FINAL REPORT OF THE OVERSIGHT COMMITTEE ON THE IMPLEMENTATION OF THE NEW RESERVATION POLICY IN HIGHER EDUCATIONAL INSTITUTIONS

CONTENTS

PREFACE

CONCEPTUAL FOUNDATIONS OF KNOWLEDGE SOCIETY – "EXPANSION: INCLUSION AND EXCELLENCE IN HIGHER EDUCATION"

This report seeks to expand the provision of Higher Education while at the same time ensuring social inclusion and academic excellence. A society which excludes a significant section of its population from access to higher education cannot be said to be providing equality of opportunity. Equally, if academic excellence gets compromised in the process of expansion, it would lose its competitive edge in the emerging knowledge society – an edge which can propel India into a position of global leadership.

Looking at the demographic profile of developed nations and the shrinking proportion of their workforce to their population, the next 25 years offer to the world youngest workforce (i.e. India's), a unique opportunity to provide workforce supplementation to labour-deficit countries. This unique global opportunity requires nurturing of our competitive edge. India, today, is truly at the crossroads. If excellence gets compromised, we will lose the competitive edge and what is being hailed as "demographic dividend" could very easily become "demographic disaster". It is, therefore, very important that we get our act right and deliver equity in a manner that enhances excellence.

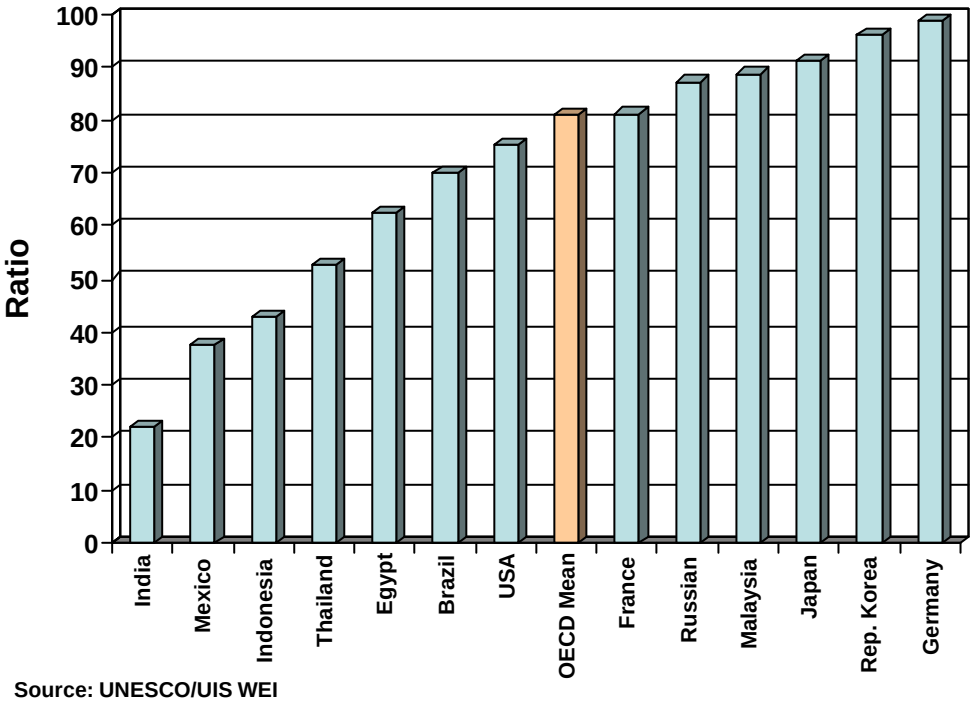
Some thought has gone into outlining the premises of the action plan for expanding access to higher education by getting the policies of bringing about "social inclusion" to resonate in unison with the "pursuit of excellence".

The context of Expansion:

Though India prides itself as being one of the largest reservoirs of technically trained manpower (in gross numbers), the reality is that 35% of India's population in age group of 20-25 aspires for higher education but the present enrolment into higher education, is only 9% to 11% as against 45% - 85% in the developed countries.

