Report on

The System of Education in India

Nordic Recognition Information Centres • October 2006

THE SYSTEM OF EDUCATION IN INDIA

Introduction

Background to the Study Tour

The tasks of the ENIC/NARIC offices in Denmark, Sweden and Norway include work on issues related to education from India. All three offices receive applications and questions concerning recognition of education from the country both from institutions, representatives from the labour market and other stakeholders. The number of applications and enquiries are growing. All three countries have relatively large populations of persons of Indian origin settled in their countries, Denmark about 4,300, Norway 7,000 and Sweden 13,600 (2005).

A need to learn more about the country and especially the system of education has been felt for some time. The most important motivation for a study tour was to facilitate the work of giving advice concerning education from India and daily credential evaluation work. In addition to this, the Nordic ENIC/NARIC offices wished to achieve closer future contact and cooperation with different educational organisations in India.

The visit was planned and implemented in cooperation with the Norwegian Embassy in India, the Nordic Center, both located in New Delhi, and the National Accreditation and Assessment Council (NAAC) in Bangalore. The main focus was to gather information about the educational system in the country; the financing of education, information about public and private education and how they are governed; how the authorities plan and implement quality assurance work (QA), and how the institutions deal with these challenges. Information about future plans for education in India was also of great interest.

The delegation visited the University Grants Commission (UGC), the National Accreditation and Assessment Council (NAAC), the Central Board of Secondary Education (CBSE), the All India Council for Technical Education (AICTE), the Association of India Universities (AIU) and the National Council for Teacher Education (NCTE) as well as various institutions of higher education. The first two organizations mentioned are responsible for the higher education sector while the rest of the boards and councils organise and work with the development and maintenance of intermediate and secondary education, technical education and teacher education.

The study tour was planned as a joint visit by the ENIC/NARIC offices in Denmark, Sweden and Norway to both India and Pakistan from 24 September to 6 October 2005. The delegation consisted of 8 representatives.

Report Structure

The report is based on information and impressions which the delegation obtained during the study tour. Information was also gathered from sources such as the websites of the organisations and institutions visited and from agencies including the National Office of Overseas Skills Recognition (NOOSR) in Australia, World Education Services (WES) in the USA, IAU and UNESCO/IAU among others. At several places in the text, sources have been specifically mentioned. An additional list of sources can be found in the appendices.

The report describes the system of education in India and the quality assurance system. Chapter 1 introduces the administration of the school system and the organisation of primary, secondary and higher secondary education, while Chapter 2 provides information about technical and vocational education. Chapter 3 outlines the system of higher education by reviewing the institutional structure with a discussion of both public and private education. Information on degree structure and grading systems is included, as well as examples of some bachelor degree programmes.

In Chapter 4, teacher training at higher secondary level and at university level is described. Chapter 5 presents India's response to globalisation in the higher education sector. The last chapter deals with the quality assurance work in education, both at secondary and higher level. Impressions and reflections about the education system and how it functions are incorporated into the report in frames where appropriate.

Country Profile

India is one of the world's oldest civilisations, dating back to 2,500 B.C. Aryan tribes from the northwest invaded the country in about 1,500 B.C.; their merger with the earlier Dravidian inhabitants created the classical Indian culture. Arab incursion starting in the eighth century and Turkish in the twelfth century were followed by those of European traders, beginning in the late fifteenth century. By the nineteenth century, Great Britain had assumed political control of virtually all Indian lands. Mohandas Gandhi and Jawaharlal Nehru helped end British colonialism through non-violent resistance. India achieved independence in 1947.

The Republic of India was established in 1947 and comprises 32 states and Union Territories, the latter controlled by the central government. The country covers about 3.3 million square kilometres with a population of 1.029 billion and dominates southern Asia. It is slightly larger than one-third the size of the United States. India is home to 17% of the world's total population, accommodated in an area that is 2.4% of the world's total area.

India has the world's twelfth largest economy and the third largest in Asia behind Japan and China, with a total GDP of around $570 billion. Services, industry and agriculture account for 50.7%, 26.6% and 22.7% of GDP respectively. The United States is India's largest trading partner. Bilateral trade in 2003 was $18.1 billion.

There are some 16 official major languages and 844 dialects. Among these languages, English enjoys associate status, but is the most important language for national, political, and commercial communication. Hindi is the national language and primary tongue of 30% of the people. The other official languages are Bengali, Telugu, Marathi, Tamil, Urdu, Gujarati, Malayalam, Kannada, Oriya, Punjabi, Assamese, Kashmiri, Sindhi, and Sanskrit. Hindustani is a popular variant of Hindi/Urdu spoken widely throughout northern India but is not an official language.

Hinduism (80.5%), Islam (13.4%), Christianity (2.3%), Sikh (1.9%) are the major religions in the country. The literacy rate is 52% (of the total population of age 15 or older).

Chapter 1 General Education

Administration of Education

The central and the state governments have joint responsibility for education, with freedom for the state governments to organise education within the national framework of education.

Educational policy planning is under the overall charge of the central Ministry of Human Resource Development which includes the Department of Elementary Education and Literacy and the Department of Secondary and Higher Education. The Ministry is guided by the Central Advisory Board of Education (CABE) which is the national level advisory body. The education ministers of all the different states are members of the board.

The National Council of Education Research and Training (NCERT) (1961) defines the National Frame Curriculum for classes I - XII. It also functions as a resource centre in the field of school development and teacher education. State Councils of Educational Research and Training (SCERT) are the principal research and development institutions in all the states.

At secondary level, school boards at state level affiliate schools and set examination standards in accordance with the national framework. The Central Board of Secondary Education (CBSE) and Council for Indian School Certificate Examinations (CISCE) cover all India besides the National Institute of Open Schooling (NIOS).

National Policy on General Education
Under the national constitution, education was a state matter until 1976. The central government could only provide guidance to the states on policy issues. In 1976 the constitution was amended to include education on the concurrent list.

The initial attempts of designing a National Education Policy were made in 1968 but it was only in 1986 that India as a whole had a uniform National Policy on Education.

The National Policy on Education 1986, modified in 1992, defines the major goals for elementary education as universal access and enrolment, universal retention of children up to 14 years and substantial improvement in the quality of education. The National Policy of Education of 1992 also aims at vocationalisation of secondary education and greater use of educational technology.

The policy has been accompanied by several programmes such as the District Primary Education Program (DPEP) launched in 1994 and the National Campaign for Education for All (Sarva Shiksha Abhiyan) launched in 2001/2. A proposed bill on the right to education (draft, November 2005) stresses the right of all children from age 6 until their 15th birthday to receive elementary education either in school or non-formal education (NFE).

The Indian government is preparing the universalisation of secondary education (USE). The main aim is to provide high quality secondary education to all Indian adolescents up to the age of 16 by 2015, and senior secondary education up to the age of 18 by 2020.

Crucial problems in India are teacher absenteeism, noted by UNESCO in 2005; high teacher-pupil ratios; and inadequate teaching materials and facilities, particularly in rural areas.

At the other end of the scale, children attending urban schools, especially middle and upper class children in private schools, are subjected to extreme competition from a very early age in order to qualify for admission into the best schools.

In 1979-80, the Government of India, Department of Education launched a programme of *Non-Formal Education* (NFE) for children of 6-14 years age group, who cannot join regular schools - drop-outs, working children, children from areas without easy access to schools etc. The initial focus of the scheme was on ten educationally backward states. Later, it was extended to urban slums, and hilly, tribal and desert areas in other states.

Source:
- UNESCO: India, updated August 2003 and Annual Report 2004/5, Ministry of Human Resource Development, India (overview).
- Newsletter, October-December 2005, International Institute for Educational Planning, UNESCO.
Learning without Burden, NCERT, 1993, reprinted 2004.
- Annual report 2004/5, Ministry of Human Resource Development, India (annexes).

School Education

A uniform structure of school education, the 10+2 system, has been adopted by all the states and Union Territories (UTs) of India following the National Policy on Education of 1986.

Elementary school, Class I – VIII, is recognised as the period of compulsory schooling, with the Constitutional amendment making education a fundamental right. A majority of the states and Union Territories (UTs) have introduced free education in classesI-XII. In states/UTs where education is not free for classes IX and above, the annual fee varies considerably.

The pre-school covers two to three years. The elementary stage consists of a primary stage comprising Classes I-V (in some states I-IV), followed by a middle stage of education comprising Classes VI -VIII (in some states V-VIII or VI -VII). The minimum age for admission to Class I of the primary school is generally 5+ or 6+. The secondary stage consists of Classes IX-X (in some states VIII-X), and a senior secondary stage of schooling comprising classes XI-XII in all states. In some states/UTs these classes are attached to universities/colleges. The number of working days of school education in a year is generally more than 200 days in all the states/UTs.

Participation in primary and secondary education
The Gross Enrolment Ratio (GER), which indicates the number of children actually enrolled in elementary schools as a proportion of child population in the 6-14 years age group, has increased progressively since 1950-51, rising from 32.1% to 82.5% in 2002-03, according to statistics published by the Ministry of Human Resource Development in India.

The rate of increase in GER of girls has been higher than that of boys. The dropout rate at the primary level (Classes I-V) declined from 39% in 2001-02 to 34.9% in 2002-03. However the GER only covers 61% of children from classes VI to VIII.

In 2002/3 the dropout rate was estimated at 34.9% at the end of lower primary classes and 52.8% at the end of upper primary. The dropout rate was 62.6% at the end of secondary school (Class X). There are wide disparities among the different states in the number of children completing primary and secondary school from less than 20% to more than 80%, according to the central statistics from the Ministry of Human Resource Development.

Source
- Selected Educational Statistics 2002-03. Provisional. Ministry of Human Resource Development, India
- Annual Report 2004/5. Ministry of Human Resource Development, India
- Secondary Education. Department of Secondary and Higher Education, Ministry of Human Resource Development, India (information on the Department's website)

National Curricula

The National Council of Education Research and Training (NCERT) formulated the first Curriculum Framework in 1975 as a recommendation to the individual states. NCERT was accorded the responsibility of developing a binding National Curriculum Framework through the National Policy on Education (NPE) (1986).

NCERT reviews the curriculum every five years on the basis of consultations within the whole school sector. The core areas of the curriculum are common. Teaching of English is usually compulsory in classes VI-X in most of the states/UTs.

NCERT published a New National Curriculum framework in 2005. The New National Curriculum will be introduced in textbooks in three phases:
Phase one, 2006-07: classes I, III, VI, IX and XI.
Phase two, 2007-08: classes II, IV, VII, X and XII
Phase three, 2008-09: classes V and VIII

NCERT has gradually been changing the curriculum from traditional information provision to be more learner-oriented and competence-based.

National Curriculum Framework 2000
The National Curriculum Framework 2000 operates with the concept of the *Minimum Levels of Learning* (MLLs) identifying certain essential levels of learning for each stage of school education.

Pre-primary education
The National Policy on Education defines the objective of early childhood care and education (ECCE) as being the total development of children in the age group 0-6 years. Early Childhood Education (ECE) or pre-primary education (2 years), part of the ECCE, shall prepare children for school.

Teaching at this stage, according to the National Curriculum Framework, comprises group activities, play–way techniques, language games, number games and activities directed at promoting socialisation and environmental awareness among children. Formal teaching of subjects and reading and writing are prohibited. However, NCERT strongly criticised the actual pre-school programmes for exposing children to structured formal learning, often in

English with tests and homework, in the introductory notes to the new National Curriculum Framework 2005.

The competition for the best education starts at a very early age. Newspapers from September 2005 in India report of tremendous pressure on three-year old children being prepared by their parents for nursery interviews and competing with a huge number of other children for places in the most prestigious private pre-schools. The newspapers report on private persons/institutes that offer help to parents in preparing their children for nursery interviews. Other newspapers report the need for psychological support for children having developed speaking difficulties after having been exposed to onerous preparation by their parents for nursery interviews.

Primary education

At the primary stage, emphasis is on the process of understanding, thinking and internalising. The National Curriculum contains the following subjects:

Subject	**Lower primary Classes I-II**	**Lower primary Classes III-V**	**Upper primary Classes VI-VIII**
Language(s)	The mother tongue/regional language	The mother tongue/regional language	Three Languages — the mother tongue/the regional language, a modern Indian language and English
Art education	-	-	All kind of creative activities including the child's own creations
Mathematics	Woven around the world of the learner	Integrated approach	Essentials of mathematics for every day activities, including geometry
Art of healthy and productive living	Creative education, health and physical education, work education, value inculcation	Integrated approach to music, dance, drama, drawing and painting, puppetry, health and physical education, games and sports, yoga and productive work	-
Environmental studies	-	Experiences to help socio-emotional and cultural development with a realistic awareness and perception of phenomena occurring in the environment	-
Health and physical education	-	-	Games and sports, yoga, NCC and scouting and guiding
Science and technology	-	-	Key concepts across all the disciplines of science, local and global concerns
Social sciences	-	-	Social, political and economic situation of India and the world, including Indian cultural heritage. Academic skills social skills and civic competencies
Work education	-	-	Agricultural and technological processes including participation in work situation

Source: National Curriculum Framework 2000

In all language education programmes, the stress is placed on the ability to use the language in speech and in writing for academic purposes, at the workplace and in society in general.

The duration of a class period may be around 40 minutes and, according to NCERT, the school year should be a minimum of 180 days, and "…A primary school should function for five hours a day out of which four hours may be set aside for instruction. For the upper primary and secondary schools, the duration of a school day should be six hours out of which five hours should be kept for instruction and the rest for the other routine activities."

Secondary education (2 years, grades IX-X)
In grades IX-X the scheme of studies should include the following subjects: three languages (the mother tongue/the regional language, a modern Indian language and English), mathematics, science and technology, social sciences, work education, art education, health and physical education. Foreign languages such as Chinese, Japanese, Russian, French, German, Arabic, Persian and Spanish may be offered as additional options. The curriculum in mathematics should take into account both the learning requirement of learners who will leave school for working life, and of students who will pursue higher education.

According to the NECRT Secondary School Curriculum 2002-2004 (Vol. 1, Main Subjects) the suggested number of weekly periods per subject in grade X is as follows:

Subject	**Suggested number of periods in grade X**
Language I	7
Language II	6
Mathematics	7
Science and technology	9
Social science	9
Work education or pre-vocational education	3 + 2 to 6 periods outside school hours
Art education	2

The boards, however, according to NCERT, often offer limited or no optional courses: two languages (one of which is English), mathematics, science and social sciences are the typical examination subjects. A few boards encourage students to choose an optional course from a range that includes economics, music and cookery.

Higher secondary/Senior secondary education (2 years, grades XI–XII)
The curriculum at this stage is divided into an academic stream and a vocational stream.

Academic stream
The objectives of academic courses are to promote problem-solving abilities and convey higher levels of knowledge. The curriculum at this stage comprises foundation courses and elective courses. Foundation courses consist of (i) language and literature, (ii) work education, and (iii) health and physical education, games and sports.

The study of language prepares a student to both learn and use language in the classroom, the community and the workplace. The choice of the language to be studied is decided by the learner. Work education includes e.g. developmental projects in a village or city. Generic Vocational Courses (GVC) aim at developing employment-related generic skills regardless of the persons' occupations. The student should choose three elective courses out of the subjects

prescribed by the boards. Elective courses may include bridging courses between the academic and vocational streams.

The list of courses may include modern Indian languages, Sanskrit, classical European languages and their literatures, English (academic and specialised), other foreign languages, subjects in the sciences and mathematics, computer science, accountancy, business studies, engineering, political science, history, sociology, psychology, philosophy, fine arts and others.

NCERT prescribes that courses should be listed together without dividing them into mutually exclusive groups. Nonetheless, several boards restrict the combinations in the form of a 'science stream', 'arts stream' and 'commerce stream'. Some schools tailor their classes to medical and engineering courses. Universities restrict admissions based on the subjects and combinations of courses studied in the +2 stage. Sixty percent of the instructional time is devoted to the instruction of elective subjects and forty percent to the foundation course.

Vocational stream
The introduction of the vocational stream was recommended by the central Kothari Commission (1964-66). The National Policy on Education, 1986 (revised 1992) set a target of twenty-five percent of higher secondary students in vocational courses by 1995. So far, enrolment is far below this.

