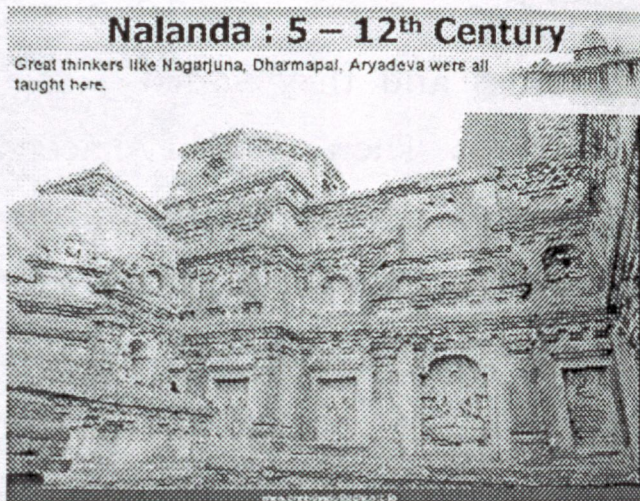
Nalanda, the international learning centre



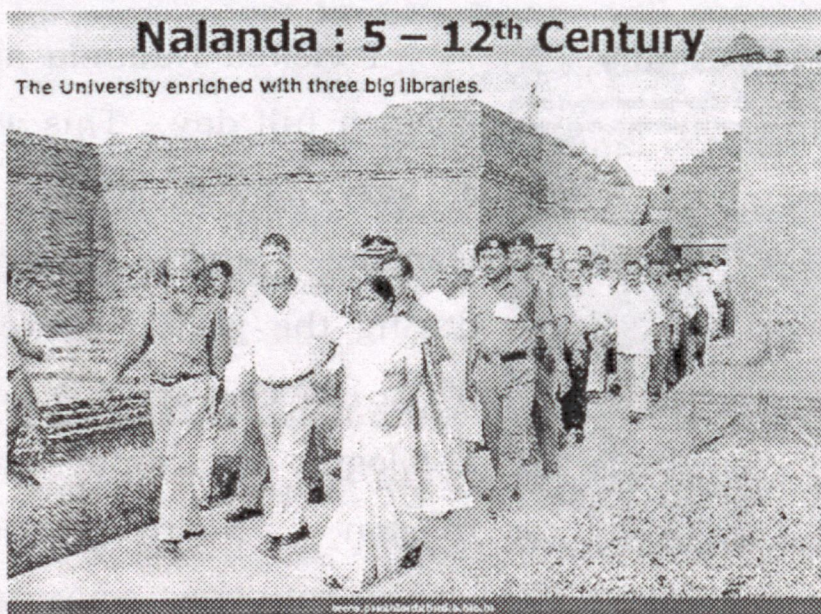
I visited Nalanda and spent a full day. This was a very active center of learning and research during the period between 5th to 12th century A.D., on theology, philosophy and religion. Nearly 2000

teachers and 10000 students from many countries converged there and were studying and researching on how to enrich and

elevate human minds. I saw the areas in Nalanda where the discourses took place, the remnants of hermitages of monks and teachers. Hiuen-e-Sang stayed in Nalanda in the 7th century A.D. and has left detailed description of excellence of education and purity of monastery life. Great thinkers like Nagarjuna, Dharmapala, Arya Deva have all taught here. It is said that the University was enriched with three great libraries.



When I was in Nalanda the entire experiences in Tawang,

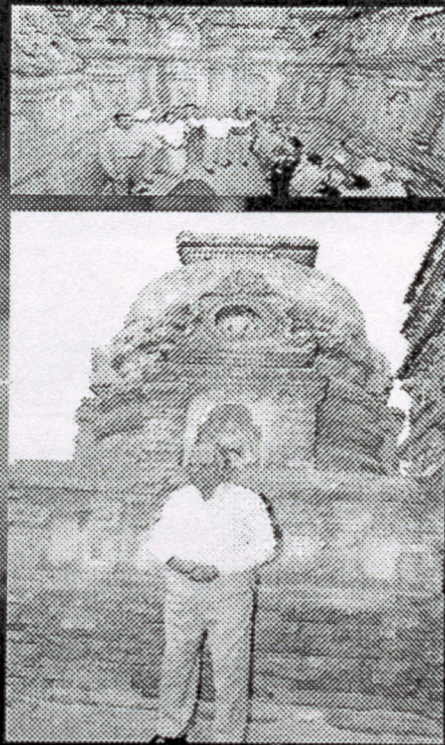


monastery in Bulgaria, birth place of Swami Vivekananda and interaction with Sufi saints came back to my mind. The thinking process led me to visualize a unique



Nalanda : 5 – 12th Century

- When I was in Nalanda the entire experiences in Tawang, monastery in Bulgaria, birth place of Swami Vivekananda and interaction with Sufi experts came back to my mind.
- The question arose why not integrate the thinking process through a unique institution in the modern Nalanda model.



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institution in Nalanda in the context of current ambience in the world. Let us now study the human evolution of today, how the dynamics of human life is changing and what are the challenges?

Human evolution

Life originated in this globe about 600 million years ago and continental drift occurred 200 million years ago making our one land into five continents. Mammals evolved 140 million years ago, Hominid (human type) evolved 26 million years ago but the modern man only some 200,000 years ago.

That too he emigrated and colonized the rest of the world only

Origin of Life

1.	Life originated	: 600 million years ago
2.	Continental drift	: 200 million years ago
3.	Mammals	: 140 million years ago
4.	Hominid	: 26 million years ago
5.	Modern man	: 200,000 years ago
6.	Emigrated	: 50,000 years ago
7.	Spoken	: 10,000 years ago
8.	Progress of man	: 10,000 – 5000 yrs ago

DNA of a Man is HIS history book ever written

Nature-Nurture → Genomic Era

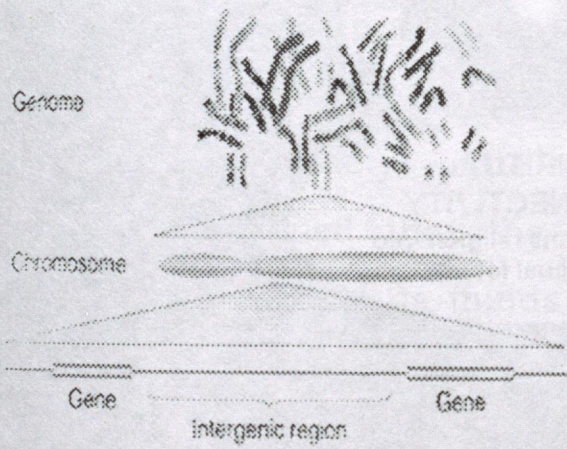
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since 50,000 years. Spoken language was some 10,000 years old while written only a few thousand years old. All the phenomenal progress of Man was thus only within this short span of 400 -200 generations (i.e., 10,000 -5,000 years). With the evolution of human being, many advances in science and technology have been made by him for progressively improving the quality of life. At the same time, from the origin until now, society has always been at war within and between groups and has generated two world wars. Recently, two more wars had also been triggered. Presently, terrorism and low intensity



Human Evolution

The human genome is composed of 23 pairs of chromosomes (46 in toto), each of which contain hundreds of genes separated by intergenic regions. Intergenic regions may contain regulatory sequences and so-called "junk DNA".

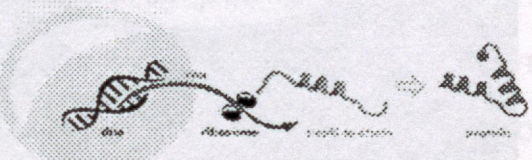


proteomics research

Identify & quantify of proteins (post-translational modifications) protein-protein interactions



protein synthesis



An iconic image of genetic engineering; this "Arabidopsis" from 1986 of a glowing transgenic tobacco plant bearing the luciferase gene of the firefly, illustrating the possibilities of genetic engineering.

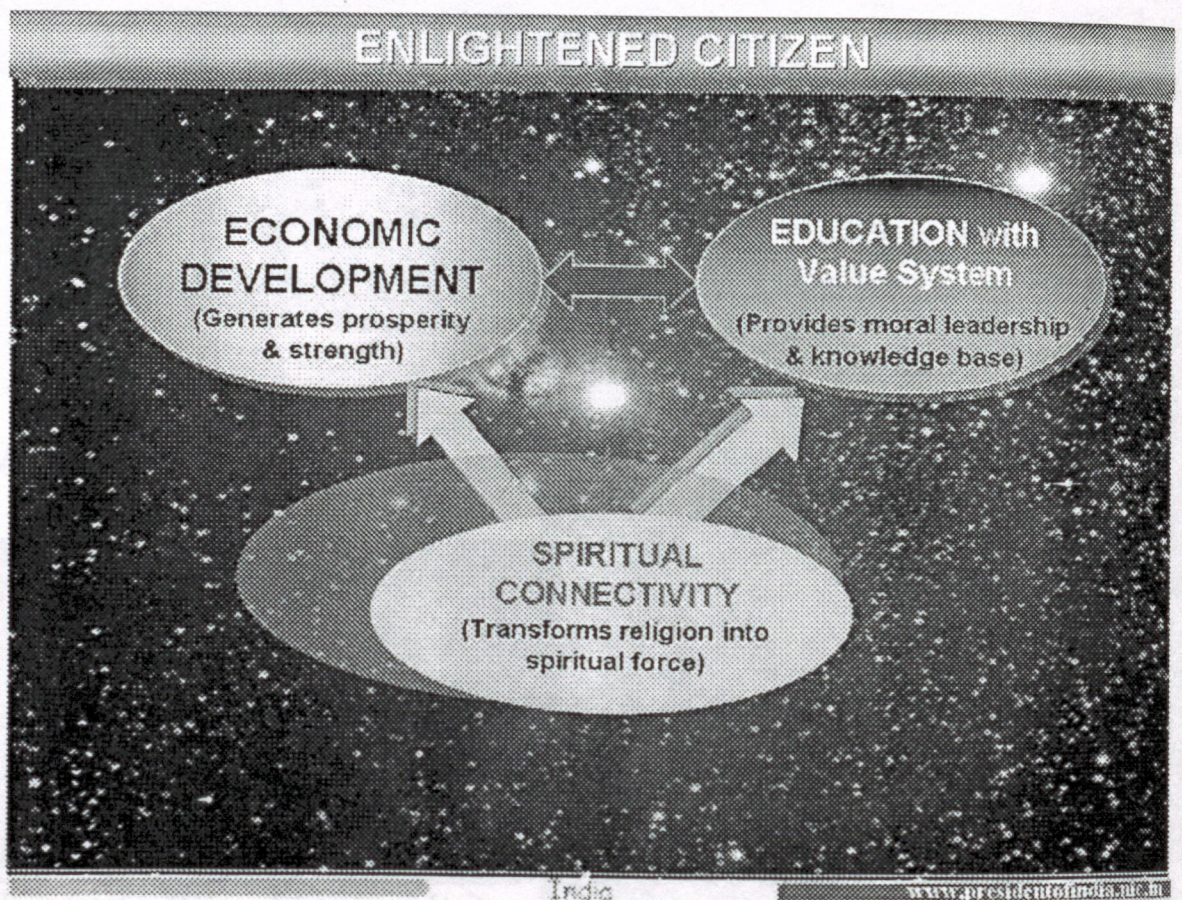
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warfare are affecting many parts of the world. What can be the solution?