- Only a small **proportion of our population (21%) graduate from the upper secondary level.** The position in India in comparison with other countries is shown below.
- The drop-off in the graduation rates between the secondary and the upper secondary is extremely large and appears to result from a perception that a high school degree does not significantly add to the benefits arising from a secondary school degree.
- Until the above perception is changed, in order to meet the skill requirements of our country, it is necessary to ensure that we enroll a higher proportion of our high school graduates in higher education. In order to do so, it becomes necessary to both have a relatively higher percentage of college/university seats compared to high school students than we have at the moment and also to tap a wider social class than occurs now.

Upper Secondary Graduation Ratio



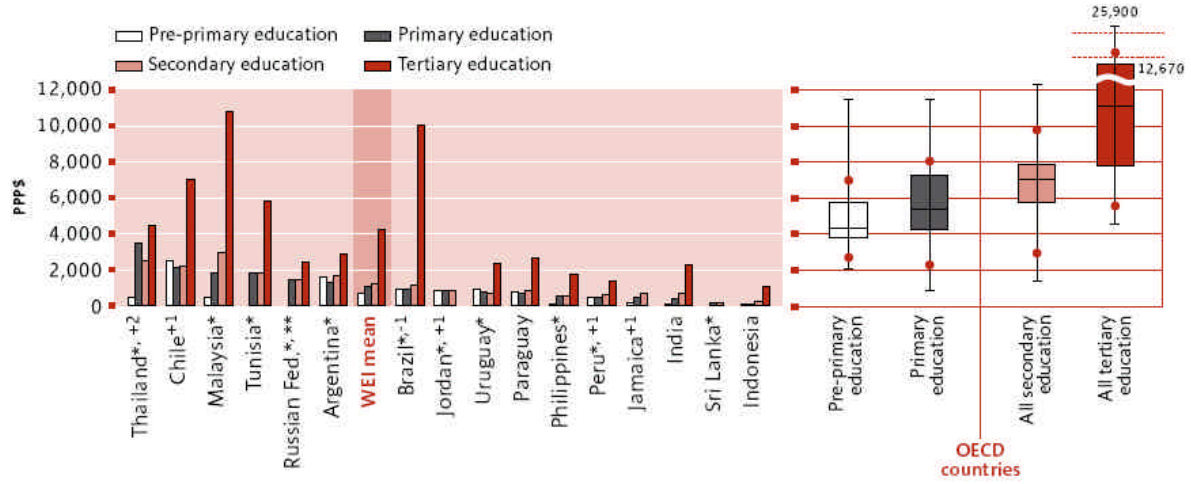
Source: UNESCO/UIS WEI

Enrollment apart, the expenditure on higher education in India is seriously inadequate:

- In terms of **per student expenditure on educational institutions at tertiary level** (adjusted by PPP) India spends much less than other countries, as can be seen in the chart below.

Expenditure per student in PPP$ by level of education

Annual public and private expenditure per student in US$ converted into PPP, by level of education, 2003



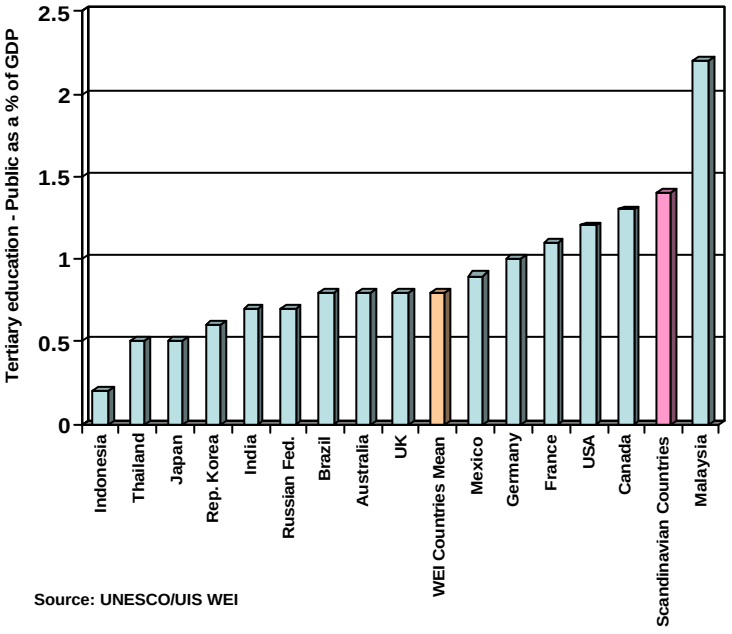
Countries are ranked in descending order by expenditure per primary student.