The courses for the vocational stream consist of:

- A language course
- A general foundation course
- Health and physical education, and
- Elective vocational courses

Vocational education covers areas like agriculture, engineering and technology (including information and communication technology), business and commerce, home science, health and para-medical services and humanities.

Language courses are organised to cover the grammatical structures and additional vocabulary particular to the trade or vocation. The general foundation course for the vocational stream comprises general studies, entrepreneurship development, environmental education, rural development and information and communication technology.

Vocational electives are organised according to employment opportunities. Practical training is an essential component of the vocational courses, according to the National Curriculum Framework, with seventy percent of time devoted to vocational courses.

The certificate issued should mention the competencies acquired and the credits earned.

Organisation
The organisation of teaching is based either on an annual or semester system. In most cases, a year’s course is divided into two parts to be covered in the two halves of an academic session in the annual system. Marks are accorded to a certain number of periods; the total mark is an average of marks accorded to the different parts of curriculum in an annual or semestrial examination (e.g. a paper corresponding to a 3-hour written examination).

The example below copied from the Senior School Curriculum 2007 (Central Board of Secondary Education) illustrates a typical curriculum (in history) and the maximum marks accorded to the different parts of the curriculum.

History/Class XI

Paper One Time: 3 Hours 100 Marks

Unit		Periods	Marks
	Part A - Ancient India		
1.	Introduction	8	
2.	Paleolithic Cultures and Beginning of settled Life	4	7
3.	Harappan Civilization	8	
4.	The Early Vedic Period	8	
5.	Later Vedic Phase and Iron Age	5	7
6.	South and North-East India	2	
7.	Religious traditions	10	5
8.	Mahajanapada	4	2
9.	Mauryas	10	
10.	Society, Economy and Culture during Mauryan period	6	9
11.	Post-Mauryan India	6	
12.	The age of India from Guptas and after	8	8
13.	The Society and Culture in the age of Guptas and Harsha	8	
.....	...	...	....
30.	Project Work		5
Total			100 marks

In the semester system, recommended by NCERT, students take a number of credit hours corresponding to their requirements and capacity, and at their own pace. However, only a few institutions have adopted the semester and credit system.

National Curriculum Framework 2005

The National Curriculum Framework 2005 points out the need for plurality and flexibility within education while maintaining the standards of education in order to cover a growing variety of children. The Framework recommends that learning shifts away from rote methods and that the curriculum reduces and updates textbooks. Peace education is included as a dimension in education. The new curriculum proposes a broader spectrum of optional subjects, including the revalorisation of vocational options. Courses may be designed to offer optional modules, rather than trying to cover everything and overfilling courses too much.

The National Curriculum Framework 2005 also proposes changes within the examination system (examinations for classes X and XII) allowing reasoning and creative abilities to replace memorisation. The children should be able to opt for different levels of attainment.

Textbooks

Most states have legislated to create bodies for the preparation of syllabi and textbooks. The states have established various mechanisms for the preparation and approval of textual materials.

However, a study in 2005, undertaken by the Central Advisory Board of Education (CABE), of textbooks used in government schools (not following the CBSE syllabus) and in non-government schools (including social and religious schools) showed that many textbooks reinforce inequalities and neglect rural, tribal or female realities.

According to NCERT' Newsletter, in 2005, CABE proposed the institution of a National Textbook Council to monitor textbooks.

Source:
- National Curriculum Framework 2000, National Council of Education Research and Training (NCERT), India
- National Curriculum Framework 2005, National Council of Education Research and Training (NCERT), India
- Newsletter July 2005, National Council of Education Research and Training (NCERT), India
- Senior School Curriculum 2007, Central Board of Secondary Education (CBSE), India, 2005

Examination and Assessment

In all the states and Union Territories, public examinations are conducted at the end of classes X and XII by the respective State Boards of Secondary and Higher Secondary Education.

Ministry of Human Resource Development has published a list of recognised state boards for secondary and higher secondary education.

The minimum age for admittance to the Secondary School Examination generally varies from 14+ to 16+. The minimum age for Higher Secondary School Examinations varies from 16+ to 18+ years. Some states/UTs do not have an age restriction.

The Central Board of Secondary Education (CBSE), established by a special resolution of the Government of India in 1929, prescribes examination conditions and the conduct of public examinations at the end of Standard X and XII.

The Council for the Indian School Certificate Examinations (CISCE), Delhi, was established in 1958 by the University of Cambridge, Local Examinations Syndicate as a self-financing national examination board. The Council conducts the Indian Certificate of Secondary Education (Standard X) and the Indian School Certificate (Standard XII) examinations. CISCE affiliates schools using English as a medium of instruction.

The title of the final qualification varies depending upon the examining body. The titles used by the central examining boards are:

CBSE:
- All India Secondary School Certificate (Standard X).
- All India Senior School Certificate (Standard XII).

CISCE:

- Indian Certificate of Secondary Education (ICSE Standard X).
- Indian School Certificate (ISC Standard XII).
- Certificate of Vocational Education (CVE XII).

Information from the procedure of the All India Senior School Certificate (Standard XII) (extract):

The Board conducts examination in all subjects except General Studies, Work Experience, Physical and Health Education, which will be assessed internally by the schools based on cumulative records of students periodical achievements and progress during the year.

In all subjects examined by the Board, a student will be given one paper each carrying 100 marks for 3 hours. However, in subjects requiring practical examination, there will be a theory paper and a practical examination as required in the syllabi and courses.

A candidate may offer an additional subject that can be either a language at elective level or another elective subject as prescribed in the Scheme of Studies, subject to the conditions laid down in the Pass Criteria.

A candidate will get the Pass Certificate of the Board, if he/she gets a grade higher than E in all subjects of internal assessment unless he/she is exempted. Failing this, result of the external examination will be withheld but not for a period of more than one year.

In order to be declared as having passed the examination, a candidate shall obtain a grade higher than E (i.e. at least 33% marks) in all the five subjects of external examination in the main or at the compartmental examinations.

The pass marks in each subject of external examination shall be 33%. In case of a subject involving practical work a candidate must obtain 33% marks in theory and 33% marks in practical separately in addition to 33% marks in aggregate in order to qualify in that subject.

A candidate failing in two of the five subjects of external examination shall be placed in compartment in those subjects provided he/she qualifies in all the subjects of internal assessment.
A candidate who has failed in the examination in the first attempt shall be required, to re-appear in all the subjects at the subsequent annual examination of the Board.

A candidate who has passed the Senior School Certificate Examination of the Board may offer an additional subject as a private candidate provided the additional subject is provided in the Scheme of Studies and is offered within six years of passing the examination of the Board.

A candidate who has passed an examination of the Board may reappear for improvement of performance in one or more subject(s) in the main examination in the succeeding year only; however, a candidate who has passed an examination of the Board under Vocational Scheme may reappear for improvement of performance in one or more subject{s) in the main examination in the succeeding year or in the following year provided he/she has not pursued higher studies in the mean time. He /she will appear as private candidate.

Candidates who appear for improvement of performance will be issued only Statement of Marks reflecting the marks of the main examination as well as those of the improvement examination.

Central Board of Secondary Education

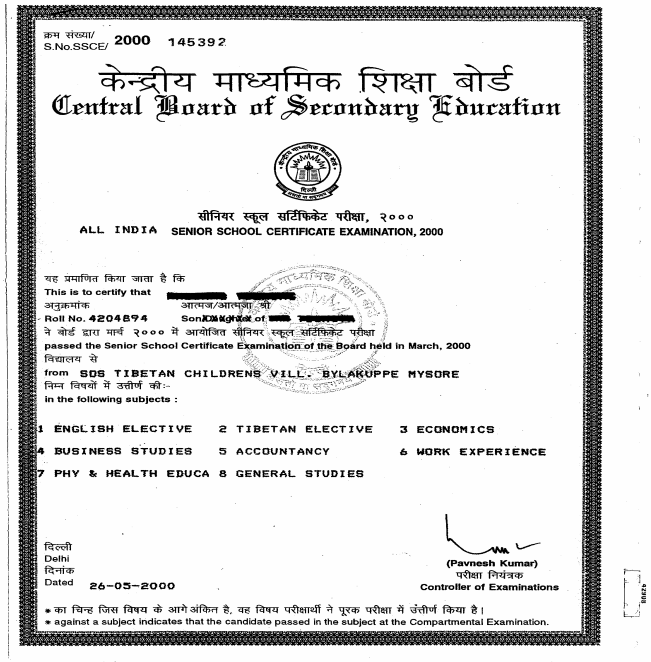
Central Board of Secondary Education (CBSE) is one of the three national boards of secondary education in India. CBSE has affiliated around 8,300 schools including government and independent

schools. It also affiliates schools in some 20 African and Asian countries. About 200 new schools are affiliated each year. Study teams conduct regular inspections of the affiliated institutions.

CBSE has a central office and 6 regional offices. Permanent affiliation is obtained after a number of years. Affiliation is granted according to strict criteria. A list of affiliated schools can be found on CBSE' s website: http://www.cbse.nic.in.

The major objective is to prescribe conditions of examinations and conduct public examinations at the end of Classes X and XII and to grant certificates to successful candidates of the affiliated schools. All affiliated schools follow the national scheme of 10+2.

Here is an example of testimonial for All India Senior School Certificate Examination from 2000:



क्रम संख्या/
S.No.SSCE/ 2000 145392

केन्द्रीय माध्यमिक शिक्षा बोर्ड
Central Board of Secondary Education

सीनियर स्कूल सर्टिफिकेट परीक्षा, २०००
ALL INDIA SENIOR SCHOOL CERTIFICATE EXAMINATION, 2000

यह प्रमाणित किया जाता है कि
This is to certify that [redacted]
अनुक्रमांक आत्मज/आत्मजा श्री
Roll No. 4204894 Son/Daughter of [redacted]
ने बोर्ड द्वारा मार्च २००० में आयोजित सीनियर स्कूल सर्टिफिकेट परीक्षा
passed the Senior School Certificate Examination of the Board held in March, 2000
विद्यालय से
from SOS TIBETAN CHILDRENS VILL. BYLAKUPPE MYSORE
निम्न विषयों में उत्तीर्ण की:-
in the following subjects :

1 ENGLISH ELECTIVE 2 TIBETAN ELECTIVE 3 ECONOMICS
4 BUSINESS STUDIES 5 ACCOUNTANCY 6 WORK EXPERIENCE
7 PHY & HEALTH EDUCA 8 GENERAL STUDIES

दिल्ली
Delhi
दिनांक
Dated 26-05-2000

(Pavnesh Kumar)
परीक्षा नियंत्रक
Controller of Examinations

* का चिन्ह जिस विषय के आगे अंकित है, वह विषय परीक्षार्थी ने पूरक परीक्षा में उत्तीर्ण किया है।
* against a subject indicates that the candidate passed in the subject at the Compartmental Examination.

CBSE is regulated but not financed by the central government. Financing is assured by fees from the affiliated schools. CBSE accepts private candidates. CBSE develops its curriculum on the basis of the national curriculum framework. The curriculum is revised every 5 to 10 years. Two of the front line curriculum subjects are revised every year.

According to CBSE, it strives notably to adapt current teaching methods and content of teaching to an innovative and creative society in the form of subjects such as functional English, bio-technology, entrepreneurship, life skills education, and disaster management. An important objective is the destressing of education, including no homework or examinations in grades I and II and only achievement reports in grades III-V.

Information technology is compulsory in grades IX +X. Language studies include a possible 27 different languages besides Hindi and English. One teacher may teach four subjects up to grade X.

The board uses the term learner (for student) with emphasis on the learner's role in learning. Two subjects undergo a performance analysis (marks, questions, learning) each year to cope with poor performance.

Examination is monitored and organised to avoid fraud. CBSE issues duplicates of certificates under certain conditions. CBSE also organises in-service training of teachers and special programmes for new principals.

Grading
Both Standard X and XII are normally marked on a percentage basis. The minimum pass-mark varies depending upon the subject. According to the UK NARIC, the following marking scheme is used in most states for the Standard XII examinations, in comparison with that used by the central boards.

Percentages	Performance assessment	CBSE	CISCE
85%+, 80-85%, 70-80%	Excellent, Superior, Very good	A1-A2, B1	One, two, three
60% - 70%	Good	B2	Four
50% - 60%	Satisfactory	C1	Five
40% - 50%	Average	C2	Six
35% - 40%	Pass	D	seven

Source: India, International Comparisons, UK NARIC

Documents
The pass-document is issued by the relevant Board of Secondary Education. It shows the type of programme (academic or vocational), the subjects passed and the marks obtained out of total marks as well as the aggregate marks, percentage obtained, and result as well as the overall grade/division.

National Institute of Open Schooling (NIOS)
National Institute of Open Schooling (previously known as the National Open School) was established in November 1989 as an autonomous registered society. The institute provides basic programs such as secondary education courses and senior secondary education courses on an open education basis.

NIOS conducts examinations twice a year and candidates can appear in one, two or more subjects. Credits are accumulated until the certification criteria are fulfilled. NIOS has at its disposal a network of accredited study centres all over India providing support to learners.

Source

- India, International Comparisons, UK NARIC (Website)
- Secondary Education. Department of Secondary and Higher Education, Ministry of Human Resource Development, India (information on the Department's website)

Islamic Education

India also has a system of Islamic education. Several different sects have their own schools where they teach Islamic subjects and Arabic to mainly (but not only) Muslim children. A Madrasas Modernization Programme was introduced in the National Policy on Education of 1986 and in the updated plan of 1992.

Some Indian states have established government Madrasas Education Boards with which madrasas can be affiliated. Selected madrasas receive government support to teach secular "modern" subjects such as science, mathematics, English and social sciences.

A number of Indian universities recognise credentials from certain madrasas thus enabling their graduates to continue to higher education. Students typically go on to study Arabic, Urdu, Persian and Islamic subjects but also other subjects.

Chapter 2 Vocational and Technical Education and Training

Education and Training of the Indian labour force

According to the report "Industrial Training Institutes of India: The efficiency study report" published by the International Labour Organisation (ILO) in 2003, the educational levels of the labour force in India are rather low. About 44% of all workers were illiterate, while 22.7% had completed primary school in 1999. About 33.2% of the labour force graduated from the middle school. This share is higher in urban areas, at 57.4%.

Only 5% of the young Indian labour force (20-24 years) had received formal vocational training compared to 60% to 80% in industrialised countries.

The ILO report characterises the technical education and vocational training system in India as a three-tier system:

- Certificate-level craftsmen and women trained in Industrial Training Institutes (ITIs)/Industrial Training Centres (ITCs) (craftsmen Training Scheme) as well as through formal apprenticeships as semi-skilled and skilled workers.
- Diploma-level graduates trained in polytechnics as technicians and supervisors.
- Graduate and post-graduate level specialists (e.g. ITIs, engineering colleges) trained as engineers and technologists.

As described already, higher secondary education incorporates a vocational stream.

There are around 17 ministries/departments that provide or finance vocational education and training programmes. Some of the courses are conducted in formal institutions with uniform curricula and prescribed examination standards while others are needs-based courses.

In India, technical education refers to the field of study rather than the level, so technical education includes disciplines such as engineering, management etc. at undergraduate and postgraduate level, as well as diploma programmes in technical fields. Vocational education normally refers to vocational programs at school and higher education level, while vocational training refers to trade/craft education.

This chapter describes vocational training and technical education at certificate craft and technician levels, while qualifications at graduate and post-graduate higher level are described in Chapter 3. Vocational education at secondary level is described in Chapter 1.

Policy and coordination
The Joint Council of Vocational Education (JCVE) is responsible for the overall co-ordination of all other bodies and departments concerned with vocational education. The State Council of Vocational Education (SCVE) is a body with similar functions to JCVE at the state level. The District Vocational Education Committees perform the function of local co-ordination.

The All India Council of Technical Education (AICTE) is a statutory body which regulates engineering and technology, management and technician education throughout the country at the national level. AICTE covers programmes of technical education including training and research in engineering, technology, architecture, town planning, management, pharmacy, applied arts and crafts, hotel management and catering technology etc. at different levels. However, most of the programmes accredited are at diploma or BTech/Bachelor level with few accredited programmes at technician level (polytechnics), see page xxxxx.

The National Council of Education Research and Training (NCERT) and many of the State Council of Education Research and Training (SCERT) have a division devoted to vocational education for research and development.