Evolution of enlightened citizenship

I would like to put forth to this intellectual gathering, a model for evolving a happy, prosperous and peaceful society in our planet, which I call as 'Evolution of Enlightened Citizen'. I have shared these thoughts with many intellectuals in national and international spheres. How do we create such an enlightened society, which has three components (a) Education with value system (b) Religion transforming into





spirituality and (c) Economic development for societal transformation? Let us discuss.

(a) Education with value system:

I would like to refer a hymn I heard in a spiritual place on the importance of righteousness.

Righteousness

Where there is righteousness in the heart

There is beauty in the character.

When there is beauty in the character,

There is harmony in the home.

When there is harmony in the home.

There is an order in the nation.

When there is order in the nation,

There is peace in the world.

Thus, we can see that the seeds of peace in the world have their origin in the righteousness in the heart of every individual. Such righteous personalities lead to the evolution of enlightened society. The education with value system has to be so designed that the righteousness in the heart is developed in the young minds. That should be the mission of education. The prime learning environment is five to seventeen years' of age. This reminds me the echo from a great teacher's saying, "give me a child for seven years. Afterwards, let the God or devil take the child. They cannot change the child." This indicates the power of great teachers. Parents and teachers must inculcate moral leadership amongst children which involves two aspects. First it requires the ability to have compelling and powerful dreams or visions of human betterment. Secondly, moral leadership requires a disposition to do the right thing and influence others also to do the right thing. During this period, it is essential to elevate the young minds through a moral science class at least one hour per week which will inspire them to love humanity which will be a big step towards the evolution of a conflict free society. Such

enlightened individuals will definitely promote peace and harmony in the planet. During my visit to Singapore, South Korea, Philippines and Myanmar, I have discussed this model with many intellectuals from different walks of life and also with the Buddhist monks in Myanmar.

Historically throughout the world, need has been discussed to establish a bridge among religions. I am of the view spiritual components of all religions can be the unifying factor. Now, I would like to share an experience that I have witnessed regarding religion transforming into a dynamic spiritual force.

(b) Religion Transforming into Spirituality: Universal Mind

I would like to recall an incident which happened four decades ago. Prof Vikram Sarabhai is the visionary of space programme in India. Prof Vikram Sarabhai was looking for a site to establish space research station in the equatorial region. Thumba in South India was selected from many sites by the scientific community for space research. When Prof Vikram Sarabhai visited Thumba, the locality had series of villages and thousands of fishermen folk were living in that area. It also had a beautiful ancient church, St Mary Magdalene Church, Pallithura and a Bishop's House. Prof Vikram Sarabhai met many politicians and bureaucrats to get

the place for the work of space science research. It did not move further because the nature of the place. He was asked to see the Bishop of Trivandrum, at that time in 1962, Rev Father Dr Peter Bernard Pereira. It was a Saturday when Prof Vikram Sarabhai met the Bishop. The Bishop smiled and asked him to meet him the next day, i.e. Sunday. In the morning after the Church Service, the Bishop told the congregation, "My children, I have a famous scientist with me who wants our church and the place I live for the work of space science research. Dear children, science seeks truth by reasoning. In one way, science and spiritualism seek the same divine blessings for doing good for the people. My children, can we give the God's abode for a scientific mission?" There was a chorus of 'Amen' from the congregation and the whole church reverberated. Subsequently, the big event took place in 1962. Rev Dr Peter Bernard Pereira, the Bishop of Trivandrum, took the noble decision to dedicate the church in recognition of the national goal for the establishment of the Indian Space Research Organisation at Pallithura, Thumba. That was the church where we had our design centre, started rocket assembly and the Bishop's house was our scientists' place. Later, the Thumba Equatorial Rocket Launching Station (TERLS) led to the establishment of Vikram Sarabhai Space Centre (VSSC) and multiple space centres throughout the country.

When I think of this event, I can see how enlightened spiritual and scientific leaders, all converge towards giving reverence to the human life. New church and new schools were established in record time. Of course the birth of TERLS and then VSSC gave the country the capability for launch vehicles, spacecrafts and applications. Today, among us, Prof Vikram Sarabhai is not there, Rev Dr Peter Bernard Pereira is not there, but those who are responsible for creation and make the flower blossom will themselves be a different kind of a flower as described in the Bhagwat Gita: "See the flower, how generously it distributes perfume and honey. It gives to all, gives freely of its love. When its work is done, it falls away quietly. Try to be like the flower, unassuming despite all its qualities". What a beautiful message for all generation of this nation, on integration of minds and universal mind.

Let me now discuss with you the third component of the enlightened society for transforming developing nations into developed nations through achieving economic prosperity, so that large societal imbalances can be removed. In this connection, let me take an example of India, which has one sixth of the global population.

(c) Transforming our nation into an economically developed nation

In our country, we have a population of over one billion people of which 220 million are still living below the poverty

Our National Mission – Challenges

- We are one billion+ people
- 600,000 villages with 700 millions people
- 220 million are below poverty line (36 million need employment)
- How to uplift?

- Habitat
- Infrastructure
- Healthcare
- Education
- Employment
- Market connectivity
- Quality of Life

Integrated,
Simultaneous,
Connected
Actions

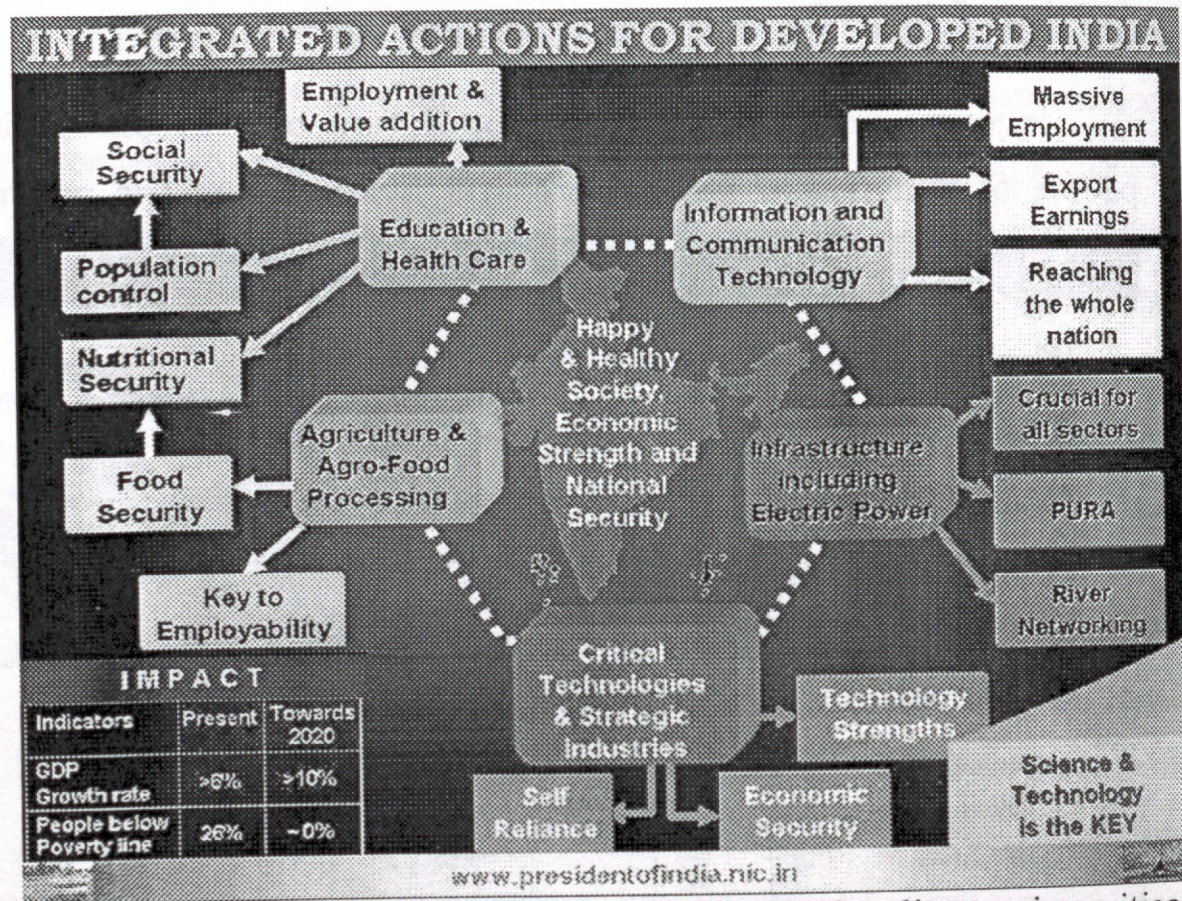
PURA – Providing Urban Amenities in Rural Areas
Target : 7000 PURAs

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line. They need education, they need habitat, they need health care, and creation of employment potential. To meet their needs we have the second vision of transforming India into a developed nation by the year 2020. We have identified five areas where India has a core competence for integrated action: (1) Agriculture and food processing (2) Education and Healthcare (3) Information and Communication Technology (4) Infrastructure development such as power, transportation,

communication and including Providing Urban Amenities in



Rural Areas (PURA) network and (5) Self reliance in critical technologies. These five areas are closely inter-related and if implemented in a coordinated way, will lead to food, and economic security, and national security. Through a national vision, using the core-competence of individual states and partnership of knowledge institutions, it will definitely be possible, to transform a developing state into a developed state as planned.