Notes: * Public institutions only.
** Based on public expenditure only.
+2 Data refer to 2005; +1 Data refer to 2004; -1 Data refer to 2002.

Sources: UNESCO Institute for Statistics, Table 3.a; OECD countries: OECD (2006).

- **In terms of public expenditure on tertiary education as a percentage of GDP,** the comparison with other countries is evident from the chart given below.

Expenditure by Level of Education and Source of Funds

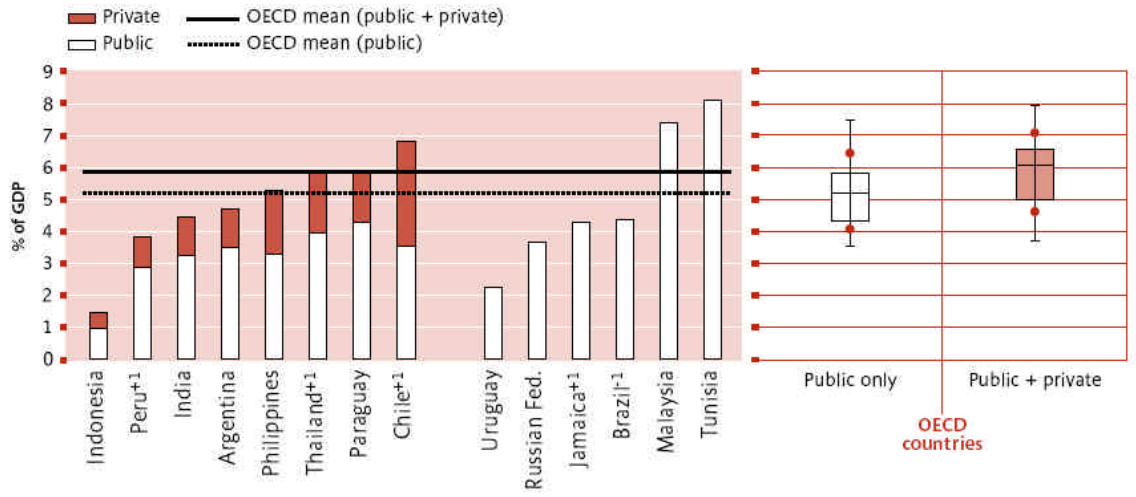


Source: UNESCO/UIS WEI

- India does not perform too badly on this measure, but the presence of private expenditure is too low for complacency as can be seen from the following chart. The role of private expenditure on tertiary education needs to be enhanced, by suitable policy measures by creating an enabling environment.

Expenditure on educational institutions as a percentage of GDP

Total expenditure on educational institutions by public and private sources of funds, 2003



Countries are ranked in ascending order by expenditure.

Notes: Countries reporting public expenditure only are shown separately to the right.
+1 Data refer to 2004; -1 Data refer to 2002.

Sources: UNESCO Institute for Statistics, Table 2.a.i; OECD countries: OECD (2006).

The Philosophical Foundations of a Just Society – The basis **for social inclusion -** Our constitution has laid the foundations of a social order–based on "Justice, Liberty, Equality and Fraternity". Through the Directive Principles of State Policy, it beckons us to create a level playing field where "socially and educationally backward" people, hitherto excluded, get equality of opportunity for developing themselves to their full potential. While Equality, Justice and Fraternity provide the foundations of a just social order, Liberty provides the underlying principle to bring out the best in individual members of the society. While Justice relates to the society and Liberty relates to the individual, the former paves the way to establishing an inclusive society and the latter finds the path for the individual in pursuit of excellence. In expanding the access to higher education, we have tried to establish the balance between these two cardinal principles of Justice and Liberty.

A society is just, when all its components are in a state of harmony. A society which keeps a large section of its people in a state of denial or deprivation or where all its citizens do not enjoy equality of opportunity to develop themselves can never be in a state of stable equilibrium. Pythagoras has said *"Justice as a square number is in perfect harmony since it was composed of equal parts and the number of its parts is equal to the value of each part. A number is square, so long as the equality of its parts remains. When this equality is breached the State must intervene . . . .* **"**

Providing assured access to higher education is the best way to empower the excluded sections of society and is the most painless way to redress their historic wrongs. In words of **Plato**, Education enables us to *"prepare a citizen, by the light of knowledge and not by rule of custom, to perform the duties of his station*," and further that Education "*seeks to tune in the feelings and imagination of youth, as one would tune a lyre with many vibrating strings*." Education enables us to bring the individual "to resonate in unison with society".