Training of school leavers at Grade VIII/plus

There are six ministries/departments offering programmes with a total annual training capacity of about 1,271,000. The Directorate General, Employment and Training (DGE&T), Ministry of Labour, supervises the biggest training system (about 60%) followed by the Ministry of Human Resource Development (HRD) with about 40%.

Annual vocational training capacity of ministries/departments in India

Ministry/Department	**Estimated training capacity/persons trained (annually)**
Min. Health and Family Welfare	
	20,000 persons
Min. Human Resource Development	
Vocationalization of Secondary Education	490,000 persons
Apprenticeship training	19,000 persons
National Institute of Open Schooling	7,000 persons
Dept Information technology	
DOEACC O-level	75,000 persons
Min. Labour (DGET)	
Apprenticeship Training Scheme	About 500,000 persons
Craftsmen Training Scheme	About 150,000 persons
Other long-term Training Scheme	7,000 persons
Dept Small Scale Industries	2,000 persons
Dept Tourism (Food Crafts Institutes)	1,000 persons
Total	1,270,000 persons

Source: ILO, 2003, page 7

Administration

Two tripartite bodies, the Central Apprenticeship Council (CAC), a statutory body, and the National Council of Vocational Training (NCVT), a non-statutory body, operate as advisory institutions. There is a proposal to merge NCVT and CAC into a new apex body by establishing an All India Council for Vocational Training.

The NCVT was set up by the Government of India in 1956. It is chaired by the Minister of Labour with members representing central and state government departments as well as the

labour market organisations, the professional bodies and the underprivileged castes and women in India.

NCVT awards National Trade Certificates in engineering, building, textile and leather trades and prescribes standards for syllabi, space, duration of courses and methods of training, recognises training institutions and organises trade tests. State Councils for Vocational Training (SCVTs) advise the state governments on training policy matters.

Source:
- Industrial Training Institutes of India: The efficiency study report. ILO, Geneva, 2003
Technician education, Department of Secondary and Higher Education, Ministry of Human Resource Development, India (information on the Department's website)

Principal Training Schemes

Craftsmen Training Scheme (CTS)
The Craftsmen Training Scheme (CTS) was introduced in 1950 by the Indian Government. The scheme is addressed at young people from 14 to 25 years old. The scheme takes place under the auspices of the Directorate of Vocational Education and Training (DVET) at state level.

CTS includes training programmes in around 49 engineering and 49 non-engineering trades. The period of training varies from 6 month to three years.

About 70% of the training period is practical training and the rest theoretical (trade theory, workshop calculation and science, engineering drawing, social studies including environmental science and family welfare).

National qualifications have been developed by NCVT and are periodically revised to keep pace with new technology in industry.

The qualifications mainly concern basic industrial trades. Non-engineering trades such as agro-processing, personal and community services, insurance and financial services in the fast growing sectors are not represented, according to the ILO report from 2003. ILO has pointed out that there are few national vocational qualifications available for women. However, women have a high participation in services sectors with few training possibilities.

Few states use the possibility to develop their own vocational qualifications and issue awards by the State Councils for Vocational Training (SCVTs) because those qualifications are not recognised nationally.

Training takes place at either central or state government Industrial Training Institutes (ITIs) or private Industrial Training Centres (ITCs) approved by the state government and affiliated to NCVT. There are about 4,650 public and private training institutes in India.

All India Trade Tests for Craftsmen are conducted by the DGE&T, Ministry of Labour, under the aegis of the National Council for Vocational Training in July (main) and January (supplementary) every year. Successful candidates are awarded the National Trade Certificate and classified as semi-skilled craftsmen.

A National Trade Certificate is a recognised qualification for recruitment to posts in Central/State Government establishments. The different Craftsmen Training Scheme programmes can be found on the website of the Directorate General of Employment and Training (DGE&T)/Ministry of Labour. Please see http://dget.nic.in/schemes/cts/welcome.htm

The Apprenticeship Training Scheme (ATS)
The Apprenticeship Training Scheme (ATS) is regulated under the Apprentices Act, 1961. Employers in specified industries shall engage apprentices at ratios prescribed for a designated trade. In 2002, the total apprentice capacity was nearly 216,000 with actual utilisation being around 155,000. The duration of training ranges from six months to four years.

The apprentices gain practical knowledge in shop floor training in industrial establishments and theoretical instructions in Government Related Instruction Centres.

An apprentice should be at least 14 years old. The minimum educational qualification is different for different trades. Currently, according to information on the website of the Ministry of Labour, there are 138 trades in 31 trade groups. Qualifications vary from Standard VIII pass to XII pass (10+2) system. Please see http://dget.nic.in/schemes/ats/welcome.htm

Apprentices may be so-called freshers (no previous vocational qualification) or graduates of a Craftsmen Training Scheme. Apprentices without a basic vocational qualification shall undergo basic training.

Basic training and related instructions are conducted in Basic Training Centres (BTCs) or Related Instruction Centres (RICs). The Industrial Training Institutes (ITIs) are also used as Basic Training Centres for the Apprenticeship Training programmes. A curriculum is prescribed for each trade.

Apprentices take the All India Trade Test of Apprentices conducted by the National Council of Vocational Training (NCVT). Successful apprentices are awarded the National Apprenticeship Certificate by the Central Apprenticeship Council and classified as skilled workers.

There are also Graduate Apprenticeships for engineering graduates and Technician Apprenticeships for diploma holders from polytechnics (established in 1974) and Technician (Vocational) Apprenticeships for the graduates of higher secondary vocational courses. There are 101 subject fields that have been designated for the category of Graduate & Technician apprenticeships. 94 subject fields have been designated for the category of Technician (Vocational) apprenticeships.

Crafts instructor training
There are six Central Training Institutes for training of Instructors under the Directorate General of Employment & Training (Ministry of Labour). These institutes conduct regular, refresher and retraining programs for the craft instructors in engineering and non-engineering trades. Please see the list at http://dget.nic.in/schemes/cits/welcome.htm.

Private industrial schools at state level

Private industrial schools function at state level. Training is offered in the areas such as catering, tailoring, computer software, beauty culture, and office automation, besides engineering and non-engineering trades. The training period varies from 45 days to two to three years. Candidates are admitted from 8th standard to Secondary School Leaving Certificate (SSLC) (passed/failed). Examination is conducted at state level and certificates are issued to the successful candidates by State Government.

Advanced vocational training scheme and Hitech scheme
In order to upgrade and update the skills of industrial workers, an Advanced Vocational Training Scheme (AVTS) was established in 1977 by DGE&T, Ministry of Labour in collaboration with United Nations Development Programme (UNDP)/ILO. The training scheme takes place at 6 Advanced Training Institutes (ATIs) under DGE&T and 16 Industrial Training Institutes (ITIs) of 15 State Governments.

The objective of the Hitech scheme is to produce trained personnel within electronics, computers and modern production systems.

Source:
- Information on the different schemes on the website of the Directorate General of Employment and Training (DGE&T) in the Ministry of Labour
- Industrial Training Institutes of India: The efficiency study report. ILO, Geneva, 2003

Technician Education

Polytechnics typically offer one to three year sub-degree diploma courses in all subjects except medicine. Polytechnics are widely spread over all the states and Union Territories and are affiliated to the respective State Boards of Technical Education. The latter set the levels and standards of the courses and organise the system of evaluation by examination. Currently there are over 1,200 polytechnics in India. Polytechnic diplomas are awarded by the State Boards.

Polytechnics in India are designed traditionally to focus on 'supervised technician' training programmes, although an increasing number of polytechnics have begun to offer courses leading to degrees. The training is mostly institutional (with some industrial experience), the curricula predominantly theory oriented, and the location mostly urban.

Most three- to four-year Diploma courses require a Standard X pass as the entry qualification, with the exception of Higher National Diploma courses that require Standard XII passes.

Polytechnics also provide Post-graduate Certificate/Diploma courses in various subjects on both full-time and part-time bases. Since course titles, duration and entry qualifications vary from state to state, care is needed in evaluating these types of credentials. AICTE is trying to streamline the nomenclature for this type of qualification.

Source:
- Technician education, Department of Secondary and Higher Education, Ministry of Human Resource Development, India (information on the Department's website)

Chapter 3 Higher Education

General characteristics

Higher education is on the concurrent list in the Indian constitution, meaning that it is a shared responsibility between the Union or Central Government and the State Governments. The Department of Secondary and Higher Education is placed within the Ministry of Human Resource Development. There is also a Department of Education in each state.

The Central Government is responsible for the major policy on higher education and for the co-ordination and determination of standards in higher education institutions. State Governments for their part are responsible for the establishment of state universities and colleges and for providing grants for their development and maintenance.

As mentioned in Chapter 1, the Central Advisory Board of Education (CABE) coordinates the work of the Union and the States in the field of education. The Union Government has established regulatory and statutory bodies to discharge their responsibilities. A list of these bodies and their mandates can be found in Appendix 1.

Higher education institutions are funded by the Central Government through the University Grants Commission (UGC), one of the statutory bodies, or by the State Governments. The UGC allocates and disburses maintenance and development grants to all Central universities and to all colleges affiliated to Delhi and Banaras Hindu University as well as to some nominated universities. Other institutions may receive support from different development schemes of the UGC.

State universities and colleges are funded by the respective states. There are also some other sources of funding. Self-financed or private universities are not common in India although many colleges are financed by non-governmental sources.

Only universities established or incorporated by or under a Central Act, Provincial Act or State Act, an institution deemed to be a University under Section 3 of the University Grants Commission Act or an institution specially empowered by an Act of Parliament have the right to confer degrees in India.

The University Grants Commission (UGC) specifies the nomenclature of degrees with the approval of the Central Government and publishes a list of all the degrees on the UGC's website. The list can be found in Appendix 2. The list is updated when necessary. Currently, the list contains more than 140 degrees. Some of these are oriental degrees, for example Shashtri (B.A.) and Shiksha Shashtri (B.Ed). The UGC also specifies the minimum standards for instruction; see Appendix 3. The relevant regulatory bodies prescribe the norms for the granting of degrees within their respective subject areas.

Education Reforms in the Recent Years

The policy of the government is to bring about improvement in information infrastructure and develop quality education through Information and Communication Technology (ICT) integration in the higher education institutions in the country.

The vocationalisation of undergraduate education has been on the agenda since the Eighth Plan of 1994/95 but it is still a burning question. The university sector is experiencing undue pressure on the system for postgraduate education. The UGC is therefore encouraging the introduction of skill-oriented courses at universities. This will enable the graduate to possess a basic degree as well as a professional qualification, thus hopefully making it easier to find employment in the wage sector or to go into self-employment.

The UGC only recently decided that students should be allowed to take two degrees or a degree and a certificate/diploma in parallel. They gave examples of such double degrees:
- a student may pursue a Bachelor's degree in history along with a diploma in tourism or science journalism.
According to the UGC, only the best students would be fit to take on this heavy burden of studying different subjects in parallel. The numbers would therefore be quite limited.
- Another possibility mentioned by the UGC is to continue from certificate to diploma and even up to bachelor level by adding an extra year of studies.

The UGC has introduced an introductory course on environmental studies that is compulsory for undergraduate courses of all branches. The UGC has also launched several other programmes in order to modernise the higher education sector.

For example, a custom nationwide communication network named UGC-Infonet has been set up. An E-Subscription initiative has also been set up to provide HE institutions with access to 9,000 journals with full text through gateway portal access. Furthermore, a Consortium of Education Communication has been established to provide education to students across the country via electronic media.

Framework of Higher Education

India has one of the largest education systems in the world and also one of the most complex. The European system of higher education was introduced in India by the British in 1857 with the establishment of universities for European education in three cities and withdrawal of support for indigenous education. At the time of independence, there were 20 universities and 500 colleges in India but the number has increased rapidly since then and the student enrolment has gone up by nearly 36 times.

The present-day educational structure in India consists of:

Central universities 18,
State universities 211,
Institutions deemed to be universities 99,
Institutions established under State Legislature Act 5,
Institutions of National Importance 13,

Colleges 17,625.

There are, in addition, 51 Academic Staff Colleges for academic training of teachers. These numbers are changing as new institutions are established; the number of colleges in particular is continuously growing.

The student population
The enrolment rate is 7% and a majority of the students, 89%, were enrolled at undergraduate level in the year 2003/04. 9% were enrolled at master level and less than 1% were doing research. Another 1% were on diploma or certificate courses.

Enrolment of students in higher education institutions was 9.6 million, closer to the GER of 9% during 2002-3. With 43,000 teachers and a pupil-teacher ratio of 22:1, the higher education sector in India is continuing to grow. Added to this is the 420,000 enrolment in polytechnic institutes and 760,000 enrolment in open universities, giving an approximate total enrolment of 11 million.

An additional 87,000 Indian students were studying in foreign universities in 2001-02 and around 8,000 international students, notably from Asia and Africa, were studying in Indian universities in 2002-03. 43% of all international tertiary level students in the OECD area are from Asia. Indian students constitute 4% of the group. Presently, international students from about 125 countries are pursuing various undergraduate, postgraduate and research programs in India at recognised universities and institutions.

In the year 2003/4, the distribution across faculties was:

- 45% of students enrolled in arts faculties,
- 20% of students enrolled in science faculties,
- 18% of students enrolled in faculties of commerce/management,
- 17% of students enrolled in professional faculties.

This is also reflected in the conditions of admission; it is relatively easy to gain admission to non-professional colleges (except for some selected colleges in large cities), while it is much more difficult to get a place at a professional college, e.g. in medicine, engineering, pharmacy etc. Admission to professional colleges is generally based on separate admission tests. The fees charged differ between subjects. Accordingly, it is more costly to study in a professional college.

Institutional Structure

Under the constitutional provision, central and state governments establish multi-faculty conventional universities. These are of both unitary and affiliating types. Nearly 50% of universities in India belong to this category.

There are also professional universities such as technical, medical, law and agricultural universities. These are established by state governments and are also of unitary and affiliating types. The third category is open universities established by central and state governments. These offer open and flexible education through distance learning using correspondence courses/modern educational technology such as interactive TV, etc.

Deemed to be Universities
Section 3 of the UGC Act provides that an institution of higher education, other than a university, which is doing work of a very high standard in a specific area can be declared as an institution deemed to be a university. The practice of establishing 'deemed to be universities' in the private/joint sector began in 1986. The University Grants Commission (UGC) has the power to recommend that an institution should have the status of a 'deemed to be a university'. The Central Government makes the decision. Such institutions enjoy the academic status and privileges of a university and are able to strengthen activities in the field of their specialisation, rather than becoming a multi-faculty university of the general type. A 'deemed to be university' can not have affiliated colleges.

Apart from Universities and Deemed to be Universities, there are also some institutions offering professional Under Graduate (UG), Post Graduate (PG) and research programmes established as Centres of Excellence, some by an Act of Parliament, such as the Indian Institute of Technology (IIT) and others by the Central Government such as the National Law Institutes, National Institute of Design, Indian Institute of Management, National Institute of Fashion Technology, etc.

Affiliated Colleges
Affiliated colleges can be either publicly funded (governmental colleges), partly funded by the government or private self-financed colleges. They are affiliated to a university. Most affiliated colleges offer first-degree courses, but some are approved by the university to offer postgraduate courses as well. The university prescribes the curricula, controls the examinations and awards the degrees. The role of the colleges is to prepare students for the examinations of the university. For example, Hindu College in New Delhi, one of 80 affiliated colleges to Delhi University, is regulated under the Act of the University:

> *"(a) College means an institution maintained or admitted to its privileges by the University and includes an Affiliated College and a Constituent College;*
>
> *Explanation I. ´Affiliated College´ means an institution recognised by the University in accordance with the provisions of this Act and the Statutes in which instruction is provided in accordance with the provisions of the Statutes and Ordinances up to the Bachelor`s degree, but exclusive of Honours and Post-graduate degrees;"*

Constituent Colleges
During the 1950s a distinction developed between constituent and affiliated colleges. Constituent colleges were normally situated on or closer to the university campus. They generally have a stronger association with the university than the more remote affiliated colleges, and are generally regarded as offering a more consistent standard of education than in the affiliated system.

Autonomous Colleges
Autonomous colleges are a recent development. The system of autonomous colleges was introduced in the early 1980s. They aim for higher standards and greater creativity than the affiliated colleges. The University Grants Commission's (UGC) National Policy on Education (NPE) 1992 says about autonomous colleges: "The objective of granting autonomy to certain

colleges is to provide academic freedom, especially in designing their curricula; evolving new methods of teaching, research and learning; framing rules for admission; prescribing courses of study; setting examination papers and conducting examinations."