The three dimensional approach of providing value based education, religion transforming into spiritual force and economic development reaching all the people will have to be

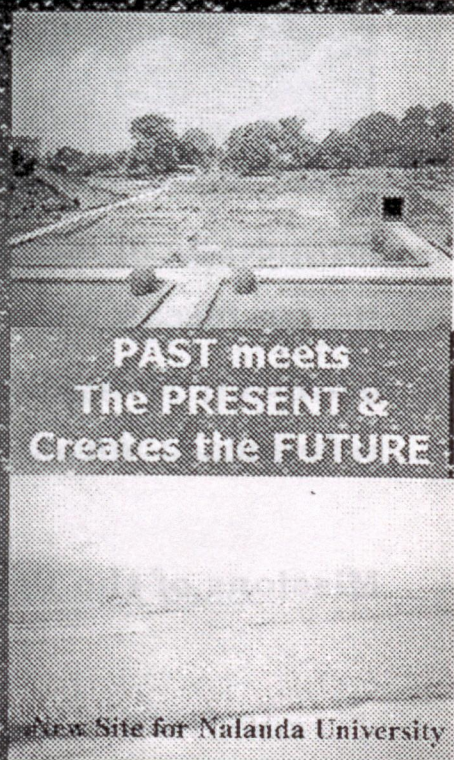
enabled to lead to evolution of a prosperous, happy and peaceful society by all nations. Unity of minds is a prerequisite for such a society. This is the context in which I would like to see the creation of a unique University in Nalanda which will address all the three dimensions as a part of the education and research system for promoting understanding and universal peace.

Nalanda University for Unity of Minds (21st Century)

The idea of this project is to draw inspiration from the

Nalanda University for Unity of Minds (21st Century)

- Draw inspiration from the rich historical traditions of Nalanda, Bodh Gaya, and other spiritual centers in Bihar
- To create a new framework, in the modern context, to generate, share and disseminate knowledge and skills.
- It will be a place for meeting of minds from the national and international arena.
- To do research on unity of minds linking human welfare, science, technologies, economy and spirituality with reference to ancient and modern thinking.



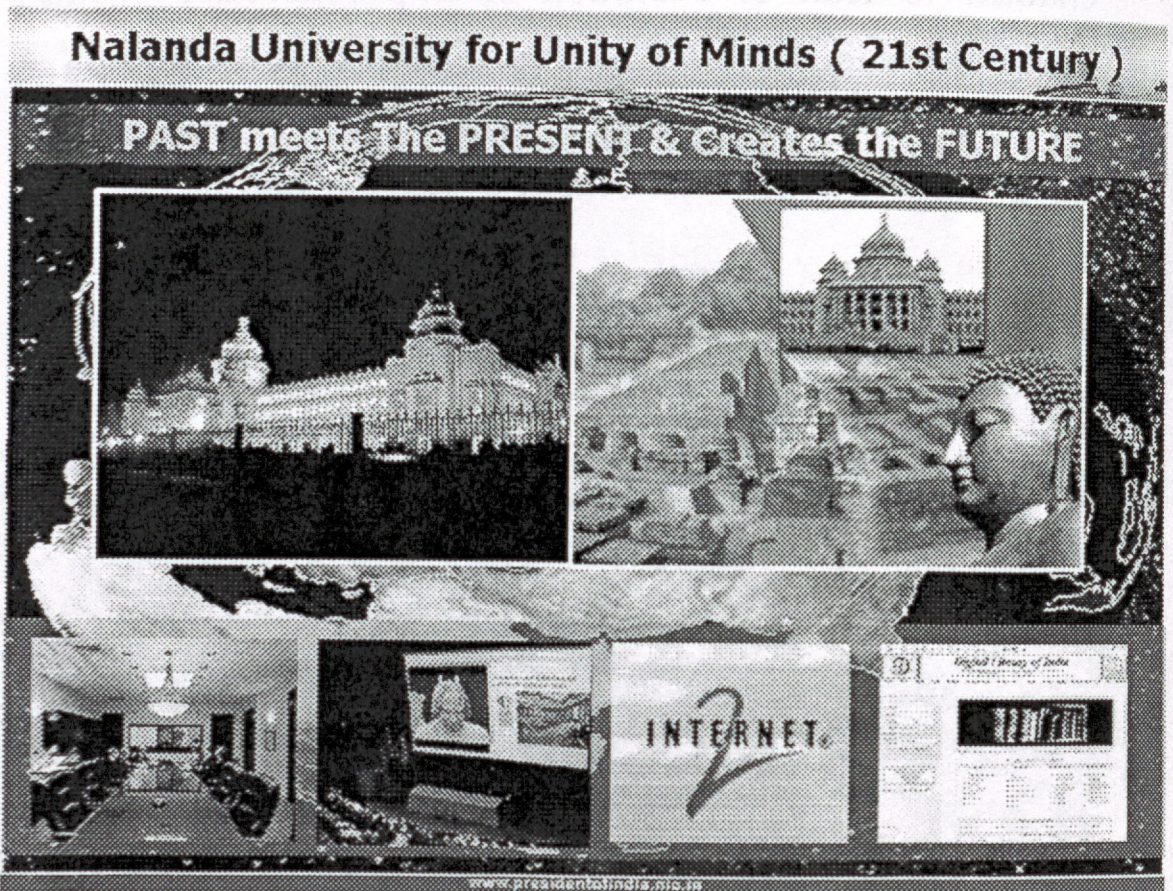
**PAST meets
The PRESENT &
Creates the FUTURE**

New Site for Nalanda University

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rich historical traditions of Nalanda, Bodhgaya where Lord Buddha got enlightenment and other spiritual centers in Bihar

to create a new framework, in the modern context, to generate,



share and disseminate knowledge and skills. It will be a place for meeting of minds from the national and international arena to do research on unity of minds linking human welfare, science, technologies, economics and spirituality with reference to ancient and modern thinking.

Missions of the University

To translate these thoughts, the University will have the following Missions.



- (1) Recapturing in the modern context the holistic traditions of knowledge creation, acquisition and dissemination as practiced in ancient Nalanda.
- (2) Working towards building an inclusive society in a world free of violence, terror, war, and fear;
- (3) Making Nalanda a meeting place for equitable societal welfare, scientific, spiritual, philosophical and religious thoughts. This will provide a platform for research for exploring solution to typical problems of planet earth such as water and energy, survival from the environmental angle, international conflicts and above all elimination of poverty.
- (4) Creating an action oriented academic structure using the core competence of nations to give the planet earth leadership and the management in the education with value system, transforming religion into spiritual force and economic development.
- (5) Creating one of the largest libraries of the world in participation with various national libraries including a digital library.
- (6) Above all, providing leadership in world peace.

The university will be a fully autonomous academic body and the basis of its functioning will be evolved through a process of discussion with hundred scholars drawn from

different parts of the world. They will include philosophers, religious thinkers, economists, scientists, technologists, political thinkers, sociologists, anthropologists, environmentalists, media thinkers and jurists. The participants may include those who have been internationally recognized for their exemplary contribution to peace in the world.

Conclusion

Eight centuries ago, Nalanda University was practicing convergence of minds of international scholars. Since then the humanity has advanced very much, but at the same time the instability and insecurity have also grown. Nalanda University with the mission of Unity of Minds is indeed gaining momentum from Bihar, the birth place of Ancient Nalanda. Multiple nations have to join together to realize a happy, prosperous and safe planet earth. This is possible with the vision of Nalanda University for evolving enlightened citizenship through research, teaching and practice. Before concluding I would like to quote, one of the beautiful thoughts of Gautam Buddha.

*“May nobody wish harm to any single creature,
out of anger or hatred!”*



Let us cherish all creatures,

as a mother her only child!

May our loving thoughts fill the whole world,

Above, below, across – without limit!”

Rediscovering the essence of Nalanda in the modern context with the principle focus on “Evolution of Enlightened Citizen” will be most timely and enable solutions to the problems faced by the humanity today. My best wishes to all the participants of this Symposium.

May God bless you.

Community Linkages

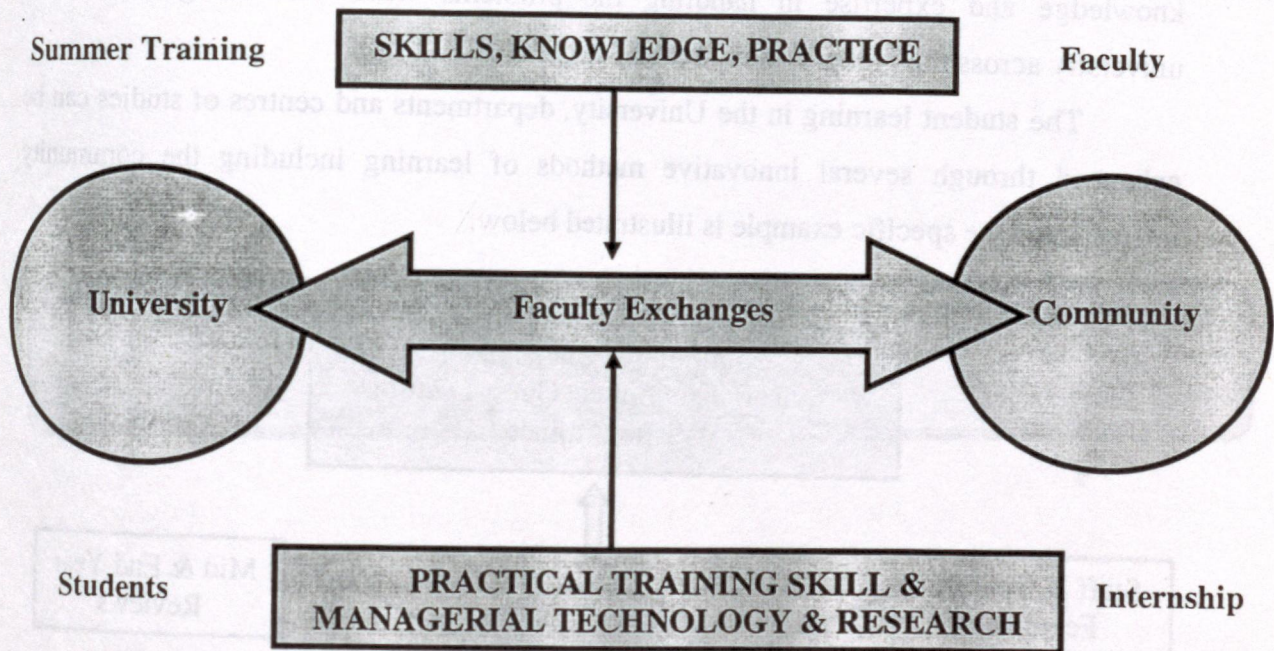
The issue of community linkages with the learning centre are always the fore front in all discussions and deliveries. The teaching and research institutes have potential to generate resources interms of monitory, technological expertise, economic solutions, and such other needs closure to the community. On one hand teaching research institution are by and large pursuing the individual agenda and on the other the community including the industry and amply engaged in developing collaboration, association and technical linkages for imparting technical know-how to pursue individual agendas and building up profits for their stake-holders. One each to understand and realize the society as a whole on each other agenda. This linkages is essential for building up best practice models for higher professional education with the aim of developing excellent human resource.

The institutions and stakeholders including the community / villages abutting the Nalanda University should be termed as institution as a whole for product of ultimately supporting the community at large for its overall development and growth. For this the funding government and stakeholders needs to work out certain policy measures to benefit the University. The benefits could be in terms of tax concession for undertaking research and marketing the products developed in association with the community and the stake holders. Their needs to be a meaningful relationship seen in the operation of this process such as community interaction with the University. Some of the typical activities under this head shall include:

- Students undertaking field study in the villages abutting the University.
- Students interacting with the villages for community health, cooperative agricultural marketing, dairy, energy generation and distribution, cooperative medical care, bio village concept, etc.

- Setting up of low cost marketing produce for higher economy returns and optimum utilization of village resources.

The following Figure illustrates the extent of University Interaction with the community.



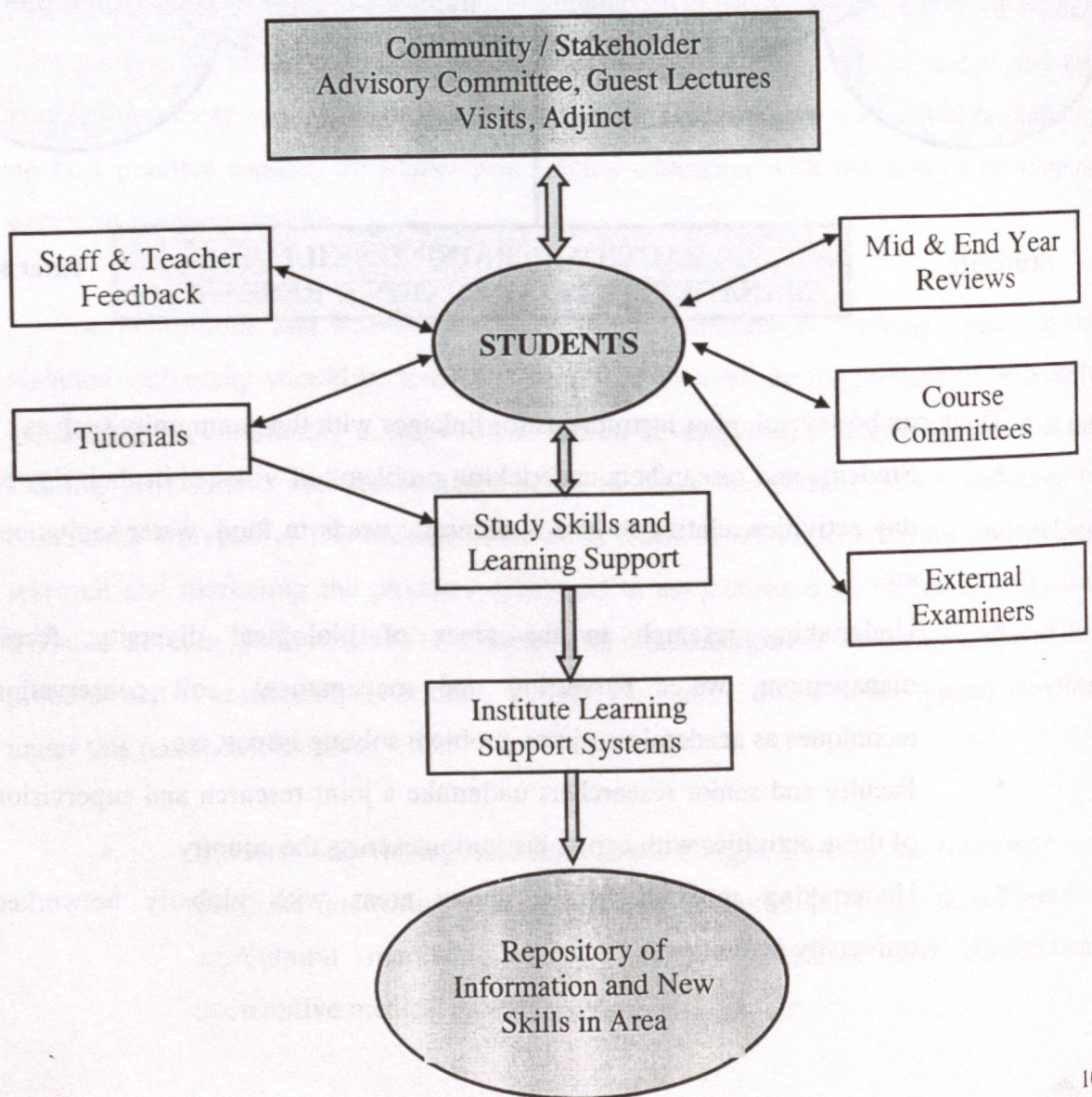
There can be several other instruments for linkages with the community such as :

- Students and researchers undertaking problems of villages in their day to day activities relating to health, domestic needs in food, water sanitation, etc.
- Undertaking research in the areas of biological diversity, forest management, water harvesting and management, soil conservation techniques as academic projects, problem solving issues, etc.
- Faculty and senior researchers undertake a joint research and supervision of these activities with expert institutions across the country.
- Undertaking research in the above areas with globally networked university institutions.

- Attract relevant stake holders to provide exposure to the faculty and students for realization of the growth by developing their insight to the world of reality.

The aim of these research and community interaction will be to develop skills, knowledge and expertise in handling the problems when students graduate from university across the globe in their areas of expertise.

The student learning in the University, departments and centres of studies can be enhanced through several innovative methods of learning including the community interaction. One specific example is illustrated below:



Schedules

COST ESTIMATE OF BUILDING & CIVIL WORKS OF NALANDA UNIVERSITY

(Rs. in Lakhs)

S. No.	Description of Building	Total Area in Sq.mt.	Estimated Cost of Bldg. (-1)	Year										
				0	1	2	3	4	5	6	7	8	9	
(Rs. in Lakhs)														
Common Building & Amenities of Nalanda University														
a.	Administrative Area													
	Administrative Block	2500	275	28	28	28	28	28	28	28	28	28	14	14
	Registrar & Others													
	Examination Block	5000	550	55	55	55	55	55	55	55	55	55	28	28
	Chancellor & Vice-chancellor office	300	33	3	3	3	3	3	3	3	3	3	2	2
	Confidential Room	120	13	1	1	1	1	1	1	1	1	1	1	1
	Reception Lounge	60	7	1	1	1	1	1	1	1	1	1	0	0
	Committee/ Syndicate Rooms	200	22	2	2	2	2	2	2	2	2	2	1	1
	Accounts Block	2500	275	28	28	28	28	28	28	28	28	28	14	14
	Total (a)	10680												
b.	Amenities Area													
	Central Library	1750	193	19	19	19	19	19	19	19	19	19	10	10
	Auditorium	2000	220	22	22	22	22	22	22	22	22	22	11	11
	Computer Centre	1000	110	11	11	11	11	11	11	11	11	11	6	6
	Indoor Sports Centre	1500	165	17	17	17	17	17	17	17	17	17	8	8
	Outdoor Sports Centre	5000	550	55	55	55	55	55	55	55	55	55	28	28
	Seminar & Meeting Halls	1200	132	13	13	13	13	13	13	13	13	13	7	7
	Exhibition Hall & Galleries	1500	165	17	17	17	17	17	17	17	17	17	8	8
	Canteen	500	55	6	6	6	6	6	6	6	6	6	3	3
	Car & Scooter Parking Stand	1000	50	5	5	5	5	5	5	5	5	5	3	3
	Total (b)	15450												
c.	Residential Area													
	Chancellor/Vice-chancellor Residence	700	77	8	8	8	8	8	8	8	8	8	4	4
	Visitor & Nominees	500	55	6	6	6	6	6	6	6	6	6	3	3
	Faculty	42000	4620	462	462	462	462	462	462	462	462	462	231	231
	Essential Support Staff	32000	3520	352	352	352	352	352	352	352	352	352	176	176
	Guest House & MDP House for 60 Candi	2000	220	22	22	22	22	22	22	22	22	22	11	11
	Hostels(4000 Double seater)	34000	3740	374	374	374	374	374	374	374	374	374	187	187
	International Hostel (1000 Single Occu)	17000	1870	187	187	187	187	187	187	187	187	187	94	94
	Total (c)	128200												
	Total	154330	16916	1692	1692	1692	1692	1692	1692	1692	1692	1692	846	846



1 Schools of Philosophy and Buddhist Studies

Academic & Instructional Areas:

Lecture Rooms	864	86	9	9	9	9	9	9	9	9	9	4	4
12 Nos. of 60 students each													
Tutorials Rooms	360	36	4	4	4	4	4	4	4	4	4	2	2
20 Nos. of 15 students each													
Seminar Room (2 Nos)	400	40	4	4	4	4	4	4	4	4	4	2	2
Liabrary	250	25	3	3	3	3	3	3	3	3	3	1	1
Academic Block (Faculty Room/Common	900	90	9	9	9	9	9	9	9	9	9	5	5
Meditation Lab	200	22	2	2	2	2	2	2	2	2	2	1	1
Computer Centre cum cyber café	400	40	4	4	4	4	4	4	4	4	4	2	2
Administrative Area	100	10	1	1	1	1	1	1	1	1	1	1	1
Dean Office	100	10	1	1	1	1	1	1	1	1	1	1	1
Confidential Room	80	8	1	1	1	1	1	1	1	1	1	0	0
Reception Lounge	50	5	1	1	1	1	1	1	1	1	1	0	0
Committee/Syndicate Room	200	20	2	2	2	2	2	2	2	2	2	1	1
<i>Amenities Area</i>												0	0
Common Room for Students (3 Nos.)	240	24	2	2	2	2	2	2	2	2	2	1	1
Toilet Block	150	15	2	2	2	2	2	2	2	2	2	1	1
Cafeteria	100	10	1	1	1	1	1	1	1	1	1	1	1
Total (a)	4394	441	44	44	44	44	44	44	44	44	44	22	22