The autonomous colleges are still part of a university but have some autonomy in determining curricula, teaching methods and assessment as mentioned above. An autonomous college has its own Governing Body, academic council and a Board of Studies for each subject. Their degrees are awarded by the parent university with the name of the college mentioned on the diploma. The scheme of marks is issued by the college.

According to UGC guidelines, the right of autonomy is not conferred indefinitely. The right must be continually assessed and earned. In 1999 there were a total number of 123 autonomous colleges affiliated to 28 universities spread over eight states.

Autonomous status enables the colleges to offer more postgraduate diplomas using the faculty and facilities already available. According to one institution quoted in the Pier World Education Series on India, an advantage of autonomous status is: "After introduction of autonomy, we are able to observe a tremendous boost in the morale of the students and an improvement in their performances, both in curricular as well as extra-curricular activities."

Many autonomous colleges, at least at the postgraduate level, have changed their academic calendar to the semester system, and the grading pattern has changed from the percentage of marks system to letter grades.

Every college in India is affiliated to a university; either as an affiliated college, a constituent college or an autonomous college. The UG C tends to prefer the development of autonomous colleges.

Higher education outside the university sector
Institutions outside the purview of the universities can award other types of qualifications that might be recognised for employment or for further studies at universities.

The Association of Indian Universities (AIU) is an inter-university organisation with the aim to share information and facilitate co-ordination between Indian universities as well as between universities and the government. AIU maintains a list of institutions whose postgraduate diplomas in management have been equated with an MBA degree. This list contains 32 institutions and includes, among others, the prestigious Indian Institutes of Management.

The AIU examines proposals received from institutions that have been approved by the All India Council for Technical Education (AICTE) and grant them academic equivalence. According to their yearbook for the year 2004, 4 institutions were considered. Of these, 3 were granted equivalence after inspection by the AIU visiting Committee.

Higher education is also carried out at different professional institutions in the fields of accounting, engineering and computer science.

Some courses are offered by universities as well as by other institutions outside the university system. An example is within architecture where the degree Bachelor of Architecture is given

by universities and the Diploma of Architecture by other providers than those within the university sector.

Private Higher Education Institutions

A bill on the establishing of private universities, The Private Universities (Establishment and Regulation) Bill, was introduced in the Rajya Sabha (Council of States) of the Indian Parliament in 1995. The bill is still pending. Some states have introduced laws on private universities and there are a handful of private universities in India. A law in the state of Chhattisgarh opened up for the mushrooming of private universities in that state but that particular law has been overruled by the Indian Supreme Court and the universities have thereby been declared illegal.

India offers a typical example of how private initiatives come to be encouraged in developing countries. When the country became independent in 1947, there was a dearth of educated and skilled workers to undertake the massive nation-building activities and the national government virtually "nationalised" all the then existing private higher education institutions and commenced funding them directly. These institutions have come to be known as grant-in-aid institutions as against government-run public universities and colleges.

By the late 1980s, the number of colleges increased from 500 to about 5,000. By then, the resources of the government reached their limit and most of the state governments were forced to stop establishing or funding new colleges. Therefore, the government encouraged the private initiatives without any commitment for financial support, with a stipulation that they should function under the academic regulations of the universities in that area. This resulted in the emergence of a new category of private institutions which are run with student fees without financial support from the government.

According to WES, this new crop of private initiatives locally called "self-financing" institutions now outnumber the public ones in some states, more so in the southern states of India. The policy of the government is to encourage privatisation without giving room for commercialisation. While such private initiatives are encouraged at the college level, there has been reluctance in accepting the concept of private universities. There are various reasons for this, the most important among them being the vociferous objection from a section of the public.

The increasing number of deemed-to-be universities is a good example of this development of the private higher education institutions in India. Most of them were originally either private higher education institutions or affiliated colleges. In order to become a Deemed-to-be university, a private institution has to fulfil the following two requirements: 1). It has existed for 5 years, 2). Inspection from the UGC or the state government has been conducted. If a private higher education institution is granted the title "Deemed-to-be university", it cannot establish its own affiliated colleges.

In 2003, the UGC enacted regulations on private higher education institutions, "UGC (Establishment of and Maintenance of Standards in Private Universities) Regulations." These regulations place the responsibility of establishing a private higher education institution on the state government and lay down clear requirements regarding establishment and recognition of private universities.

Admission Requirements

Admission to higher education is accorded on the basis of the results in the Higher Secondary School Certificate (HSSC). Entrance exams, possibly followed by an interview, take place for entrance to the Indian Institutes of Technology, professional higher education, certain centrally sponsored institutes and universities.

Admission to the most prestigious higher education institutions is highly competitive. Thus, the All India Pre-Medical Test (AIPMT) conducted by the Central Board of Secondary Education (CBSE), is taken by more than 200,000 students annually, of whom only around two thousand are accepted. Similarly, of about 200,000 students sitting the Joint Entrance Examination (JEE) to the Indian Institutes of Technology (IITs) only 4,000 are admitted.

The system of entrance tests is criticized for undermining higher secondary education. Students concentrate on their preparation for the entrance tests and neglect their studies at school. In addition, India has experienced a mushrooming of coaching institutes preparing the students for the entrance tests.

In order to give more importance to school education, the IITs have increased the required minimum score from 2006 to 60% marks in aggregate in the board examination at class XII. Furthermore students will be allowed only two attempts to pass the JEE test from 2006.

In order to reduce the multiplicity of entrance tests and the burden on applicants, separate tests conducted by each institute have been replaced by an All India Engineering, Architecture/Planning and Pharmacy Entrance Examination (AIEEE) for admission to undergraduate programmes in engineering, architecture/planning and pharmacy since 2004/5.

The states hold their own common entrance tests for admission to institutions within their states. A certain number of places are reserved for applicants from scheduled tribes and castes.

Source:
F. 17-18/2002-TS, Government of India, Department of Secondary Education & Higher Education, Ministry of Human Resource Development, New Delhi, the 15th October 2003
News Papers Articles, India, September 2005
Oral information, Central Board of Secondary Education (CBSE), India, September 2005

Degree structure – Content and Grading System

India has a three-tier degree structure with bachelor, master and research degrees. Apart from degree programmes, universities also offer shorter programs at certificate and diploma-level. Diploma courses are available at undergraduate and postgraduate level. At undergraduate level, they vary from one to three years in length; postgraduate diplomas are normally awarded after one year's study.

There follows a description of the different degrees, and some comments on the postgraduate diploma.

Undergraduate level - Bachelor

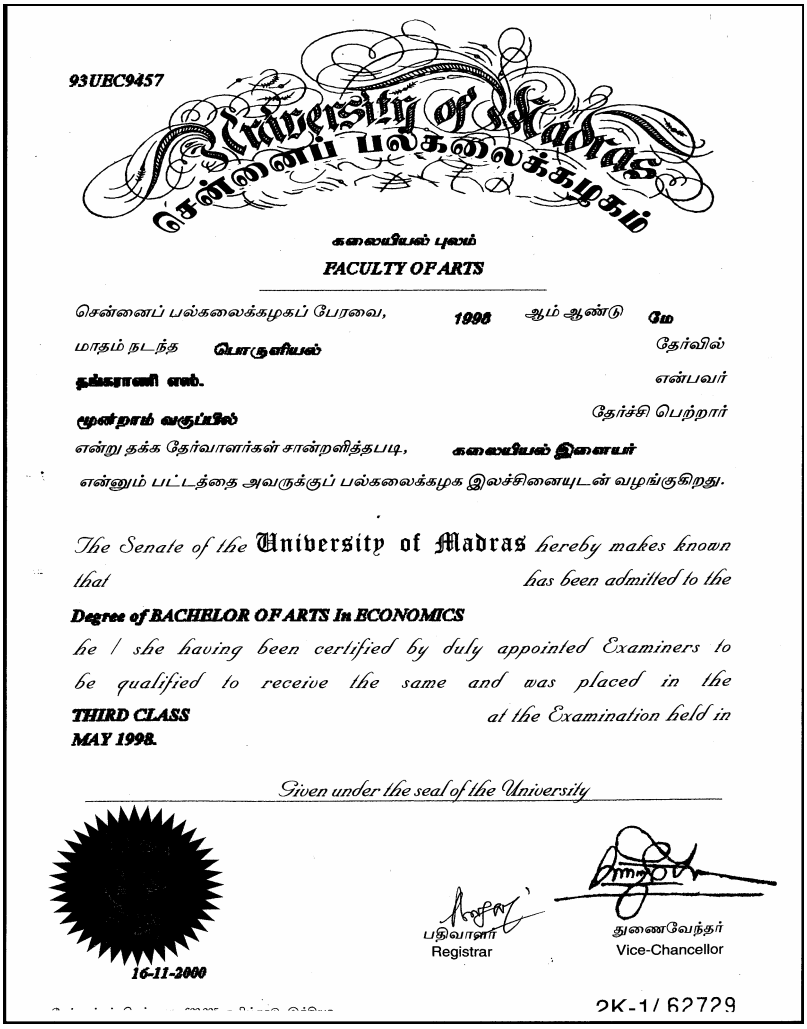
The standard pattern for a bachelor degree used to be two years of full-time study following 10 years of schooling and two years of intermediate study. The two-year bachelor degree was offered at some universities in West Bengal up to 1999/2000, but it was gradually phased out in the other states starting in the 1960s. The present system is commonly referred to as the 10+2+3 pattern, requiring 3 years of study for a bachelor degree in arts, science and commerce.

The professional bachelor's degrees in engineering and technology, veterinary science, and pharmacy and agriculture are obtained after 4 years of study. Architecture and medicine take 5 and 5½ years respectively. Some universities offer a 5-year integrated professional degree in law.

Bachelor degrees are awarded as Pass/General or as Honours/Special degrees. There is no common nomenclature in India and the requirements for Honours/Special degrees vary. An honours degree might require some additional papers or a separate course with specialisation in the honours subject.

Postgraduate Bachelor degrees require a bachelor for admission. Examples are Bachelor of Education, Bachelor of Library Science and Bachelor of Laws. BEd and BLibSc are one-year degrees although there is a proposition to expand the BEd to two years. LLB is a three-year degree.

Here is an example of a Bachelor degree certificate issued by the University of Madras in 2000:



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University of Madras

சென்னைப் பல்கலைக்கழகம்

கலையியல் புலம்

FACULTY OF ARTS

சென்னைப் பல்கலைக்கழகப் பேரவை, 1998 ஆம் ஆண்டு மே

மாதம் நடந்த பொதுவியல் தேர்வில்

தங்கராணி எஸ். என்பவர்

மூன்றாம் வகுப்பில் தேர்ச்சி பெற்றார்

என்று தக்க தேர்வாளர்கள் சான்றளித்தபடி, கலையியல் இளையர்

என்னும் பட்டத்தை அவருக்குப் பல்கலைக்கழக இலச்சினையுடன் வழங்குகிறது.

The Senate of the University of Madras hereby makes known that has been admitted to the

Degree of BACHELOR OF ARTS In ECONOMICS

he / she having been certified by duly appointed Examiners to be qualified to receive the same and was placed in the THIRD CLASS at the Examination held in MAY 1998.

Given under the seal of the University

16-11-2000

பதிவாளர்
Registrar

துணைவேந்தர்
Vice-Chancellor

2K-1/62729

Postgraduate level - Master

Master degrees are of different types. The Master of Arts, Science or Commerce takes another 2 years of studies in the same subject after the bachelor degree. Most programmes consist of coursework although some universities have programmes involving research. The specialised master degrees, i.e. Master of Education, Master of Business Administration and Master of Computer Science, have different entry requirements. For instance, the MBA requires a bachelor's degree in any subject.

The professional master degrees are of 3 or 4 semester duration based on a 4-year bachelor in the same field. The Master of Technology and Master of Engineering take 1.5 years but there is also a 2-year Master of Science of Engineering degree by research. In medicine, the programmes last two or three years.

In some areas, such as in the engineering field, there is an entrance test for admission to master programmes. Entry is otherwise based on marks for scheduled tribes and castes and the requirements are normally 5% lower.

The integrated master degree is not necessarily a postgraduate degree; it can be a combination of two fields at undergraduate level.

The possibility of studying a new subject at master level differs. For instance, at some of the schools at Jawaharlal Nehru University, it may be possible to study for a master degree in a subject different from subjects in the bachelor degree. However, this is not a common scenario.

The postgraduate diplomas are generally shorter, with less depth and more practical work than the corresponding master's degree.

Master of Philosophy
Some universities offer the Master of Philosophy (MPhil), a pre-doctoral research programme requiring a master for admission. It can either be completely research based or also include course work. The duration varies. Some institutions require the MPhil for admission to PhD programs. At the Indira Gandhi National Open University, the MPhil is not required but, without it, the student must take some extra courses. At Jawaharlal Nehru University, a student with good results from the MPhil courses can skip the thesis and continue directly to doctoral level studies.

Research degrees - PhD
The degree of Doctor of Philosophy is awarded at least 2 years after the MPhil or at least 3 years after the Master's Degree. It involves original research resulting in the writing of a thesis and in some cases also substantial coursework. Admission requires a Master' Degree or a Master of Philosophy in the same subject, and some universities require research experience. Students are expected to write a substantial thesis based on original research.

Some research institutes and laboratories are recognised for doctoral work although the usual case is that a university awards the degree.

The Indian Institute of Science in Bangalore was the first institution to introduce an integrated Master-PhD programme with direct entry from bachelor level. One effect of this programme is that the student can obtain the degree approximately six months earlier than would otherwise have been the case.

Content of degree programmes
The higher education system in India is perceived as quite rigid, a view expressed by some of the people the delegation met during the visit. For instance, it is not easy for students to transfer from one university (in India or abroad) to another, as the institutions tend not to accept studies conducted at other institutions.

One factor behind this is that the annual system is still the most widely used at Indian universities. The semester system is used, but to a lesser extent.

At Jamia Hamdard, a deemed-to-be university specialising in traditional Indian Unani medicine and professional courses mostly in health-related subjects, the delegation were told that the university accepts transfer students from some colleges. Hindu College, a college of the University of Delhi, does not ordinarily admit students into the second year of an Honours course, and the rules for migration from other colleges of the same university states that a student must have a mark of at least 60% in the university examination from the previous year.

A typical bachelor degree requires English, an Indian language and two or three other subjects. The UGC has published model curricula in 38 different subjects on their website, from anthropology to zoology, that universities are free to use if they wish, in their entirety or for inspiration when determining their own syllabi.

Examples of Programmes of Bachelor's Degree

An example of a typical programme of Bachelor of Arts, the B.A. programme at Hindu College of University of Delhi:

First year: two language courses (English, Hindi, Sanskrit), two discipline courses (economics, history, political science, Sanskrit, philosophy)
Second year: one language, one foundation course, and two discipline courses continuing from first year
Third year: one language, two discipline courses continuing from first and second year, one application course.

For the honours courses, the student would take one major course along with concurrent courses. If the main subject were English, the concurrent courses would be Hindi or Sanskrit and one interdisciplinary course.

Here are two more examples of the structure of undergraduate programmes, this time from the UGC Model Curriculum for Commerce. The first is the B.Com and the second is one of five speciality programmes

	Bachelor of Commerce	**Bachelor of Accounting and Finance**
First year	Business Communication	Business Communication
	Mathematics	Mathematics
	Financial Accounting	Financial Accounting
	Business Regulatory Framework	Business Regulatory Framework
	Business Economics	Business Economics
	Business Environment	Business Environment
Second year	Corporate Accounting	Corporate Accounting
	Company Law	Company Law
	Business Statistics	Business Statistics
	Cost Accounting	Cost Accounting
	Principles in Business Management	Principles in Business Management
	Income Tax	Income Tax
	Fundamentals of Entrepreneurship	Fundamentals of Entrepreneurship
Third year	Info Tech. and its implications in Business	Info Tech. and its implications in Business
	Money and Financial Systems	Management Accounting
	Management Accounting	Financial Management
	Auditing	Financial Market Operations
	Indirect taxes	Indian Financial System
		Security Analysis and Portfolio Mgt.
	Two courses in Finance, Marketing, Banking and Insurance or E-commerce	Financial Statement Analysis

The UGC describes the B.Com degree as a general first-degree programme offered by almost all colleges. The UGC wants to retain the professional character of education in commerce and, apart from the B.Com, they also suggest 5 speciality programmes in Accounting and Finance (BAF), Marketing (BM), International Business (BIB), Banking and Insurance (BBI) and E-commerce (B.Ec). As can be seen, there is a high degree of communality in the course structure of the different programmes.