2 School of Information & Communication Technology

Academic & Instructional Areas:

Lecture Rooms 30 Nos. of 60 students each	2160	216	22	22	22	22	22	22	22	22	22	22	11	11
Tutorials Rooms 60 Nos. of 15 students each	1080	108	11	11	11	11	11	11	11	11	11	11	5	5
Drawing Halls (2 Nos.)	300	30	3	3	3	3	3	3	3	3	3	3	2	2
Computer Centre/Server Room	200	20	2	2	2	2	2	2	2	2	2	2	1	1
Seminar Room (3 Nos)	450	45	5	5	5	5	5	5	5	5	5	5	2	2
Liabrary	300	30	3	3	3	3	3	3	3	3	3	3	2	2
Academic Block (Falculty Room/Common	2100	210	21	21	21	21	21	21	21	21	21	21	11	11
Laboratories (Physics,Chemistry,Bio-tech	4000	440	44	44	44	44	44	44	44	44	44	44	22	22
Workshop	500	50	5	5	5	5	5	5	5	5	5	5	3	3
Cyber Café	200	20	2	2	2	2	2	2	2	2	2	2	1	1
Administrative Area	150	15	2	2	2	2	2	2	2	2	2	2	1	1
Dean Office	100	10	1	1	1	1	1	1	1	1	1	1	1	1
Confidential Room	80	8	1	1	1	1	1	1	1	1	1	1	0	0
Reception Lounge	50	5	1	1	1	1	1	1	1	1	1	1	0	0
Committee/Syndicate Room	200	20	2	2	2	2	2	2	2	2	2	2	1	1
<i>Amenities Area</i>														
Common Room for Students (4 Nos.)	240	24	2	2	2	2	2	2	2	2	2	2	1	1
Toilet Block	150	15	2	2	2	2	2	2	2	2	2	2	1	1
Cafeteria	100	10	1	1	1	1	1	1	1	1	1	1	1	1
Total (b)	12360	1276	128	128	128	128	128	128	128	128	128	128	64	64



3 School of International Studies

Academic & Instructional Areas:

Lecture Rooms	288	29	3	3	3	3	3	3	3	3	3	1	1
4 Nos. of 60 students each													
Tutorials Rooms	288	29	3	3	3	3	3	3	3	3	3	1	1
16 Nos. of 15 students each													
Seminar Room (2 Nos)	300	30	3	3	3	3	3	3	3	3	3	2	2
Liabrary	200	20	2	2	2	2	2	2	2	2	2	1	1
Academic Block (Faculty Room/Common	885	89	9	9	9	9	9	9	9	9	9	4	4
Computer Centre cum cyber café	150	15	2	2	2	2	2	2	2	2	2	1	1
Administrative Block	150	15	2	2	2	2	2	2	2	2	2	1	1
Dean Office	100	10	1	1	1	1	1	1	1	1	1	1	1
Confidential Room	80	8	1	1	1	1	1	1	1	1	1	1	1
Reception Lounge	50	5	1	1	1	1	1	1	1	1	1	0	0
Committee/Syndicate Room	100	10	1	1	1	1	1	1	1	1	1	0	0
<i>Amenities Area</i>													
Common Room for Students (3 Nos.)	180	18	2	2	2	2	2	2	2	2	2	1	1
Toilet Block	100	10	1	1	1	1	1	1	1	1	1	1	1
Cafeteria	100	10	1	1	1	1	1	1	1	1	1	1	1
Total ©			1	1	1	1	1	1	1	1	1	1	1
	2971	297	30	30	30	30	30	30	30	30	30	15	15



4 School of Basic and Applied Sciences
 Academic & Instructional Areas:

Lecture Rooms 10Nos. of 60 students each	720	72	7	7	7	7	7	7	7	7	7	4	4
Tutorials Rooms 20 Nos. of 15 students each	360	36	4	4	4	4	4	4	4	4	4	2	2
Computer Centre/Server Room (1 Nos.)	100	10	1	1	1	1	1	1	1	1	1	0	0
Seminar Room (3 Nos)	300	30	3	3	3	3	3	3	3	3	3	2	2
Liabrary	200	20	2	2	2	2	2	2	2	2	2	1	1
Academic Block (Falculty Room)	1320	132	13	13	13	13	13	13	13	13	13	7	7
Laboratories (Physics,Chemistry,Bio-tech)	1400	140	14	14	14	14	14	14	14	14	14	7	7
Cyber Café	150	15	2	2	2	2	2	2	2	2	2	1	1
Administrative area	200	20	2	2	2	2	2	2	2	2	2	1	1
Dean Office	100	10	1	1	1	1	1	1	1	1	1	1	1
Confidential Room	80	8	1	1	1	1	1	1	1	1	1	0	0
Reception Lounge	50	5	1	1	1	1	1	1	1	1	1	0	0
Committee/Syndicate Room	150	15	2	2	2	2	2	2	2	2	2	1	1
Amenities Area													
Common Room for Students (2 Nos.)	240	24	2	2	2	2	2	2	2	2	2	1	1
Toilet Block	100	10	1	1	1	1	1	1	1	1	1	1	1
Cafeteria	100	10	1	1	1	1	1	1	1	1	1	1	1
	5570	557	56	56	56	56	56	56	56	56	56	28	28



5 School of Natural Resource Management & Emerging Technology

Academic & Instructional Areas:

Lecture Rooms	2448	245	24	24	24	24	24	24	24	24	24	12	12
34 Nos. of 60 students each													
Tutorials Rooms	1224	122	12	12	12	12	12	12	12	12	12	6	6
68 Nos. of 15 students each													
Drawing Halls (2 Nos.)	300	30	3	3	3	3	3	3	3	3	3	2	2
Computer Centre/Server Room	200	20	2	2	2	2	2	2	2	2	2	1	1
Seminar Room (3 Nos)	600	60	6	6	6	6	6	6	6	6	6	3	3
Liabrary	300	30	3	3	3	3	3	3	3	3	3	2	2
Academic Block (Falculty Room/Common)	2580	258	26	26	26	26	26	26	26	26	26	13	13
Laboratories (Bio-tech, Food Tech etc.)	4500	450	45	45	45	45	45	45	45	45	45	23	23
Workshop	500	50	5	5	5	5	5	5	5	5	5	3	3
Cyber Café	150	15	2	2	2	2	2	2	2	2	2	1	1
Administrative Area	150	15	2	2	2	2	2	2	2	2	2	1	1
Dean Office	100	10	1	1	1	1	1	1	1	1	1	1	1
Confidential Room	80	8	1	1	1	1	1	1	1	1	1	0	0
Reception Lounge	50	5	1	1	1	1	1	1	1	1	1	0	0
Committee/Syndicate Room	300	30	3	3	3	3	3	3	3	3	3	2	2
<i>Amenities Area</i>													
Common Room for Students (4 Nos.)	240	24	2	2	2	2	2	2	2	2	2	1	1
Toilet Block	150	15	2	2	2	2	2	2	2	2	2	1	1
Cafeteria	150	15	2	2	2	2	2	2	2	2	2	1	1
	14022	1402	140	140	140	140	140	140	140	140	140	70	70



6 School of Development Studies

Academic & Instructional Areas:

Lecture Rooms	720	72	7	7	7	7	7	7	7	7	7	4	4
10 Nos. of 60 students each													
Tutorials Rooms	1440	144	14	14	14	14	14	14	14	14	14	7	7
20 Nos. of 15 students each													
Server Room /Computer Centre	200	20	2	2	2	2	2	2	2	2	2	1	1
Seminar Room (2 Nos)	350	35	4	4	4	4	4	4	4	4	4	2	2
Liabrary	300	30	3	3	3	3	3	3	3	3	3	2	2
Academic Block (Faculty Room/Common	1095	110	11	11	11	11	11	11	11	11	11	5	5
Laboratories	800	80	8	8	8	8	8	8	8	8	8	4	4
Cyber Café	150	15	2	2	2	2	2	2	2	2	2	1	1
Administrative Block	100	10	1	1	1	1	1	1	1	1	1	1	1
Dean Office	100	10	1	1	1	1	1	1	1	1	1	1	1
Confidential Room	80	8	1	1	1	1	1	1	1	1	1	0	0
Reception Lounge	50	5	1	1	1	1	1	1	1	1	1	0	0
Committee/Syndicate Room	150	15	2	2	2	2	2	2	2	2	2	1	1
<i>Amenities Area</i>													
Common Room for Students (2 Nos.)	120	12	1	1	1	1	1	1	1	1	1	1	1
Toilet Block	100	10	1	1	1	1	1	1	1	1	1	1	1
Cafeteria/shop	100	10	1	1	1	1	1	1	1	1	1	1	1
	5855	586	59	59	59	59	59	59	59	59	59	29	29



7 School of Languages

Academic & Instructional Areas:

Lecture Rooms	504	50	5	5	5	5	5	5	5	5	5	5	3	3
7 Nos. of 60 students each													5	5
Tutorials Rooms	1080	108	11	11	11	11	11	11	11	11	11	11	5	5
15 Nos. of 15 students each													2	2
Seminar Room (2 Nos)	350	35	4	4	4	4	4	4	4	4	4	4	2	2
Liabrary	300	30	3	3	3	3	3	3	3	3	3	3	2	2
Academic Block (Faculty Room/Common	1095	110	11	11	11	11	11	11	11	11	11	11	5	5
Laboratory (Media/Communication)	750	75	8	8	8	8	8	8	8	8	8	8	4	4
Computer Centre cum cyber café	100	10	1	1	1	1	1	1	1	1	1	1	1	1
Administrative Block	80	8	1	1	1	1	1	1	1	1	1	1	0	0
Dean Office	100	10	1	1	1	1	1	1	1	1	1	1	1	1
Confidential Room	80	8	1	1	1	1	1	1	1	1	1	1	0	0
Reception Lounge	50	5	1	1	1	1	1	1	1	1	1	1	0	0
Committee/Syndicate Room	150	15	2	2	2	2	2	2	2	2	2	2	1	1
<i>Amenities Area</i>														
Common Room for Students (4 Nos.)	120	12	1	1	1	1	1	1	1	1	1	1	1	1
Toilet Block	100	10	1	1	1	1	1	1	1	1	1	1	1	1
Cafeteria/Shop	100	10	1	1	1	1	1	1	1	1	1	1	1	1
	4959	496	50	50	50	50	50	50	50	50	50	50	25	25

Grand Total (Sq. mt.)	204461	21971	2197	2197	2197	2197	2197	2197	2197	2197	2197	2197	1099	1099
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Schools of Learning proposed in the subsequent phases of Establishment of the University

Description of Schools	Proposed area (Sq.mt.)	Cost of Bldg. (Rs. in Lakhs)
School of Medical Technology, and Paramedical and Health Sceinces	30000	6000
School of Legal Studies & Jurisprudence	5000	800
School of Folk and Performance & Fine Art	6500	1040
Centre for Knowledge Management	8000	1280
Centre for Education Technology	7500	1200
Total (Sq.mt.)	57000	5700

COST ESTIMATES OF LAND & SITE DEVELOPMENT

(Rupees in Lacs)

Sr. No.	Particulars	Total Amount (Rs. Lakhs)	Year Wise Phasing										
			(-1)	0	1	2	3	4	5	6	7	8	9
a.	Cost of 1000 acres of Land*	2000	200	200	200	200	200	200	200	200	200	100	100
b.	Cost of leveling & development of land	475	48	48	48	48	48	48	48	48	48	24	24
c.	Cost of laying internal roads	400	40	40	40	40	40	40	40	40	40	20	20
d.	Cost of fencing/compound wall	400	40	40	40	40	40	40	40	40	40	20	20
e.	Cost of External Development	300	30	30	30	30	30	30	30	30	30	15	15
Total Cost of Land & Site Development		3575	358	358	358	358	358	358	358	358	358	179	179

*Presently the Government of Bihar has allocated 600 acres of land for the University, Rajgir Village, it is expected that with complete establishment -1000 acres of land will be made available. The estimates are assumed for the full fledged establishment of the University.

Schedule 3

ESTIMATE OF PRELIMINARY & PRE-OPERATIVE EXPENSES

S.No	Particulars	Amount				
		Year- (-1)	Year-0	Year-1	Year-2	Year-3
Preliminary Expenses						
a.	Drafting of Document etc.	15	10			
b.	Project & Feasibility Report	20	0			
c.	Other Initial Expenses	10	5			
<i>Pre-Operative Expenses</i>						
a.	Establishment Expenses	90	100			
b.	Rent, Rates and taxes	20	25			
c.	Travelling & Conveyance	20	50			
d.	Inspection, Certification, NOC Charges	10	20			
e.	Interest & Commitment Charge	0	0			
f.	Bank Charges for issuance of Performance B. G.	0	0			
g.	Insurance during construction	20	20			
h.	Legal Exp.	15	20			
I.	Advertisement & Publicity	10	90			
j.	Misc. Expenses	20	50			
Total		250	390	0	0	0

FACULTY PLAN FOR THE SCHOOLS OF LEARNING

Schools of Learning/ Year	Program	Phase I					Phase II				
		1	2	3	4	5	6	7	8	9	10
1 Schools of Philosophy and Buddhist Studies											
(a) Oriental Philosophy	PG Integ. Prgm.	20	40	60	80	100	100	100	100	100	100
(b) Western Philosophy	PG Integ. Prgm.	20	40	60	80	100	100	100	100	100	100
(c) Buddhist and contemporary Religion	PG Integ. Prgm.	20	40	60	80	100	100	100	100	100	100
	MA - 2 Year	60	120	120	120	120	120	120	120	120	120
	PhD	5	10	15	20	25	30	30	30	30	30
Students		125	250	315	380	445	450	450	450	450	450
Total Faculty		13	25	32	38	45	45	45	45	45	45
a. Professor		2	4	5	6	7	7	7	7	7	7
b. Associate Professor		4	8	10	12	14	14	14	14	14	14
c. Assistant Professor		7	13	17	20	24	24	24	24	24	24
2 School of Information & Communication Technology											
(a) Computer Science and Engineering	PG Integ. Prgm.	60	120	180	240	300	300	300	300	300	300
(b) Electronics and Communication	PG Integ. Prgm.	60	120	180	240	300	300	300	300	300	300
(c) Information Technology	PG Integ. Prgm.	60	120	180	240	300	300	300	300	300	300
(d) Electrical Engineering	PG Integ. Prgm.	60	120	180	240	300	300	300	300	300	300
	M.Tech 2 Year Du	80	160	160	160	160	160	160	160	160	160
	PhD	20	25	30	35	40	40	40	40	40	40
Students		340	665	910	1155	1400	1400	1400	1400	1400	1400
Total Faculty		34	67	91	116	140	140	140	140	140	140
a. Professor		5	10	13	17	20	20	20	20	20	20
b. Associate Professor		10	20	26	34	40	40	40	40	40	40
c. Assistant Professor		19	37	52	65	80	80	80	80	80	80
3 School of International Studies											
(a) International Relations & Diplomacy	PG Integ. Prgm.	40	80	120	160	200	200	200	200	200	200
(b) International Trade & Agreements	PG Integ. Prgm.	40	80	120	160	200	200	200	200	200	200
	MA 2 Year Durati	40	80	80	80	120	160	160	160	160	160
	PhD	5	10	15	20	25	30	30	30	30	30
Students		125	250	335	420	545	590	590	590	590	590
a. Professor		18	36	48	60	78	85	85	85	85	85
b. Associate Professor		36	72	96	120	156	170	170	170	170	170
c. Assistant Professor		71	142	191	240	311	335	335	335	335	335



4 School of Basic and Applied Sciences		13	25	34	42	55	59	59	59	59
(a) Physics	PG Integ. Prgm.	20	40	60	80	100	100	100	100	100
(b) Chemistry	PG Integ. Prgm.	20	40	60	80	100	100	100	100	100
(c) Maths	PG Integ. Prgm.	20	40	60	80	100	100	100	100	100
(d) Life Sciences(Bio Technology)	PG Integ. Prgm.	60	120	180	240	300	300	300	300	300
	MSc 2 Year Durati	80	160	160	160	160	160	160	160	160
	Mtech 2 Year Dur	20	40	40	40	60	80	80	80	80
	PhD	10	15	20	30	40	40	40	40	40
Students		230	455	580	710	860	880	880	880	880
a. Professor		33	65	83	102	123	126	126	126	126
b. Associate Professor		66	130	166	204	246	252	252	252	252
c. Assistant Professor		131	260	331	404	491	502	502	502	502
5 School of Natural Resource Management & Emerging Technologies		23	46	58	71	86	88	88	88	88
(a) Post Harvest Technology	M.Tech 5 Yr	40	80	120	160	240	240	240	240	240
(b) Agro Forestry	M.Tech 5 Yr	40	80	120	160	240	240	240	240	240
(c) Food Technology	M.Tech 5 Yr	40	80	120	160	240	240	240	240	240
(d) Biodiversity & Bio-agriculture	M.Tech 5 Yr	40	80	120	160	240	240	240	240	240
(e) Soil Conservation	M.Tech 5 Yr						40	80	120	160
(f) Water Resource Management	M.Tech 5 Yr						40	80	120	160
	M.Tech 2 Yr	80	160	160	160	160	160	160	160	160
	PhD	5	10	15	20	25	30	30	30	30
Students		268	536	713	891	1231	1318	1398	1478	1558
a. Professor		39	77	102	128	176	189	200	212	223
b. Associate Professor		78	154	204	256	352	378	400	424	446
c. Assistant Professor		151	305	407	507	703	751	798	842	889
6 School of Development Studies		27	54	72	90	124	132	140	148	156
(a) Development Economics	MA 2 Yr						20	40	40	40
(b) Social Works & Development	MA 2 Yr						20	40	40	40
(c) Mangement Studies	MBA 2 Yr	60	120	120	180	240	240	300	360	360
(d) Developmental Geography & Regional Stduies	MA 2 Yr						20	40	40	40
	Ph.D			5	10	15	20	25	30	30
Students		60	120	125	190	255	320	445	510	510
a. Professor		9	18	18	28	37	46	64	73	73
b. Associate Professor		18	36	36	56	74	92	128	146	146
c. Assistant Professor		33	66	71	106	144	182	253	291	291



7 School of Languages

(a) Chinese	MA 5 Yr	20	40	60	80	100				
(b) Japanese	MA 5 Yr	20	40	60	80	100				
(c) Tibetan	MA 5 Yr	20	40	60	80	100				
(d) German	MA 5 Yr	20	40	60	80	100				
(e) Korean	MA 5 Yr	20	40	60	80	100				
(e) French	MA 5 Yr	20	40	60	80	100				
Diploma	1 Yr	50	100	100	100	100				
	Ph.D	5	10	15	20	25				
Students		175	350	475	600	725				
a. Professor		25	50	68	86	104				
b. Associate Professor		50	100	136	172	208				
c. Assistant Professor		100	200	271	342	413				

Total	1137	2205	2902	3605	4530	4862	5117	5322	5527	5812
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Total Number of Faculty	114	221	291	361	453	487	512	533	553	582
a. Professor	17	32	42	52	65	70	74	77	79	84
b. Associate Professor	34	64	84	104	130	140	148	154	158	168
c. Assistant Professor	63	125	165	205	258	277	290	302	316	330

Schedule 5

DETAILS OF EQUIPMENTS & TEACHING AIDS

(Rupees in Lakhs)