These programmes are designed to be terminal in the sense that the graduates should be able to find jobs in lower and middle level supervisory positions. At the same time, the student should have the chance to join any of the commerce-related master programmes at a later stage in his or her career.

Grading system

The majority of Indian institutions uses a percentage system. Most Bachelor and Master degrees are classified into divisions or classes according to the marks obtained. Grading systems vary from university to university. The Indian system is low marking, with a pass mark sometimes as low as 33% and 60% representing First Class or Division. Minimum and maximum pass marks vary.

The main systems are:

Percentage system	
First Division or Class with Distinction	70% or 75% or above
First Division or Class	60% and above
Second Division or Class	45% (or 48% or 50%) – 59%
Third Pass Division or Class	33% (or 36% or 40%) – 44% (or 47% or 49%)

or:

Seven Point Scale (recommended by the Association of Indian Universities)*	
O	Outstanding
A	Very Good
B	Good
C	Average
D	Below Average
E	Poor
F	Very poor

*O and A correspond to the First Division or Class, Band C corresponds to the Second Division or Class.

Classification Variations

- Some degrees are normally awarded without classification. These include research degrees: PhD, MPhil and other general Master degrees with a research component (now rare). Master degrees in professional disciplines are often awarded unclassified. Postgraduate degrees in medicine and surgery are also normally unclassified and most universities award the MBBS unclassified; again there are exceptions.
- At some universities, students who repeat a subject are classified in the Pass Division, whatever their marks. Marks obtained are available on the marks sheet.
- On some degree certificates, the classification mentions two (or three parts). Part I (or Parts I and II) usually refer to compulsory language studies such as English and Hindi, or a regional language, while Part II (or Part III) refers to the major areas of study.

Agricultural Universities
According to NOOSR (2005), these universities mostly use various grade point systems. Initially, the preferred system was a four-point scale:

A	Excellent	4 points
B	Good	3 points
C	Fair	2 points
D	Poor	1 point

For admission to postgraduate programmes a minimum mark is normally specified. This varies considerably, according to the university. One common cut-off is 2.60, but other universities require 2.00, 2.20 or 2.25. Top institutions require 3.00 on the 4 point scale.

Increasingly, agricultural universities are using a 10 point scale. The system varies considerably, and it is difficult to find information about pass marks or classification equivalence.

For example:

First Division or Class	8.50-10.00
Second Division or Class	7.00- 8.49
(no Third or Pass Division or Class)	

Admission to postgraduate programmes at a highly competitive university may require an overall grade point average (OGPA) of 7. At other universities, this cut-off point falls between 6.00 and 6.70 (a few institutions using 5.5). This may suggest that from 5.5 to 6.70 qualify for the Second Division or Class at these universities.

Other systems include a 3 point system and a 5 point system. Some agricultural universities restrict classification in the First Division or Class to graduates who complete the program within the minimum prescribed period of study, with no failures.

National Institute of Technology (NIT)/Indian Institutes of Technology (IIT)

Recent changes**:** Regional Engineering Colleges (REC), are now known as National Institute of Technology (NIT).

The grading system varies from the different institutions. Two examples are given below:

Grade	**Grade points**
A	10
B	8
C	6
D	Fail

or:

Grade	**Grade Points***
S	10
A	9
B	8
C	7
D	6
E	5
F	0 Fail
W	0 (Failure due to insufficient attendance)
I	0 (Grade to be awarded later)

*In this type of grading system, the grades of first class, second class etc. are not used.

The following is the grading scale from some universities where they state percentages. The grading system varies from university to university:

Distinction:	75% and above
First Division:	60% and above but less than 75%
Second Division:	50% and above but less than 60%
Third Division:	40% and above but less than 50%

Technical Higher Education

Technical education includes professional education from sub-degree level to postgraduate level. In this section, only technical education at tertiary level will be discussed.

The statutory body for technical education is the All India Council for Technical Education (AICTE). AICTE decides on norms and standards for courses, curricula, facilities, teaching staff, assessment and examination. These norms and standards are the minimum requirements to gain recognition under the AICTE Act. The National Board of Accreditation (NBA) of AICTE also uses these norms and standards in the accreditation process.

Education in the technical field is conducted at polytechnics, universities, Indian Institutes of Technology, Regional Engineering Colleges etc. The Regional Engineering Colleges are academically affiliated to universities and have a national intake. Some of them have been upgraded to deemed-to-be university status lately and changed their name to National Institute of Technology.

The polytechnics train technicians and offer courses in engineering, technology and in a few non-technological fields. These courses have already been described but some comments will be made here. Most of the Diploma courses of the polytechnics require 10 years of schooling for admission. It is possible to come across students admitted after 10+2 since those who fail to gain admission to a university may opt for a diploma at a polytechnic. Some courses, however, actually require 10+2 for admission.

The polytechnics also offer Post-Diploma Courses for working diploma holders and Advanced Diplomas in emerging fields, also for the working diploma holders. These courses may also be offered to students holding a bachelor's degree.

Polytechnics are affiliated to a State Board of Technical Education that lays down the standards for courses and evaluation.

Since course titles, duration and entry qualifications vary from state to state, AICTE has been trying to streamline the nomenclature for this type of qualification.

Apart from setting norms and standards for technician education, AICTE also set norms and standards for degree programmes in engineering/technology (degrees), management education (MBA and post-graduate diplomas in management), architecture (degree or equivalent), town and country planning (undergraduate and postgraduate) and hotel management and catering

technology (diploma and degree). The norms and standards can be found at the website of AICTE: http://www.aicte.ernet.in

Since many of the students pursuing further education in the Nordic countries do so in the field of engineering, the program structure prescribed by AICTE for the engineering degree program follows:

The subject materials to be included in a four-year degree program in engineering need to be sub-divided as follows:

1 General 5-10%

It will be desirable to have a minimum of one course in each of the areas as below:

i. Language/Communication skills
ii. Humanities and Social Sciences
iii. Economics and Principles of Management
iv. NSS, NCC, NSO, Rural Development

All these courses should cover the basics only. Advanced courses if considered desirable should be offered from the time allotted in professional courses. For students deficient in English language, special courses should be provided outside the normal contact time.

2 Basic Science 15-25%

It will be desirable to have a minimum of one course in each of the following areas:

i. Computer Literacy with Numerical Analysis
ii. Mathematics
iii. Physics
iv. Chemistry

Institutions may strengthen their curricula with common additional courses required by them as per their need to make up a maximum to 25% of the contact time available.

3 Engineering sciences and Technical Arts15-25%

It will be desirable to have a minimum of one course in each of the following areas:

i. Engineering graphics
ii. Workshop Practice
iii. Engineering Mechanics
iv. Electrical Science I (Basic Electrical Engineering)
v. Thermodynamics and Heat Transfer
vi. Material Science and Engineering
vii. Electrical Science II (Electronics and Instrumentation)

It is also suggested that courses like (1) Engineering Systems Design (2) Building Materials (3) Surveying (4) Transport Phenomena may also form a part of this core curriculum.

4 Professional subjects 55-65%

Each engineering discipline will have its own minimum number of core courses. The

rest of the courses will cover professional subjects as per list suggested by experts, in line with the academic regulations of the institution.
Wherever possible, about 10% electives should be made available to the students. Open interdisciplinary electives allow a student to diversify his/her spectrum of knowledge. Accordingly, it is desirable that these electives be also chosen from outside the main discipline. In order to create a variety of individual skill and profile, it will be desirable to have a provision for some audit (non-credit) courses during the last two years of the degree program.
In the case of laboratory practicals a bank of experiments should be prepared, and every year new experiments/modifications should be introduced. A majority of experiments should preferably be open-ended. The students are expected to work by themselves without the aid of technicians.
Further, there should be continuous evaluation in tutorials, practical work, laboratory and project assignments.

Distance learning – Open Universities

Since its inception in 1962 at the University of Delhi, distance education has grown considerably. There are now some sixty Institutes/Directorates of distance education attached to conventional universities and ten Open Universities, including Indira Gandhi National Open University (IGNOU) with over 150 regional centres throughout India.

Distance education programs cover about one hundred Degree/Diploma courses. Many conventional universities offer correspondence courses at their Correspondence Course Institutes (CCI). These courses are sometimes supplemented by contact classes.

IGNOU is also a national level apex body for distance education. The Distance Education Council (DEC) has been established as a statutory authority under the IGNOU Act. The DEC is responsible for the promotion, coordination and maintenance of standards of open and distance education systems in India.

Educational programs offered by IGNOU include areas in humanities, social sciences, sciences, applied sciences, computer applications, rural development, health sciences, management, education, engineering and technology.

The instruction system used by IGNOU is considered a “multi-media approach in instruction”. It includes self-instructional printed course-material packages, assignments and feedbacks, supporting audio-video programming, face-to-face interaction with academic counsellors at Study Centres, practicals (laboratories) at designated institutions, project work in social programs, telecast of video programs on the National Network of Doordarskar, and broadcast of audio programmes by All India Radio (on selected stations).

Examples of the degrees awarded through distance education are B.A., B.Sc., B.Com., B.B.A., LL.B., B.Ed., B.E., B.Tech., B.Lib.Sc., M.A., M.Sc., M.Com., M.Ed., and M.B.A. degrees. Postgraduate diplomas are offered in such subjects as Business Administration, Computer Application/Systems and Management, Material Management, Pre-School Education, Statistics, and Tourism/Hotel Management.

Open universities:

1. Indira Gandhi National University (1985)
2. Dr. B.R. Ambedkar Open University (1982)
3. Kota Open University (1987)
4. Nalanda Open University (1987)
5. Yashwantrao Chevan Maharashtra Open University (1989)
6. Madhya Pradesh Bhoj (Open) University (1991)
7. Dr. Babasaheb Ambedkar Open University (1994)
8. Karnataka State Open University (1996)
9. Netaji Subhas Open University (1997)
10. U.P. Rajarshi Tandon Open Universities

Chapter 4 Teacher Training

Elementary teachers are trained in Teacher Training Institutes (TTI, also called Junior Basic Training Institutes or Primary Teacher Colleges) attached to State and university departments of education. The course usually lasts for two years and leads to a Diploma in Teacher Education or a Primary Teacher Certificate, P.T.C.

Secondary teachers are required to hold a Bachelor's degree in Education or in a few instances a Bachelor of Teaching. The B.ED or B.T requires one year of fulltime study following a Bachelor degree, normally in arts, science, or commerce. Teachers at the upper secondary level normally are required to hold a master's degree in their area of teaching specialization. Four Regional Colleges of Education offer a combined four-year integrated programme leading to a Bachelor's degree.

Teachers at colleges of education must hold a M.Ed. and a Ph.D. Studies for these are undertaken at a number of universities.

Instructors in technical and vocational schools are normally trained in Central Training Institutes (CTIs), which offer one-year courses providing training in skills development and principles of teaching. Graduates of these institutions are awarded an Instructor Training Certificate.
The National Council for Teacher Education is entrusted by The Central Government with all matters concerning teacher education of India, including. quality, content and evaluation.

Competence levels obtained at institutions providing teacher education and training

Level of teachers	**Class-level to teach**	**Degree/certificates**	**Admission qualification**	**Duration**	**Institutions**
Lower primary school teachers	Grades I to V	Diploma in teacher education, Teacher Training Certificate or Primary Teacher Certificate (P.T.C.)	10 years (SSC/Class/ Standard X)	1-2 years	Teacher Training Institutes
Upper primary school teachers	Grades VI to VIII		12 years (H.S.S.C.)	2 years	
Lower secondary level school teachers	Grades IX and X	B. Ed., Bachelor of Education degree	Bachelor	1 year	Postgraduate course at a university
Upper secondary level school teachers	Grades XI and XII		Master's degree	1 years	Postgraduate course at a university
Secondary level school teachers	Grades IX to XII	BA B.Ed. or BS B.Ed or BCom. B.Ed.	12 years (H.S.S.C.)	4 years	Four regional Colleges of Education
Training of higher education teachers	Colleges of education	Not mentioned	M. Ed. and PhD Degree	2 and 3 years	University
Technical and vocational school teachers	All levels	Instructor Training Certificate I.T.C.	Dipl. in Engineering etc.	1 year	Central Training Institutes

National Council of Teacher Education (NCTE):

During our meeting with NCTE, we got the impression of a competent organ deeply involved in development of teacher education. NCTE is committed to, among other things, developing the quality of teacher education

The role of NCTE is to unify and regularise teacher training. An Act of Parliament in 1993 gave it statutory powers regarding recognition of teacher education institutions, staffing and teacher education programmes as well as the means to develop teacher education.

About 2000 teacher education institutions are engaged in the preparation of teachers for different school stages.

Teacher training as an integral part of the Indian education system started with the first normal schools in India in 1856. The Indian Education Commission approved introduction of separate teacher education programmes for elementary and secondary teachers in 1882.

Today, according to NCTE, teacher education for primary education is comparable to international standards in many states. However, the same cannot be said about the preparation of secondary, vocational and pre-school teachers.

So internship, practice of teaching, practical activities and supplementary educational activities as part of teacher education still need to be developed, concludes NCTE.

Source:
- World Higher Education Database 2005/6, International Association of Universities, UNEXCO House, Paris
- World Education Services, 2004, Toronto, Ontario Canada
- Country Education Profiles: India, NOOSER, 1996, Canberra, Australia

Chapter 5 Transnational Education

India is mainly an importer of higher education. To a smaller degree, the country is also an exporter of educational programmes. In response to globalisation, the UGC has initiated a programme for the Promotion of Indian Higher Education Abroad (PIHEAD), which will run through the tenth five-year plan (2002-07).

Education in India is considered to be a social service and is accorded the status of public good. The recognition of the education sector as a tradable service sector under the General Agreement on Trade and Services (GATS) – World Trade Organisation (WTO) regime has challenged India's understanding of education as a social service.

In the absence of any national policy to regulate the foreign education service providers, India has witnessed liberalisation of the sector. Thus, the presence of foreign universities in India may, in future, turn towards commercialisation against Central government's or the Supreme Court's view that education is not for profit.

According to WES, the UGC expresses concern about the commercial presence of foreign educational institutions and fears that higher education will be limited to the select few as there will be a high price for acquiring any foreign degree. Another concern is that commercialisation will promote privatization that will, in turn, increase the cost of higher education.

There is concern among the public that commercialisation will adversely affect public higher education and fear that the government may slowly withdraw from its commitments to higher education, seeing that the alternate mechanism of funding is gaining support from international sources. They also fear that developing countries may be flooded with foreign and private providers delivering essentially profitable subjects.

Quality assurance of transnational education is not specifically conducted by any accrediting councils, due to the fact that India has no national regulation on this type of education. However, the UGC under the Ministry of Human Resources and Development, Distance Education Council, and AICTE are involved in this field. Transnational education offered by Indian higher education institutions has to be recognised by the UGC; see "Guidelines and Practices in the Field of Trans-National Educations" in http://www.ugc.ac.in .

In 2005, AICTE has drawn up a fresh set of regulations to monitor foreign technical education institutions and prevent the entry of non-accredited institutes into the country. The new rules will replace the earlier mandate issued by the AICTE in April 2003.

Under the new system, foreign institutions will be treated on a par with Indian technical institutions and will be governed by AICTE guidelines. They will not be allowed to appoint additional campuses in India. "Education innovations, including experimentation with different modes of delivery by a foreign university, shall be allowed, provided such a system is well established either in their parent country or in India," state the regulations on the AICTE website. AICTE will stipulate the fee and the intake for each course to be offered by foreign education providers.

Foreign Institutions in India

The 1990s saw the emergence of foreign universities operating in India in collaboration with private institutions in the country. A research study conducted by *National Institute of Educational Planning and Administration* (NIEPA) in 2005 on 'Foreign Education Providers in India' brings out some of the salient features of their operation. There were 131 Indian institutions collaborating with foreign institutions. The list, however, may not be fully exhaustive.