Sr. No.	Particulars	Year-wise Phasing										Total Rupee Cost	
		(-1)	0	1	2	3	4	5	6	7	8		9
1.	School of Philosophy & Buddhist Studies												
	Lab Equipment Philosophy		30	30	20	20	10	10	10	10	10	10	160
	Add. Cost of Spares, Installation and other incidental expenses @15% of Cost		5	5	3	3	2	2	2	2	2	2	24
	Miscellaneous Expenditure		13	25	32	38	45	45	45	45	45	45	377
	Sub Total (1)		47	60	55	61	56	57	57	57	57	57	561
2.	School of Information & Communication Technology												
a.	Lab Equipment (Comp Sc.)		125	140	110	100	80	70	50	50	50	50	825
b.	Lab Equipment (Electronic & Commu)		125	140	110	100	90	60	60	50	50	50	835
c.	Lab Equipment (Info Tech)		125	140	110	100	90	60	50	40	40	40	795
d.	Lab Equipment (Electrical Engineering)		140	140	125	120	80	80	75	75	70	60	965
	Sub Total(a-d)		515	560	455	420	340	270	235	215	210	200	3420
	Add. Cost of Spares, Installation and other incidental expenses @15% of Cost		77	84	68	63	51	41	35	32	32	30	513
	Miscellaneous Expenditure		34	67	91	116	140	140	140	140	140	140	1147
	Sub Total (2)		766	851	739	719	611	531	485	462	452	430	6045
3.	School of International Studies												
a.	Lab Equipments(International Relations)		40	45	40	30	30	30	25	25	20	20	305
b.	Lab Equipments(International Disputes)		40	45	40	30	30	30	25	25	20	20	305
	Sub Total(a-b)		80	90	80	60	60	60	50	50	40	40	610
	Add. Cost of Spares, Installation and other incidental expenses @15% of Cost		12	14	12	9	9	9	8	8	6	6	92
	Miscellaneous Expenditure		13	25	34	42	55	59	59	59	59	59	463
	Sub Total (3)		145	174	166	141	154	158	142	142	125	125	1469

4. School of Basic and Applied Sciences

a. Lab Equipment (Physics)	100	100	100	90	90	90	80	80	70	70	870
b. Lab Equipment (Bio-tech)	120	140	140	100	100	90	80	80	80	80	1010
c. Lab Equipment (Chem)	100	100	100	90	80	80	50	50	60	50	760
d. Lab Equipment (Mathematics)	30	30	25	20	20	15	10	10	10	10	180
Sub Total(a-d)	350	370	365	300	290	275	220	220	220	210	2820
Add. Cost of Spares, Installation and other incidental expenses @15% of Cost	53	56	55	45	44	41	33	33	33	32	423
Miscellaneous Expenditure	23	46	58	71	86	88	88	88	88	88	724
Sub Total (4)	456	501	503	436	440	419	351	351	351	340	4147

5. School of Natural Resource Management & Emerging Technology

a. Lab Equipment (Post harvest)						150	150	120	120	120	660
b. Lab Equipment (Agro Forestry)						140	140	120	120	120	640
c. Lab Equipment (Food Tech)	200	200	220	170	170	170	180	180	180	180	1850
d. Lab Equipment (Biodiversity-Bioagriculture)	150	150	100	100	100	120	100	90	90	90	1090
e. Lab Equipment (Soil Conservation)						150	150	100	100	100	600
f. Lab Equipment (Water Resource Management)						120	120	100	100	100	540
Sub Total(a-f)	350	350	320	270	270	560	550	470	470	470	4080
Add. Cost of Spares, Installation and other incidental expenses @12% of Cost	53	53	48	41	41	84	83	71	71	71	612
Miscellaneous Expenditure	27	54	71	89	123	132	140	148	156	172	1111
Sub Total (5)	429	456	439	400	434	896	892	788	796	812	6343

6. School of Development Studies

a. Lab Equipment (Development Eco)						40	40	40	20	10	150
b. Lab Equipment (Social Works)						20	20	20	20	20	100
c. Lab Equipment (Management Studies)	100	100	100	80	80	20	20	15	15	15	85
d. Lab Equipment (Development Geog & Reg Studies)						70	70	60	60	60	780
Sub Total(a-f)	100	100	100	80	80	100	90	90	70	70	420
Add. Cost of Spares, Installation and other incidental expenses @12% of Cost	15	15	15	12	12	210	200	185	165	165	1385
Miscellaneous Expenditure	6	12	13	19	26	32	45	51	51	51	305
Sub Total (6)	121	127	128	111	118	374	365	354	311	311	2317



7. School of Languages												
a. Media Lab	50	50	30	25	20	20	20	20	15	15	265	
b. Add. Cost of Spares, Installation and other incidental expenses @12% of Cost	8	8	5	4	3	3	3	3	2	2	40	
c. Miscellaneous Expenditure	0	0	0	0	0	18	35	48	60	73	233	
Sub Total(7)	58	58	35	29	23	41	58	71	77	90	537	
8. Other(s)												
a. Learning Research Centre with Books	150	200	200	170	150	100	100	70	70	70	1280	
b. Audio Media Facility						100	80	80	60	60	380	
c. Comp.Centre Equipment in Software	100	100	75	75	70	70	60	60	50	50	710	
d. Air-Conditioners	100	120	120	100	80	70	70	50	40	20	770	
e. Electric Power Station &DG Set (University core)	120	100	80	60	60	60	40	30	20	20	590	
Sub Total (a-d)	470	520	475	405	360	400	350	290	240	220	3730	
f. Add. Cost of Spares, Installation and other incidental expenses @15% of Cost	71	78	71	61	54	60	53	44	36	33	560	
g. Miscellaneous Expenditure	6	11	15	18	23	24	26	27	28	29	29	
h. Electric Power & related Phy. Facilities (includ. Infra) (Peripheral/ Township services of the University)	250	250	250	250	250	250	150	150	100	100	2000	
Sub Total (8)	796	859	811	734	687	734	578	510	404	382	6495	
Grand Total (Rs. in Lakhs)	2817	3084	2874	2630	2521	3208	2927	2734	2572	2546	27913	

Particulars	Nos.	Total Pay per ann (Rs. in lakhs)	Amount (Rs. in Lakhs) for the years									
			1	2	3	4	5	6	7	8	9	10
1. Schools of Philosophy and Buddhist Studies												
Dean	1	5.29	5	5	5	5	5	5	5	5	5	5
Professors	5	4.34	1	1	1	1	1	1	1	1	1	1
Associate Professor	13	3.18	2	2	2	2	2	2	2	2	2	2
Assitant Professor	29	2.12	2	2	2	2	2	2	2	2	2	2
2. School of Information & Comm. Tech.												
Dean	1	5.29	5	5	5	5	5	5	5	5	5	5
Professors	8	4.34	4	13	22	26	26	26	30	30	35	35
Associate Professor	17	3.18	6	19	32	35	38	41	41	48	51	54
Assitant Professor	51	2.12	11	38	64	72	76	80	85	93	104	108
3. School of International Studies												
Dean	1	5.29	5	5	5	5	5	5	5	5	5	5
Professors	8	4.34	9	17	22	22	22	26	26	30	35	35
Associate Professor	16	3.18	13	25	32	35	35	35	38	44	51	51
Assitant Professor	47	2.12	23	49	66	68	68	72	74	89	99	99
4. School of Basic & Applied Sciences												
Dean	1	5.29	5	5	5	5	5	5	5	5	5	5
Professors	26	4.34	9	22	35	48	52	56	69	82	100	113
Associate Professor	51	3.18	16	29	51	70	76	86	102	121	146	162
Assitant Professor	154	2.12	30	59	102	138	152	169	203	243	292	326
5. School of Natural Resource Management												
Dean	1	5.29	5	5	5	5	5	5	5	5	5	5
Professors	5	4.34	0	4	4	9	13	13	17	22	22	22
Associate Professor	11	3.18	3	6	10	16	19	22	25	32	35	35
Assitant Professor	33	2.12	4	11	19	30	38	42	53	64	70	70
6. School of Development Studies												
Dean	1	5.29	0	0	0	0	0	0	5	5	5	5
Professors	4	4.34	0	0	0	0	0	0	4	13	17	17
Associate Professor	8	3.18	0	0	0	0	0	0	10	16	22	25
Assitant Professor	25	2.12	0	0	0	0	0	0	17	32	47	53
7. School of Languages												
Dean	1	5.29	0	0	0	0	0	0	5	5	5	5
Professors	4	4.34	0	0	0	0	0	0	4	13	15	17
Associate Professor	9	3.18	0	0	0	0	0	0	10	16	22	29
Assitant Professor	26	2.12	0	0	0	0	0	0	17	34	44	55
Total (Teaching Staff)	557		177	369	535	650	719	782	963	1166	1368	1467