It may be observed that in some states the foreign education providers were concentrated in metropolitan cities and some other cities where the prospects of vocational courses exist on a large scale. Information also shows that, at present, only the USA and the UK have shown interest in collaborating with Indian partners. There are other potential countries such as Australia, New Zealand and Canada who are watching the developments and the government stand on any regulation regarding Foreign Education Providers. At present these countries are organising educational fairs and have also representatives to attract Indian students to their respective countries.

The majority of the foreign education providers provide professional/vocational courses. Of the total sample of 131 institutions (2005), 107 were providing vocational courses, 19 technical courses and only 5 were offering general education. The data show that, in the category of vocational courses, management courses are the most popular. Business Management and Hotel Management constitute approximately 80% of the total number of courses.

The commercial presence of foreign institutions has led to multiple methods of collaboration for delivering foreign programmes. The collaborative arrangement under the commercial presence varies from institution to institution. There are, in general, three existing and one possible categories of delivery of foreign programmes in India.

Types of Operation of Foreign Institutions in India

Types of Collaboration	Numbers of collaboration
Twinning Arrangement	30
Franchise	2
Offshore Campus/Branch Campus	0
Programmatic collaboration include joint course design, credit transfer etc.	18

Source: Above result is based on a sample of 50 institutions, taken from 'Foreign Education Providers in India', NIEPA, New Delhi, 2005.

The table shows that most programmes are offered under the twinning arrangement. In fact, this is one of the preferred methods for the foreign institution to attract international students to the home country. Under twinning, the movement of students from one country to another enables them to obtain the foreign degree at a relatively lower cost since part of the course is undertaken in the host country.

The programmatic collaboration that consists of joint courses and joint degree provision by the institutions of the home and the host countries ranks second in India in terms of the supply of education services by foreign institutions. The reason is that the Indian partner may prefer

to design a programme with the inputs received from the foreign institution and offer the whole programme in India to make it cost competitive. Another reason may be that, through this mode, Indian private partners prefer to have a brand name of a foreign university in the absence of any regulation allowing private institutions to award the degree.

Franchising is one of the modes of operation, which is a kind of collaboration between a foreign institution and an Indian university where the exporting and awarding institution controls course design and delegates course delivery to the importing Indian university.

There are only two such institutions in India. The fourth category in which the foreign education providers can show their presence is that of branch campuses. None of the foreign institutions presently come under this category, perhaps because there is no domestic regulation for the operation of foreign institutions in India. The absence of such concrete regulation inhibits growth, due to the investment in infrastructure required to open branch campuses. Once such regulation is in place, the number of branch campuses might increase.

Indian Institutions Abroad

Many Indian institutions have opened branch campuses abroad. However, the number of such institutions abroad is smaller than that of foreign institutions in India. In the higher education segment, they include some deemed-to-be universities such as Birla Institute of Technology Pillani, Manipal Academy for Higher Education (MAHE), and private institutions such as NIIT India (this last is a private institution which is applying for recognition as a deemed-to-be university; see List of Proposals for the Grant of Deemed University Received and Screened up to 17 February, 2005 at http://www.ugc.ac.in/inside/receivedproposal.pdf).

Additionally, some public institutions like Delhi University, Indira Gandhi National Open University (IGNOU), Shreemati Nathibhai Damodar Thackersey (SNDT) College, Mysore University and Madras University are making their presence felt abroad.

The Government of India has taken various initiatives to promote Indian education abroad. In April 2002, it established the Committee on Promotion of Indian Education Abroad (COPIEA) under the chairmanship of the Secretary, Department of Secondary & Higher Education. The COPIEA will monitor all activities aimed at promoting Indian education abroad and will regulate the operation of foreign educational institutions to safeguard the interests of students and the larger national interest as well.

To this end, a system of registration will be introduced under which institutions will have to furnish information on operations and adhere to certain guidelines relating to publicity, maintenance of standards, charging of fees, granting of degrees etc. The COPIEA will, over a period of time, develop a sectoral policy on foreign direct investment in the education sector. (10^{th} Five-year plan).

Regional convention

There is a regional convention of UNESCO which is called "*Regional Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific*", which was signed by 33 countries (including India) in the region in 1983. India ratified the convention in 2000.

This convention is similar to the *Lisbon Convention* in Europe. It paves the way for academic mobility among the Asian countries. The contracting states intend to promote collaboration in education and research. In order to achieve this goal, the convention defines the areas and methods of recognition of foreign certificates, diplomas or degrees of higher education in the region.

Chapter 6 Quality Assurance

General Education

There is no overall quality assurance body within secondary and higher secondary education with the power to monitor the quality of secondary educational institutions and establish sanctions if the standard of quality is not adhered to.

The National Council of Education Research and Training (NCERT) is empowered to elaborate the national curriculum framework as part of the concurrent subjects in the India constitution. The authority of implementation of curricula and quality assurance lies with the provinces and the boards of secondary education.

As NCERT has noted, standards vary from state to state as well as from board to board. The Central Board of Second Education (CBSE) and the Council for Indian School Certificate Examinations (CISCE) are generally recognised as competent bodies regarding quality assurance, and so are some state boards. CBSE, for example, has worked out detailed rules for affiliation and examination and also has procedures for regular revision of the curriculum.

Reports (see literature list) note particularly the lack of trained teachers within rural primary education as well as the high teacher absenteeism rate as an impediment to quality in teaching.

Teacher Education

The National Council of Teacher Education (NCTE) as a statutory body came into existence in pursuance of the National Council for Teacher Education Act, 1993 (No.73 of 1993) in 1995. The mandate given to NCTE includes research and training of persons for equipping them to teach at pre-primary, primary, secondary and senior secondary stages in schools, and non-formal education institutions, part-time education, adult education and distance (correspondence) education courses. NCTE has headquarters in New Delhi and four Regional Committees spread across the country.

NCTE performs both institution and programme accreditation. Its accreditation process is laid down in the above-mentioned act enacted by the Indian Parliament. The process can be summed up as follows:

1. Application for recognition submitted to the Regional Committee
2. Regional Committee decides whether the institution has adequate financial resources, accommodation, library, qualified staff, laboratory, fulfils conditions required for proper functioning for a course or training in teacher education
3. Recognition
4. Results published in an Official Gazette
5. Non-recognition will lead to discontinuing of the course or training in teacher education

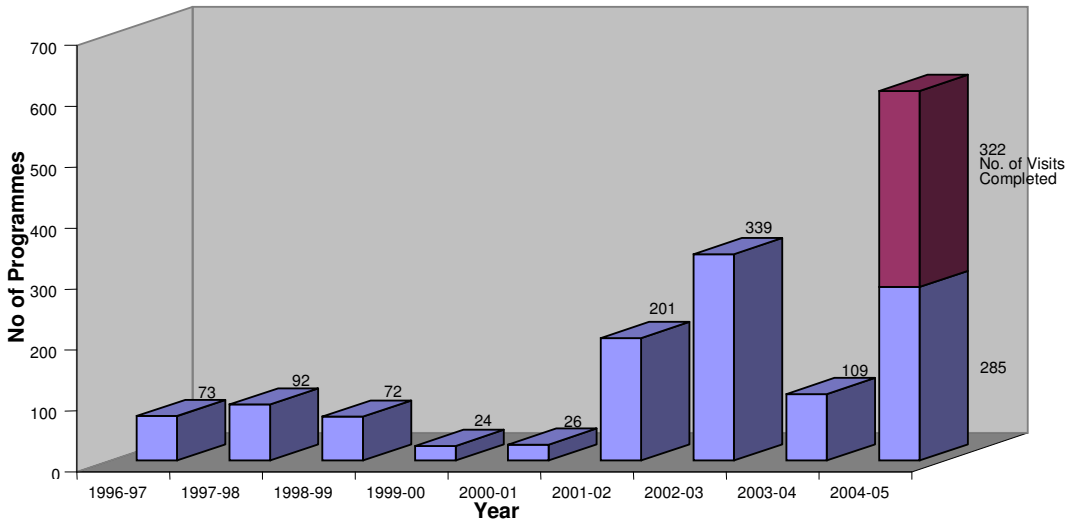
If a teacher education institution is accredited by NCTE, it is automatically granted affiliation to a university. NCTE can also withdraw accreditation from an institution. The withdrawal is also published in an Official Gazette for general information. In this case, the institution automatically loses its affiliation.

A list of accredited programmes and institutions by NCTE is provided in http://www.ncte-in.org with detailed information on the duration and level of teaching qualifications (pre-primary, primary, secondary, senior secondary, etc.).

Technical and Vocational Education

The Vocational Training/Craftsmen Courses are offered at the Industrial Training Institutes. The Diploma courses are offered in the Polytechnics which are widely spread throughout the states and Union Territories. These polytechnics are affiliated to the respective State Boards of Technical Education which lay down in general the levels and standards of the courses and guide the system of evaluation of the students sitting examinations. Degree and Post-Graduate courses are offered in colleges affiliated to the various Universities, certain University Departments, and institutions declared to be of national importance or deemed to be universities.

The All India Council of Technical Education (AICTE) is responsible for quality assurance of technical and vocational education in India. In order to assess the qualitative competence of educational programmes in engineering and related areas from the diploma level to the post-graduate level, the National Board of Accreditation (NBA) was established in 1994 under section 10(u) of AICTE Act, 1987. While the AICTE takes care of the regulatory role, the NBA performs programme accreditation. The NBA makes recommendations to the AICTE for recognition or derecognition of institutions or programmes, while the AICTE approves new institutions and new programmes. There has been an accelerated effort to accredit programmes. The total number of programmes accredited is 1,522. (See the figure below)



The NBA's accreditation procedure comprises the following steps: The institution submits an application with information/data provided by the NBA. An accreditation team constituted by

the NBA visits the institution and make its recommendations. Accreditation is awarded by the NBA. The result is notified and published in the Directory of Accredited Programmes of Institutions.

The NBA has prescribed accreditation criteria for undergraduate and post-graduate programmes. The criteria for undergraduate programmes are: organization and governance, human resource facility-faculty & staff, students, finance & physical resources, mission, goals, research & development, industry-institution interaction, research and development, supplementary process, teaching-learning process. NBA's accreditation is periodical and valid for 3-5 years.

Higher Education

India has had a well-developed quality assurance (QA) system since independence in 1947. The QA system is embodied in regulations covering nearly all the fields of studies and professions. In India, the establishment of universities is regulated by law. Only the parliament of the Government of India (central/union government) and state legislation can establish a university.

Various apex institutions have been entrusted, either by an Act of Parliament or by an Act of Legislative Assembly or by central or state governments, with the responsibility to regulate the standards of education. For example, the University Grants Commission (UGC) was established by the UGC Act, 1956, to coordinate and maintain standards of university education. The NAAC was established in 1994 under 12cc of the UGC Act to assess the standards of quality. It assesses and accredits universities along with their constituent and affiliated colleges.

Similarly, as mentioned earlier, the AICTE was established under the AICTE Act 1987 to plan and coordinate the development of technical education system in the country. Under Section 10 (U) of the AICTE Act, the National Board of Accreditation (NBA) has been set up to assess and accredit the technical institutions in the country and to make recommendations to the relevant authorities for recognition and derecognition of qualifications.

Furthermore, the National Council of Teacher Education (NCTE) was established in 1995. A list of statutory bodies which regulate the standards of education in various professional fields is provided in the appendix 1.

NAAC Initiative

To ensure quality in higher education institutions, the National Assessment and Accreditation Council (NAAC) was established on 16 September 1994 as an autonomous affiliate of the UGC.

The NAAC is different from the other accreditation agencies which accredit programmes and institutions in the field of professional studies, in that it is an autonomous body and can accredit all kinds of higher education institutions, both general, teacher, technical and professional, and in that it is not mandatory to be regulated by the NAAC, even though a few states have made it so. The professional accrediting agencies conduct assessment and accreditation of programmes or institutes within their respective domains.

Many specialized institutes that the professional accreditation agencies have accredited, have also volunteered for institutional accreditation by the NAAC. Quite a few engineering, medical, fine arts, law and management institutes, for example, have been accredited by the NAAC.

The delegation encountered different attitudes towards external quality assurance. Some of the universities, particularly the young ones, argued in favour of the external quality assurance , as a means to guarantee standards and attract students. Others were opposed to external quality assurance. Institutions gave several reasons for resistance to accreditation, including a lack of resources, documentation and/or time to carry out self-assessment. In addition, administrators at affiliated colleges feel that autonomous institutions have an unfair advantage because autonomy allows for greater flexibility in programme structure, use of funds and teaching strategies.

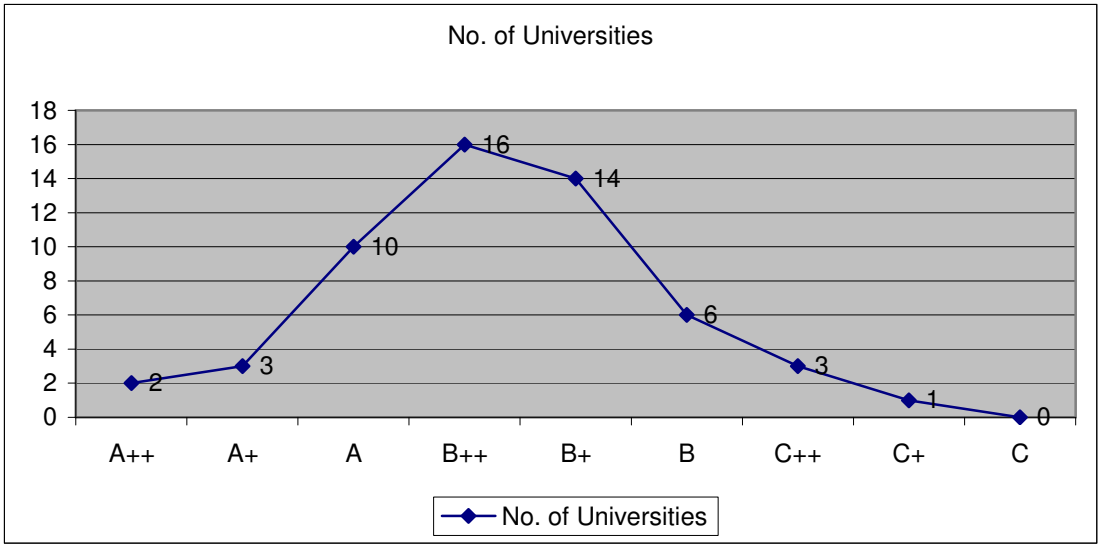
Perhaps the most compelling argument for rejection of the NAAC is the fact that so few of the most reputable institutions in India have initiated the assessment process; they simply do not rely on an external agency's endorsement.

The reputable India Institute of Science has preferred not to be accredited by NAAC. When asked for the reason for this, the answer from the Director of International Relations of the Institute was that they did not need any accreditation to assure quality of education.

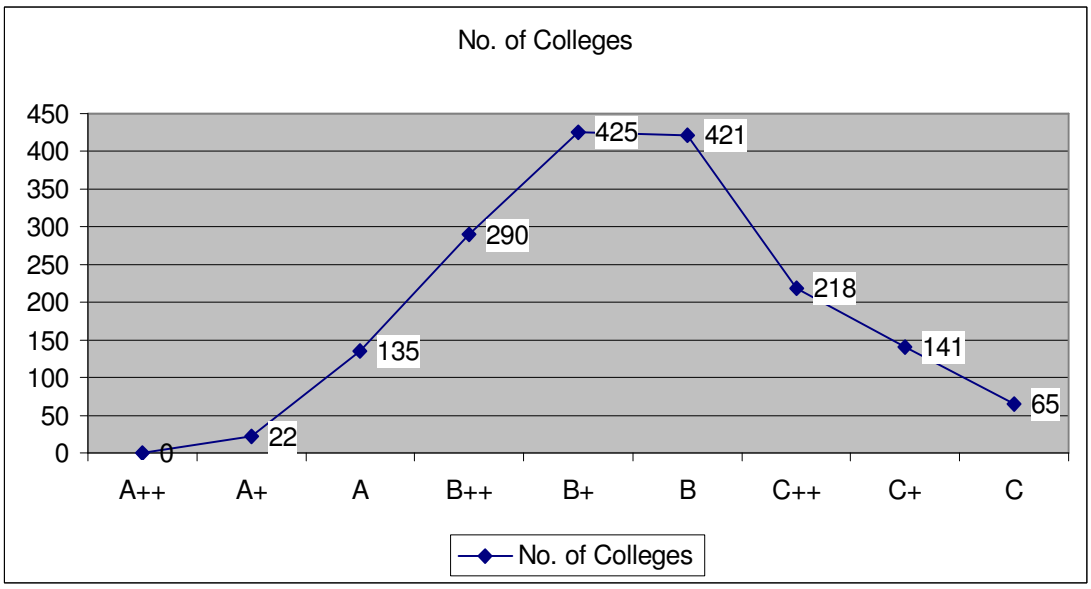
The NAAC applies the following criteria in assessment and accreditation: curricular aspects, teaching, learning and evaluation, research, consultancy and extension, infrastructure and learning resources, student support and progression, organisation and management and healthy practices.

The accreditation process that the NAAC applies follows these 5 steps: 1). Developing the National framework for degrees and programmes; 2). An institution prepares and submits a self-study report. 3). A peer team visits the HE institution and writes a report and make recommendations to the NAAC. 4). The NAAC certifies the final accreditation. 5). The NAAC publicly announces the accreditation outcome. An institution can make an appeal against the outcome. The NAAC conducts two types of accreditation, i.e. institution and programme assessment. Accreditation by the NAAC is valid for 5 years.

Due to the high number of higher education institutions in the country, the NAAC currently gives priority to assessment of institutions which are funded by the UGC. The NAAC has so far accredited 2,088 colleges and 113 universities in India (2005). The analysis of accreditation of 55 universities show that 16 universities obtained B^{++}, 24 universities obtained lower than B^{++} and only 15 universities obtained higher than a B^{++} grade. Of 1,717 colleges accredited, 425 received B^{+} and 845 colleges received lower than a B^{+} grade, whereas 447 colleges received better than a B^{+} grade.



As shown in the figure above, A++ is the highest grade, with C as the lowest; the scale on the left is the number of universities, from 0 to 18.



Since there are many other national councils also responsible for quality assurance in higher education in professional fields of study, the NAAC is trying now to link all quality assurance agencies in accreditation work. For example, it cooperates with the National Council of Teacher Education (NCTE) on the accreditation of teacher training institutions.

Quality Assurance at State Level

In a country of India's size, there are bound to be differences in quality. The NAAC has been able to identify high quality colleges and universities through the process of external accreditation. It is necessary to develop a quality drive, through individual institutions' own internal quality assurance systems and through government initiatives to upgrade quality, since quality is the prime concern in the mutual recognition of degrees. As a starting point, the

quality institutions identified by the NAAC can play a part in the process of mutual recognition of degrees in India.

One of the intentions of establishing the NAAC was to tackle the quality problem in Indian higher education institutions, where the states, rather than the central government, exercise major responsibility for higher education. Thus, the NAAC functions as a national quality maintenance actor across the higher education sector. This strength of the NAAC can be demonstrated, for instance, by the cooperation between the Department of Collegiate Education of the Government of Karnataka State and the NAAC.

The state has made the accreditation of a higher education institution by the NAAC a prerequisite for grants from the state government and has signed a Memorandum of Understanding with the NAAC. The purpose of the memorandum is to provide a policy framework, direction, coordination and leadership for disseminating "Total Quality Management" in all the institutions leading up to NAAC accreditation in the state in the long term. By so doing, the state has implemented quality assurance work at state level. The state has mandated all the higher education institutions within the territory to establish in-house quality assurance departments. In this state alone, there are 86 government colleges and 277 private aided colleges which have been accredited by the NAAC, 1 government college and 5 aided colleges which have been given autonomy, 22 government colleges which have been identified for NAAC assessment.

Sources

Association of Indian Universities (AIU) (1996) *Handbook of Engineering Education*, AIU, New Delhi.

Association of Indian Universities (AIU) (1999) *Directory of Universities and Colleges of India*, AIU, Reliance Publishing House, New Delhi.

Association of Indian Universities (AIU) (2002) *Universities Handbook (29th Edition)*, AIU, New Delhi.

Bhan, Sonja (2002) *India: The Private Sector Emerges in Higher Education*, World Education News & Reviews (WENR), New York.

Boston College Center for International Higher Education (2006) *International Higher Education*, published quarterly (journals), Massachusetts.

Bhushan, Sudhanshu and Anupama Bhatnagar (2005) *Country Paper – India*, Papers presented at eighth Session of the Regional Committee Meeting for the Regional Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific.

Clark, Nick (2006), *Education in India*, WES – World Education News & Reviews (WENR), New York.

Department of Collegiate Education (2005) *Annual Administrative Report 2004-2005*, Government of Karnataka, Bangalore.

Gnanam, A. (2002) *New Providers in Higher Education in India, Case study for UNESCO*.

Government of Karnataka State (2001) *The Karnataka State Universities Act, 2000*, Bangalore.

Government of Karnataka State (2006) *Report of the Taskforce on Higher Education – Shaping Education in Karnataka 2004*, Bangalore University Press, Bangalore.

Ministry of Human Resource Development (1999) *Discussion Paper on Internationalization of Education, Department of Education*, Ministry of Human Resource Development, Government of India, New Delhi.

National Assessment and Accreditation Council (NAAC) and Commissionerate of Collegiate Education of the Government of Karnataka (2003) *Total Quality Management for Tertiary Education*, NAAC, Bangalore.

National Assessment and Accreditation Council (NAAC) (2004) *Quality Higher Education and Sustainable Development – NAAC Decennial Lectures 1994-2004*, NAAC, Bangalore.

National Assessment and Accreditation Council (NAAC) (2004) *Best Practices in Higher Education – Report of the National Conference Organized by NAAC*, NAAC, Bangalore.

National Assessment and Accreditation Council (NAAC) (2004), *A Decade of Dedication to Quality Assurance*, NAAC, Bangalore.

National Board of Accreditation (NBA) and All Indian Council for Technical Education (2004) *Manual of Accreditation (Revised Edition, January – 2004)*, NBA, New Delhi.

National Council for Teacher Education (NCTE) (2004) *Indian Journal of Teacher Education*, Volume 1, Number 2, December, 2004, NCTE, New Delhi.

National Office of Overseas Skills Recognition (NOOSR) (1996) *Country Education Profiles - India – A Comparative Study, (Second Edition)*, Department of Employment, Education and Training, Australian Government Publishing Service, Canberra.

National Office of Overseas Skills Recognition (NOOSR) (2005) *Country Education Profiles - India – A Comparative Study, (Second Edition)*, Department of Employment, Education and Training, Australian Government Publishing Service, Canberra.

Patil, Jagannath (2006) *Quality Assurance in Indian Higher Education*, WES – World Education News & Reviews (WENR), New York.

Powar, K.B. (2001) (Ed.) *Internationalization of Higher Education*, Association of Indian Universities (AIU), New Delhi.

Sharma, Kavita A. (2003) *50 Years of University Grants Commission,* University Grants Commission, New Delhi.

Singh, Sutinder (1995) *Indian Universities-On the Upswing*, World Education News & Reviews (WENR), Volume 8, Number 2, Spring 1995, New York.

Srikantewara, Sri K. & Dr. Siddalingaswamy (2004) *Report of the Taskforce on Higher Education – Shaping Education in Karnataka, 2004*, Government of Karnataka, Bangalore.

Stella, A (2001) *Quality Assessment in Indian Higher Education: Issues of Impact and Future Perspectives*, Allied Publishers, New Delhi.

Stella, A. and Gnanam, A. (2001) *Assessment and Accreditation in Indian Higher Education: Issues of Policy and Prospects*, Books Plus, New Delhi.
Stella, A. and Gnanam, A. (2002) *Assuring Quality and Standards in Higher Education: The contemporary Context and Concerns*. Allied Publishers, Bangalore.

Sweeney, Kallur, Smith, Maryak, Oliver and Stedman (1998) *PIER World Education Services – India – Special Report 1997 (1998)*, AACRAO and NAFSA, Washington, DC.

University Grants Commission (UGC) (2002) *X Plan of University Grants Commission*, UGC, New Delhi.

University Grants Commission (UGC) (2004) *Consolidating the Past and Strengthening the Future*, UGC, New Delhi.

University Grants Commission (UGC) (2005) *Annual Report 2003-2004 of the University Grants Commission*, UGC, New Delhi.

University Grants Commission (UGC) (2005) *List of Proposals for the Grant of Deemed University received and screened upto 17. February 2005*, UGC, New Delhi.

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Web links/Official links

General Information

http://www.education.nic.in – Ministry of Human Resource Development

http://www.education.nic.in/secondary.htm - Ministry of Human Resource Development – Department of Higher Education

http://www.ugc.ac.in – University Grants Commission (UGC)

http://www.naac-india.com – National Assessment and accreditation Council NAAC (accreditation)

http://www.ugc.ac.in/inside/pcouncil.html - List of Professional Councils

http://www.ugc.ac.in/inside/university.html - List of Universities

http://www.education.nic.in/htmlweb/deemeduniv.htm - List of Deemed Universities

http://www.ugc.ac.in/inside/college.html - List of Colleges

http://www.education.nic.in/htmlweb/collegedir/collegedir.asp - List of All India Directory of Colleges

http://www.ugc.ac.in/inside/fakealerts.html - List of Fake Universities

http://www.education.nic.in/htmlweb/ugc_degrees.htm - Degrees Specified and Recognized by The University Grants Commission

http://www.education.nic.in/htmlweb/dist_inst.htm - List of Institutions Offering Courses on Distance Mode and Open Universities in India

http://www.ugc.ac.in/policy/modelcurr.html - Model Curriculum

http://www.ugc.ac.in/policy/regulation.html - UGC Regulations/Notifications

http://www.aiuweb.org/index.aspx - Association of Indian Universities

http://www.ncert.nic.in/welcome1.asp - The National Council of Educational Research and Training (NCERT)

http://www.7thsurvey.ncert.nic.in/ - 7th All India School Education Survey

http://cbse.nic.in – Central Board of Secondary Education

http://www.ugc.ac.in/pub/index.html#newsletter - UGC Newsletters

http://aei.dest.gov.au/AEI/CEP/Default.htm - NOOSR

http://www.unesco.org/iau/onlinedatabases/index.html - International Association of Universities

http://www.education.nic.in/htmlweb/main.htm - Website to Department of Education, Government of India

http://goidirectory.nic.in/education.htm - National Informatics Centre – List of educational councils, commissions, offices, etc.

http://www.education.nic.in/htmlweb/edusta.htm - Educational Statistics

http://www.education.nic.in/htmlweb/iamrstat.htm - Educational Statistics Complied by Institute of Applied Manpower Research (IAMR)

http://www.indiaeducation.ernet.in/insitutions/PROFILE.ASP?no=U00041 – Indira Gandhi National Open University

Quality Assurance/Accreditation

http://www.ugc.ac.in/policy/quality_assurance.html - Quality Assurance -UGC

http://www.naac-india.com – National Assessment and Accreditation Council (NAAC)

http://www.aiuweb.org/index.aspx - Association of Indian Universities

http://www.aicte.ernet.in – All Indian Council for Technical Education

http://www.ncte-in.org/index.asp - National Council for Teacher Education

http://mohfw.nic.in/kk/95/ib/95ib0301.htm - Indian Nursing Council

http://www.ccimindia.org - Central Council of Indian medicine

http://www.dciindia.org - Dental Council of India

http://www.mciindia.org – Medical Council of India

http://www.pci.nic.in – Pharmacy Council of India

Ranking:

http://www.library.uiuc.edu/edx/rankint.htm - College and University Rankings

http://aei.dest.gov.au/AEI/CEP/Default.htm - NOOSR

http://www.naac-india.com - NAAC

Appendix 1: Apex Institutions and Functions

A list over statutory bodies which regulate the standards of education in various professional fields

Institution	Date of Establishment	Important Functions
University Grants Commission	UGC Act, 1956	Co-ordination and maintenance of standards of university education
National Accreditation and Assessment Council	Established in 1994 under 12cc of UGC Act, 1956	• To maintain standards of quality • Function of accrediting and assessing institutions of liberal arts, science and other disciplines • Recently teacher education institutions to be assessed • NAAC has accredited 2088 colleges and 113 Universities in India in 10 years since its establishment • Not obligatory
All India Council for Technical Education	AICTE Act, 1987	Planning, co-ordination, promotion of quality and maintenance of standards of technical education system in the country
National Board of Accreditation	Established in 1994 Under section 10(u) of AICTE Act, 1987	• To assess standards of quality of education • Assessing and accrediting institutions imparting technical education in India • Recommending body regarding recognition and de-recognition of institutions
National Council of Teacher Education	NCTE Act, 1987	• Statutory body to develop norms and standards of teacher education • Powers to give recognition to teacher education institutions offering various courses • Planned and co-coordinated development of teacher education institutions

Institution	Date of Establishment	Important Functions
Medical Council of India	Established in 1934, operational by new act in 1956	• Maintenance of uniform standards of medical education • Recommendation for recognition/de-recognition of medical qualification of medical institutions of India or foreign countries • Registration of doctors • Mutual recognition of medical qualifications of foreign countries
Dental Council of India (DCI)	1948	1. To regulating the Dental Education, Dental Profession, Dental ethics in the country 2. To recommend to the Government of India to accord permission to start a Dental College, start higher course and increase of seats in a college. 3. To inspect Dental Colleges and institutions.
Indian Nursing Council (INC)	1947	1. To regulate and maintain the uniform standard of training for Nurses, Midwives, Auxiliary Nurse-Midwives and Health Visitors. 2. The Council prescribes the syllabus and regulations for various nursing courses. 3. To inspect Nursing Schools and Examination Centers.
Council of Architecture (COA)	Architects Act 1972	1. To register Architects 2. To prescribe standards of education, recognition of Indian and foreign qualifications 3. To prescribe standards of practice to be complied with by the practising architects. 4. To regulate the standards of education and practice of profession throughout India besides maintaining the register of architects.
Bar Council of India (BCI)	1961	1. Empowered to make rules to discharge its functions under the Advocates Act 1961. 2. Rule-making power to laying down guidelines for the standards of professional conduct and etiquette to be observed by advocates. 3. To specify the conditions subject to which an advocate must have the right to practice and

Institution	Date of Establishment	Important Functions
		the circumstances under which a person must be deemed to practice as an advocate in a court. 4. To make rules regarding the duties that an advocate must perform in his interaction with colleagues in the profession. 5. It can only specify conditions that are applicable at the post-enrolment stage and not at pre-enrolment stage.
Pharmacy Council of India (PCI)	1948	1. To regulate the profession of pharmacy whereas it is expedient to make better provision for the regulation of the profession and practice of pharmacy. 2. To control Pharmacy education and profession in India up to graduate level.
Indian Council for Agriculture Research (ICAR)		1. To establish various research centers to meet the agricultural research and education needs of the country. 2. Activity involve in human resource development in the field of numerous agricultural universities spanning the entire country.
Rehabilitation Council of India (RCI)	1992	1. Prescribes that any one delivering services to people with disability, who does not possess qualifications recognized by RCI, could be prosecuted. 2. It has twin responsibility of standardizing and regulating the training of personnel and professional in the field of Rehabilitation and Special Education
Central Council of Homeopathy (CCH)	1973	1. To evolve uniform standards of education in Homoeopathy. 2. The registration of practitioners on the Central Register of Homoeopathy will ensure that medicine is not practiced by those who are not qualified in this system, and those who practice, observe a code of ethics in the profession
Central Council of Indian Medicine (CCIM)	1970	1. It prescribes minimum standards of education in Indian Systems of Medicine viz. Ayurved, Siddha, Unani Tibb. 2. It maintains a central register on Indian

Institution	Date of Establishment	Important Functions
		Medicine and prescribes standards of professional conduct, etiquette and code of ethics to be observed by the practitioners 3. It Provides and maintain the list of colleges recognized by the Council for education in Indian Systems of Medicine.
Veterinary Council of India	1984	1. To specify the minimum standards of veterinary education required for granting recognized veterinary qualifications by veterinary institutions 2. To recognize foreign veterinary qualifications
Distance Education Council	1991	To promote open university/distance education institutions, its coordinated development, and the determination of its standards.

Appendix 2: UGC Specification of Degrees

Appendix 3: UGC(Minimum Standards of Instruction for the Grant of the First Degree through Formal Education)Regulations

University Grants Commission
New Delhi

UGC(Minimum Standards of Instruction for the Grant of the First Degree through Formal Education)Regulations, 2003.