ESTIMATED COST OF FACULTY & STAFF - NON-TEACHING STAFF

Particulars	Nos.	Total Pay per ann. (Rs. Lakhs)	Amount (Rs. in Lakhs) for the years									
			1	2	3	4	5	6	7	8	9	10
Vice Chancellor	1	7.06	7	7	7	7	7	7	7	7	7	7
Pro Vice Chancellor	1	6.17	6	6	6	6	6	6	6	6	6	6
Librarian	1	4.34	4	4	4	4	4	4	4	4	4	4
Estate Manager	1	4.34	4	4	4	4	4	4	4	4	4	4
Registrar & Manager (P& A)	2	4.34	9	9	9	9	9	9	9	9	9	9
Finance Officer	1	4.34	4	4	4	4	4	4	4	4	4	4
Controller of Examination	1	4.34	4	4	4	4	4	4	4	4	4	4
Sr. Administrative Officer	1	3.78	4	4	4	4	4	4	4	4	4	4
Co-ordinator (T& P), (MIS), (Staff Devlop)	3	3.78	11	11	11	11	11	11	11	11	11	11
Chief Tech Officer/Chief Acc. Officer	2	3.78	8	8	8	8	8	8	8	8	8	8
Chief Medical Officer	1	3.78	0	0	0	0	4	4	4	4	4	4
Administrative Officer	2	3.18	6	6	6	6	6	6	6	6	6	6
Resident Engineer & Workshop Suprinder	2	3.18	6	6	6	6	6	6	6	6	6	6
Technology Officer/Sr. Acct Off/Sys Mana	9	3.18	10	10	10	16	16	16	22	22	29	29
Senior Medical Officer	1	3.18	0	0	3	3	3	3	3	3	3	3
Deputy Registrar	7	3.18	16	16	16	16	16	16	22	22	22	22
Deputy Librarian	2	2.12	2	2	2	2	2	4	4	4	4	4
Asstt. Engineer & Workshop Suprinder	2	2.12	4	4	4	4	4	4	4	4	4	4
Asstt. Administrative Officer	8	2.12	8	8	8	8	13	13	13	17	17	17
Student Counsellor/PRO/Senior PTI	3	2.12	6	6	6	6	6	6	6	6	6	6
Asst. Tech Officer/Sr. Acct Off/Sys Mana	14	2.12	8	13	17	17	17	21	21	25	25	30
Medical Officer/Nutiorist	2	2.12	4	4	4	4	4	4	4	4	4	4
Research Associates	7	2.12	11	11	11	11	11	11	15	15	15	15
Assistant Registrar	14	2.12	21	21	21	21	21	21	30	30	30	30
Manager Guest House/Security Officer	2	2.12	4	4	4	4	4	4	4	4	4	4
Foreman/Jr Engineer	8	1.76	4	7	7	7	11	11	11	14	14	14
Senior Technical Asstt.	9	1.76	5	5	5	5	11	11	11	16	16	16
Office Superintendent	6	1.76	4	4	5	5	7	7	9	9	11	11
Asstt. Foreman	8	1.50	3	6	6	6	9	9	9	12	12	12
Junior Technical Asstt.	18	1.50	9	9	9	9	18	18	18	27	27	27
Jr. Office Superintendent	12	1.50	3	6	9	9	12	12	15	15	15	18
Senior Assitant/Accountant/Editor	12	1.50	9	12	12	13	13	15	15	16	18	18
Professional Asstt.	10	1.50	1	3	4	6	7	9	10	12	13	15
Assistan Librarian	8	1.41	8	8	8	8	8	8	11	11	11	11
PA to Senior Officials	8	1.32	1	1	1	1	8	8	11	11	11	11
Senior Mechanic & Lab Assitant	26	1.06	4	7	11	14	17	21	28	28	28	28
Sr. Clerical & Personal Assistant, Steno	20	1.06	5	7	10	12	14	16	18	19	20	21
Junior Assistants/Accountant/Editor	20	1.06	10	12	13	15	15	16	16	18	19	21
Jr. Professional Asstt.	20	1.06	2	4	6	8	11	13	15	17	19	21
Nursing Staff	4	1.06	1	1	1	2	2	2	2	3	3	4
Store Keeper/Material Handling Asstt.	10	1.06	5	6	7	8	10	11	11	11	11	11
Mechnaics(Electrician, Plumber, Carpenter)	15	0.88	4	6	8	9	10	11	11	13	13	13
Junior Mechanic & Lab Assitant	32	0.79	6	9	11	13	17	20	25	25	25	25

Clerical & Personal Assistant, Steno	30	0.79	6	8	10	12	13	16	17	20	21	24
Draftsman/Tracer	2	0.79	1	1	1	1	2	2	2	2	2	2
Caretaker	7	0.79	2	2	2	2	3	3	3	6	.6	6
Drivers	13	0.71	3	4	4	5	6	6	7	8	8	9
Peons	20	0.53	5	6	7	8	10	11	11	11	11	11
Total Non-Teaching Staff	408		273	309	341	369	428	456	513	559	576	594
Total (University Staff & Teaching)	965		450	678	875	1019	1147	1238	1476	1725	1944	2061
Fees from academic activity & Other Income			174	363	563	649	787	901	1132	1392	1658	1855
Total Revenue (Rs. in Lakhs)			174	363	563	649	787	901	1132	1392	1658	1855



Schedule 7

(Amount Rs. in Lakhs)

SUMMARY OF THE ESTIMATED COST

Description	Rupee Cost (in Lakhs)	Total Cost (Rs. in Lakhs)	Year Wise Phasing											
			0	1	2	3	4	5	6	7	8	9	10	
1 Land & Site Development	3575	3575	358	358	358	358	358	358	358	358	358	358	179	179
2 Building and Civil Works (Phase I of University physical infrastructure)	21971	21971	2197	2197	2197	2197	2197	2197	2197	2197	2197	2197	1099	1099
3 Building & Civil Works (Phase II of University physical infrastructure)	5700	5700												
4 Equipment & Teaching Aids Books etc.	27913	27913	0	2817	3084	2874	2630	2521	3208	2927	2734	2572	2546	
5 Preliminary & Pre-operative Exp.	640	640	250	390										
6 Miscellaneous Expenditure (Township & Related activities*)	3000	3000	750	750	750	750								
Total Project Cost (Rs. in Lakhs)	62799	62799	3555	6512	6389	6179	5184	5075	5763	5482	5289	3849	3823	

Total estimated cost for Infrastructure of the Nalanda University is rounded of to Rs. 630.00 Crores.

Phasing for the Phase II of the Schools of Learning has not be proposed in this, with the setting up of the University, the scope of academic activity may be decided by the Academic Council.

School(s) of Learning	Program	Student Intake Plan (Numbers)									
		Phase I			Phase II						
		1	2	3	4	5	6	7	8	9	10
1. School of Philosophy and Buddhist Studies											
(a) Oriental Philosophy	PG Integrated Program	20	40	60	80	100	100	100	100	100	100
(b) Western Philosophy	PG Integrated Program	20	40	60	80	100	100	100	100	100	100
(c) Buddhist and Contemporary Religion	PG Integrated Program	20	40	60	80	100	100	100	100	100	100
	MA 2 Year Duration	60	120	120	120	120	120	120	120	120	120
	PhD	5	10	15	20	25	30	30	30	30	30
Total (A)		125	250	315	380	445	450	450	450	450	450
2. School of Information & Communication Technology											
(a) Computer Science and Engineering	PG Integrated Program	60	120	180	240	300	300	300	300	300	300
(b) Electronics and Communication	PG Integrated Program	60	120	180	240	300	300	300	300	300	300
(c) Information Technology	PG Integrated Program	60	120	180	240	300	300	300	300	300	300
(d) Electrical Engineering	PG Integrated Program	60	120	180	240	300	300	300	300	300	300
	MTech 2 Year Duration	80	160	160	160	160	160	160	160	160	160
	PhD	20	25	30	35	40	40	40	40	40	40
Total (B)		340	665	910	1155	1400	1400	1400	1400	1400	1400
3. School of International Studies											
(a) International Relations & Diplomacy	PG Integrated Program	40	80	120	160	200	200	200	200	200	200
(b) International Trade & Agreements	PG Integrated Program	40	80	120	160	200	200	200	200	200	200
	MA 2 Year Duration	40	80	80	80	120	160	160	160	160	160
	PhD	5	10	15	20	25	30	30	30	30	30
Total (C)		125	250	335	420	545	590	590	590	590	590
4. School of Basic and Applied Sciences											
(a) Physics	PG Integrated Program	20	40	60	80	100	100	100	100	100	100
(b) Chemistry	PG Integrated Program	20	40	60	80	100	100	100	100	100	100
(c) Maths	PG Integrated Program	20	40	60	80	100	100	100	100	100	100
(d) Life Sciences (Bio Technology)	PG Integrated Program	60	120	180	240	300	300	300	300	300	300
	MSc 2 Year Duration	80	160	160	160	160	160	160	160	160	160
	MTech 2 Year Duration	20	40	40	40	60	80	80	80	80	80
	PhD	10	15	20	30	40	40	40	40	40	40
Total (D)		230	455	580	710	860	880	880	880	880	880

5. School of Natural Resource Management

(a) Post Harvest Technology	MTech 5 Yr	40	80	120	160	240	240	240	240	240	240
(b) Agro Forestry	MTech 5 Yr	40	80	120	160	240	240	240	240	240	240
(c) Food Technology	MTech 5 Yr	40	80	120	160	240	240	240	240	240	240
(d) Biodiversity & Bio-agriculture	MTech 5 Yr	40	80	120	160	240	240	240	240	240	240
(e) Soil Conservation	MTech 5 Yr						40	80	120	160	240
(f) Water Resource Management	MTech 5 Yr						40	80	120	160	240
	MTech 2 Yr	80	160	160	160	160	160	160	160	160	160
	PhD	5	10	15	20	25	30	30	30	30	30
Total (E)		245	490	655	820	1145	1230	1310	1390	1470	1630

6. School of Development Studies

(a) Development Economics	MA 2 Yr						20	40	40	40	40
(b) Social Works & Development	MA 2 Yr						20	40	40	40	40
(c) Mangement Studies	MBA 2 Yr	60	120	120	180	240	240	300	360	360	360
(d) Developmental Geography & Regional Stduies	MA 2 Yr						20	40	40	40	40
	PhD			5	10	15	20	25	30	30	30
Total (F)		60	120	125	190	255	320	445	510	510	510

7. School of Languages

(a) Chinese	BA 3 Yr						20	40	60	60	60
(b) Japanese	BA 3 Yr						20	40	60	60	60
(c) Tibetan	BA 3 Yr						20	40	60	60	60
(d) German	BA 3 Yr						20	40	60	60	60
(e) Korean	BA 3 Yr						20	40	60	60	60
(e) French	BA 3 Yr						20	40	60	60	60
Diploma	1 Yr						50	100	100	100	100
	PhD						5	10	15	20	25
Total (G)							175	350	475	480	485

Grand Total (Student Intake)

1114	2159	2844	3534	4444	4774	5029	5234	5319	5484
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* Rest of the Schools of Learning is proposed during the Phase II of Establishment of infrastructure

- (i) School of Health Sciences & Medical Technology, (ii) Legal Studies & Governance (iii) Folk Art, Performnace & Fine Art
 (iv) Centres of Knowledge Management and (v) Educational Technology

RECURRING EXPENDITURE

Particulars/Years	Amount (Rs. in Lakhs) for the years									
	1	2	3	4	5	6	7	8	9	10
Salary Teaching	195	406	588	716	790	860	1059	1283	1505	1614
Salary Non-teaching	273	309	341	369	428	456	513	559	576	594
Departmental Educational Expenses	22	43	57	71	89	95	100	102	105	110
Other educational Expenses	22	43	57	71	89	95	100	102	105	110
General Expenses	22	43	57	71	89	95	100	102	105	110
Miscellaneous Expenses	602	1167	1537	1911	2402	2565	2687	2766	2845	2967
Total Recurring Expenses	1137	2011	2637	3207	3888	4167	4558	4914	5242	5504

Assumptions:

1. The Departmental Expenditure has been assumed to be Rs. 2000 per student per annum
2. The Other educational expenses has been assumed to be Rs. 2000 per student per annum
3. The general expenses has been assumed to be Rs. 2000 per student per annum
4. The miscellaneous expenses has been assumed to be Rs. 27000 per student per annum