(In supersession of Notification No. F.1-117/83(CP) dated 25th November 1985, Notification No.F.1-117/83(CPP) dated 30th May 1986 and Notification No.F.1-117/83(CP) dated December 1998)

In exercise of the powers conferred by clause (f) of sub-section (1) of Section 26 of the UGC Act 1956 (No. 3 of 1956), the University Grants Commission makes the following Regulations, namely:

1. **Short title, application and commencement:**

   1.1 These Regulations may be called the University Grants Commission (Minimum Standards of Instruction for the Grant of the First Degree through Formal Education) Regulations, 2003.

   1.2 These shall apply to all universities established or incorporated by or under a Central Act, a Provincial Act, or a State/Union Territory Act, and all institutions recognized by or affiliated to such Universities and all institutions deemed to be universities under Section 3 of the UGC Act 1956.

   1.3 These shall come into force from the date of their publication in the official Gazette.

2. **Admission:**

   2.1 No student shall be eligible for admission to a first degree programme in any of the faculties unless he/she has successfully passed the examination conducted by a Board/University at the +2 level of schooling (either through formal schooling for 12 years, or through open school system) or its equivalent.

   2.2 The admission shall be made on merit on the basis of criteria notified by the university, keeping in view the guidelines/norms in this regard issued by the UGC and other statutory bodies concerned and taking into account the reservation policy issued by the government concerned from time to time.

   2.3 Student enrollment shall be in accordance with the academic and physical facilities available keeping in mind the norms regarding the student-teacher ratio, the teaching-non-teaching staff ratio, laboratory,

library and such other facilities. The in-take capacity shall be determined at least six months in advance by the university/institution through its academic bodies in accordance with the guidelines/norms in this regard issued by the UGC and other statutory bodies concerned so that the same could be suitably incorporated in the admission brochure for the information of all concerned.

2.4 Depending upon the academic and physical facilities available in the institutions, the university may allow an institution to admit a certain number of students directly to the second year of a first degree programme, if the student has either (a) successfully completed the first year of the same programme in another institution, or (b) already successfully completed a first degree programme and is desirous of and academically capable of pursuing another first degree programme in an allied subject.

3. Teacher:

3.1 No person shall be appointed to a teaching post if he/she does not fulfill the minimum qualifications prescribed for recruitment as per the Regulations in this regard notified from time to time under Section 26 (1)(e) of the UGC Act 1956.

3.2 Every teacher shall participate in teaching, which may include any or all of the following: lectures, tutorials, laboratory sessions, seminars, fieldwork, projects and other such activities.

3.3 Every teacher shall also give general assistance to students in removing their academic difficulties; and participate in the invigilation and evaluation work connected with tests/examinations; and take part in extra-curricular, co-curricular and institutional support activities as required.

3.4 The workload of a teacher shall take into account activities such as teaching, research and extension, preparation of lessons, evaluation of assignments and term papers, supervision of fieldwork as also guidance of project work done by the students. The time spent on extension work, if it forms an integral part of the prescribed course, shall count towards the teaching load. The total workload and the distribution of hours of workload for the various components shall be in accordance with the guidelines issued by the UGC and the other statutory bodies concerned in this regard from time to time.

4. Working Days:

4.1 Every university enrolling students for the first degree programme shall ensure that the number of actual teaching days on which classes such as lectures, tutorials, seminars, and practicals are held or conducted is not less than 180 in an academic year, excluding holidays, vacations, time set apart for completing admissions and time required for conduct of examinations.

4.2 The timetable on working days shall be so drawn up that the physical facilities are adequately utilized and not used only for a few hours in a day.

4.3 The total periods provided for contact teaching shall not be less than 30 hours a week.

4.4 The time provided for practicals, field work, library, utilization of computer and such other facilities, shall not be less than 10 hours a week.

5. Syllabus:

5.1 Depending upon the curricular pattern, whether the university follows the annual system, the semester system or the trimester system, the entire syllabus of the programme shall be divided into suitable courses spread evenly for the duration of the programme.

5.2 The university shall endeavour to introduce a cafeteria approach by working out the division of the entire syllabus of the programme into courses in such a manner that a student can choose the number of courses according to his/her requirements.

5.3 The university shall not only lay down the syllabus for each course, but also the manner of its implementation, namely, through lectures, tutorials, laboratory sessions, seminars, field work, projects and such other activities.

5.4 Depending upon its nature and level, a course may be assigned a certain number of credits. The credits assigned to the various courses shall also be indicated in the respective syllabuses. The system of credits shall be in accordance with the guidelines of the UGC and other statutory bodies concerned.

5.5 The syllabus for each course shall also indicate the scheme of evaluation/ examination.

5.6 The students shall be encouraged to study some part of the syllabus themselves and shall be given assignments, so as to make use of the library, laboratory, internet and such other faculty.

5.7 The total workload on a student shall also be adequate so as to provide him/her sufficient academic involvement.

5.8 The minimum number of lectures, tutorials, seminars and practicals which a student shall be required to attend for eligibility to appear at the examination shall be prescribed by the university, which ordinarily shall not be less than 75% of the total number of lectures, tutorials, seminars, practicals, and any other prescribed requirements.

6. Examination and Evaluation:

6.1 The university shall adopt the guidelines issued by the UGC and other statutory bodies concerned from time to time in respect of conduct of

examinations.

6.2 The units of evaluation, namely, tests, seminars, presentations, class performance, field work, and the like and the weightage assigned to each of such units in respect of each course shall be determined by the appropriate academic body of the university, and shall be made known to the students at the beginning of the academic session of the year, the semester or the trimester, as the case may be.

6.3 The nature of final examination, whether written or oral or both, in respect of each course shall also be made known to the students at the beginning of the academic session.

6.4 There shall be continuous sessional evaluation in each course in addition to trimester/semester/year-end examinations, and the weightage for sessional evaluation and examination in respect of each course shall be prescribed by the appropriate academic body, and made known to the students at the beginning of the academic session.

6.5 If the university follows grading system, it shall work out and adopt a table of conversion of grades into percentages and vice-versa.

6.6 If the fieldwork or project work is prescribed as an integral part of a course, the weightage assigned to it should reflect the time spent on it.

6.7 The question papers for the examinations shall be set in such a manner as to ensure that they cover the entire syllabus of the concerned course.

6.8 The tests and examinations shall aim at evaluating not only the student?s ability to recall information, which he/she had memorized, but also his/her understanding of the subject and ability to synthesize scattered bits of information into a meaningful whole. Some of the questions shall be analytical and invite original thinking or application of theory.

6.9 While the actual process of evaluation shall be confidential, the system of evaluation shall be sufficiently transparent, and a student may be given a photocopy of his/her answer paper, if requested as per procedure laid down in this regard.

7. Physical Facilities:

7.1 Every university shall lay down the norms in respect of classrooms, laboratories, library, sports and health facilities, hostel accommodation, canteen/ cafeteria and such other facilities. All the institutions admitted to its privileges shall adhere to the same. While prescribing the norms for such facilities as a condition for affiliation, the university shall keep in view the guidelines/norms issued by the UGC and other statutory bodies concerned.

7.2 The lecture classes shall normally have not more than 60 students, unless, in special cases, the institution has accommodation for larger classes and makes suitable audio-visual arrangements for effective lecturing accompanied by tutorial classes.

7.3 For tutorials, a group shall not ordinarily be more than 20 students.

7.4 For laboratory sessions, the size of a group shall depend upon the size of the laboratory, its type related to the specificity of the subject, the facilities available including the possibility or otherwise of controlling and supervising a number of students simultaneously through a central control panel, and such other devices. The ideal number of students for a normal laboratory session in subjects like Physics, Chemistry and Biology is 15. The number for Computer lab, Language lab, etc. may be higher or lower, depending upon the factors referred to above.

7.5 The norms laid down by the concerned statutory body shall be followed in the case of laboratories in the professional courses.

8. Award of Degrees:

8.1 No student shall be eligible for the award of the first degree unless he/she has successfully completed a programme, of not less than three years duration and secured the minimum number of credits prescribed by the university for the award of the degree.

8.2 The degree to be awarded may be called the bachelor?s degree in the respective discipline in accordance with nomenclature specified by the UGC under Section 22 (3) of the UGC Act.

9. Information:

Every university shall furnish to the UGC information relating to the observance of the provisions of these Regulations in the form prescribed for the purpose. The information shall be supplied to the UGC within 60 days of the close of the academic year.

(Prof. Ved Prakash)
Secretary

Appendix 4: Recognition of degrees from India in Denmark, Norway and Sweden

Norway

India	Norway
Completion of the first year of university education	Access to higher education
Bachelor Degree (3 years)	Recognized as equivalent to 120 ECTS credits at Bachelor degree level
Bachelor Degree (4 years)	Recognized as equivalent to Bachelor Degree / 180 ECTS credits
Bachelor of Education (1 year) before 1993	Not recognized as higher education
Bachelor of Education (1 year) 1993-1998	Recognized as equivalent to 30 ECTS credits at Bachelor Degree level
Bachelor of Education (1 year) 1999-now	Recognized as equivalent to 60 ECTS credits at Bachelor Degree level
Bachelor Degree (3 years) + Master Degree (2 years)	Recognized as equivalent to Bachelor Degree plus 60 ECTS credits at Master Degree level
Bachelor Degree (4 years) + Master Degree (2 years)	Recognized as equivalent to Bachelor Degree /180 ECTS credits plus Master Degree /120 ECTS credits, in total 5 years higher education / 300 ECTS credits
Bachelor Degree (3 years) + Master Degree (2 years) + Ph.D. (3years)	Recognized as equivalent to Bachelor Degree /180 ECTS credits plus Master Degree /120 ECTS credits plus 120 ECTS credits at Doctoral Degree level
Bachelor Degree (4 years) + Master Degree (2 years) + Ph.D. (3years)	Recognized as equivalent to Bachelor Degree /180 ECTS credits plus Master Degree /120 ECTS credits plus Ph.D. / 180 ECTS credits

Denmark

India	Denmark
Higher/senior certificate (12 years of schooling) + 1 years of higher education	Access to higher education
Bachelor of Arts/Science/Commerce (pass) /3 years	2 years of Danish Bachelor Degree
Bachelor of Arts/Science/Commerce (honours) /3 years	2 years of Danish Bachelor Degree, eventually Danish Bachelor Degree
Bachelor of engineering/4 years	Danish Bachelor Degree or Danish Professional Bachelor Degree within engineering
Master of Arts/Science/Commerce /1 to 2 years	4 years of Danish Candidatus Degree, eventually a Danish Candidatus Degree in case of a written thesis
Master of Engineering /2 years	Danish Candidatus Degree
Postgraduate Diploma (PGD) /1 to 2 years	Danish Diploma or Master Degree if program is recognized by AICTE
Master of Philosophy	Individual assessment
Ph.D / 3 years	Danish Ph.D. Degree
Denmark is considering giving access to higher education to applicants having a higher/senior Secondary Education certificate (12 years of schooling) from CBSE and CISCE with a result of minimum 65%. This is due to the general recognition of the quality of the curriculum and examination organized by the two boards.	

Sweden

India	Sweden
3-Year Bachelor Degree	högskoleexamen
4-Year professional degree	kandidatexamen
4-Year engineering degree	högskoleingeniörexamen

Master's Degree	Kandidatexamen or magisterexamen med ämnesdjup
Master of Philosophy	No natural counterpart
Doctor Degree	doktorexamen
Some problems that might arise when evaluating the Indian degrees in the Swedish context is that the structure differs between the education systems in the two countries so that an Indian bachelor degree might cover many different subjects. Another problem is that the second bachelor degree, such as the Bachelor of Education, does not necessarily make any difference in the evaluation statement. This happens when the first degree is compared to a högskoleexamen. Then an extra year does not add enough depth in one subject to make it possible to change to comparison to a kandidatexamen.	

Appendix 5: Participants

Danish ENIC/NARIC
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Experts from Norwegian educational institutions
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Center for International Cooperation in Higher Education – SIU

Rita Kumar, Adviser
The Norwegian University of Science and Technology - NTNU

Appendix 6: Study Tour Programme

Programs of NORRIC's Study Visit to Pakistan and India September 24 – October 5 2005

Islamabad 26 – 27 September

Monday 26 September
9.30 - 11.30. - Visit to Higher Education Commission (HEC)
Introduction of HEC Programs by Prof. Dr. Mukhtar Ahmad, Member (O&P), HEC

11.45 - 12.30 Federal Board of Intermediate & Secondary Education (FBISE) Cdre. (R) Muhammad Sharif Shamshad, Chairman

13.30 - 14.00 Meeting with Secretary of Federal Education Minister

Tuesday 27 September
9.00 - 11.30 - Visit to Higher Education Commission (HEC)
1. Presentation by Head of Norwegian Delegation
2. Presentation by Dr. Khawaja Azam Ali, vice-Chancellor, Quaid-i-Azam University (QAU)
3. Presentation by Prof. Dr. S. Altaf Hussain, vice-Chancellor, Allama Iqbal Open University (AIOU)
4. Presentation by Mr. Justice (Retd) Khalil-ur-Rehman, rector, International Islamic University (IIU)
5. Presentation by Vice-Admiral Fayyaz-ur-Rahman, rector, Bahria University (BU)
6. Presentation by Dr. Anees Ahmad, vice-Chancellor, Riphah International University (RIU)

11.45 – 18.30 Visit to higher education institutions
1. Meeting with Prof. Dr. Khawaja Azam Ali, vice-Chancellor + visit of different Departments at QAU
2. Meeting with Prof. Dr. S. Altaf Hussain, vice-Chancellor + visit of different Departments at AIOU
3. Group I: Meeting with Mr. Justice (Retd) Khalil-ur-Rehman + visit of different Departments at IIU
4. Group-II: Meeting with vice-Admiral Fayyaz-ur-Rahman, Rector + visit of different Departments at BU
5. Meeting with Dr. Anees Ahmad, vice-Chancellor + visit of different Departments at RIU

New Delhi 28 September – 3 October

Thursday 29 September
1. 10.00 – 11.30 Presentation by Shri Ashok Ganguli, director, Central Board of Secondary Education
2. 11.30 – 13.00 Presentation by Prof. A.K.Dubey, registrar, University of Delhi

3. 13.00 - 13.30 Presentation by Dr. Kavita A. Sharma, principal + visit to different departments at Hindu College (an affiliated college to University of Delhi)
4. 15.30 – 17.30 Presentation by Prof. Damodar Acharya, chairman & Prof. R.A. Yadav, vice-chairman, All India Council of Technical Education

Friday 30 September
10.00 – 10.30 Meeting with HRD Mrs. Anupama Bhatnagar, Deputy secretary, Department of Education, Government of India
10.30 – 11.30 Meeting with Royal Norwegian Embassy, Inge Tveite, Counsellor
12.00 – 15.30 Presentation by Dr. S. Chandrasekaran, coordinator for evaluation + visit to different departments at Jawaharlal Nehru University
15.30 – 17.30 Presentation by Dr. Shardindu, Chairperson, National Council for Teacher Education

Saturday 1 October
10.30 – 12.00 Presentation by Prof. M.A. Beg, registrar + visit to the hospital of the university at Jamia Hamdard University

Monday 3 October
1. Presentation by Pro Vice Chancellor and Prof. A.S. Narang, registrar + visit to departments, laboratory and television studio at Indira Gandhi National Open University
2. Presentation by Prof. Ved Prakash, secretary general at University Grants Commission
3. Presentation by Prof. Dayanand Dongaonkar, secretary general at Association of Indian Universities

Bangalore 4 – 5 October

Tuesday 4 October
9.00 – 12.00 Presentation by Prof. V.S. Prasad, director, + visit to the library and offices at National Assessment and Accreditation Council (NAAC)
13.00 – 16.00 Presentation by Prof. Rahul Pandit, director (International relations Cell), Indian Institute of Science

Wednesday 5 October
Group 1: 9.00 – 12.00 Presentation by Vice-Chancelor + visit to different departments at Bangalore University
Group 2: 9.00 – 10.30 Presentation by Prof. N. Sundararajan, principal + visit to different departments at Sri Bhagavan Mahavir Jain College
10.30 – 12.00 Presentation by Samt. Sobha Nambisan IAS of Department of Education, principal secretary, Government of Karnatakar State