Individuality as the spring of originality and the fountain head of excellence: Since society, as well as State is a "*Partnership in all science, a partnership in all art, a partnership in every virtue and in all perfection*[1]**"** – the excellence it can attain at the collective level, is only a sum of the excellence that has been attained by its individual members. **"***In the ultimate analysis, therefore, man is the measure of all things*" (Protagoras).

To make Education relevant to the individual, it must be able to bring out the best in him. Liberty is the essential precondition to bring out the individuality in its fullest spontaneity. This means that human beings should be -

(a) Free to form and hold their own opinions.

(b) Free to express and propagate their opinions unless such expression results in instigation to a mischievous act.

(c) Free to act on these opinions, as long as such acts do not harm others, or obstruct others in enjoyment of their Liberties.

[1] Edmund Burke in "Reflections on the Revolution in France – 1789

The famous doctrine of Wilhelm von Humboldt (Sphere and Duties of Government) is that "*the end of man is the highest and most harmonious development of his powers to a complete and consistent whole*". Individuality thus proceeds to bring out the best in an individual and thus distinguishing one from the other. **Individuality is, therefore, the foundation of diversity**. "*Individual vigour and manifold diversity when combined, result in originality.*[2]**"** Originality is the source of innovation.

Genius can only blossom if it is allowed to breathe freely. Persons of great creativity and inventiveness are "ex vi termini" - more individual than others and their indomitable spirit cannot and should not be compressed and contained in conventional moulds. In this sense, eccentricity should not be subjected to scorn or reproach, since it is the so called eccentrics, who see things differently, who are capable of discovering new things. Originality is the one thing which unoriginal minds cannot understand. "All good things that exist are the fruits of someone's originality and a lot which still remains to be discovered will require originality. This brings us to the ultimate aim of education, i.e., to foster innovation and to generate wealth in the form of intellectual property in a Knowledge Society."

Higher Education, therefore, has a social purpose of bringing the individual in harmony with society and getting citizens to perform to the best of their potential. Equally, Education enables the individual to expand himself and it brings out the best in him. Education empowers him to be original, creative and inventive. As Carl Jung has said, *"the creation of something new is not accomplished by the intellect but by the play instinct acting from inner necessity. The creative mind plays with the objects it loves"*. Creativity and innovativeness are at a premium in a knowledge society. The difference between a knowledge society and a typical capitalist society is that "Knowledge expands as it is shared" whereas "Capital shrinks with sharing". Collaboration and not competition, thus becomes the keystone in a knowledge society and it is in this sense that the knowledge era is also called the era of networked intelligence.

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[2] John Stuart Mill, the high priest of Individuality - in his essay "On Liberty"

This report seeks to go into the nitty gritty of implementation of "27% reservation for OBCs, without any decline in the present level of seats available to the general category students." Implicit in this mandate is an expansion in annual intake level of 54%. An effort was made to attempt a single phase implementation in one go, beginning with the year 2007-08. After very detailed deliberations with the five groups and also with heads of the concerned institutions, it became quite evident that such an expansion of intake without commensurate expansion of faculty and infrastructure, would definitely result in dilution of quality of standards already reached by these institutions and would be self-defeating. In the Interim Report the Committee had recommended phased implementation setting institutionwise timelines, taking their constraints into account.

Chapter I of the Final Report focuses on the first lot of recommendations of the Oversight Committee made in the Interim Report – where it was recognized that looking into complexities of faculty related and infrastructural issues, a detailed exercise will need to be carried out institution-wise providing for phasing and timelines of implementation of reservation, with concomitant investments in faculty and infrastructure keeping pace to ensure that there is no dilution of quality. The final submissions on faculty, infrastructure and other issues made by the five groups are contained in Chapter II. The roadmap for implementation of 27% reservation as envisaged by us is given in Chapter III. This gives institution-wise phasing and timelines of implementation, as well as Oversight Committee's final set of recommendations on faculty, infrastructure issues and other core issues. Chapter IV summaries the issues connected with implementation. These are issues which have a bearing on implementation viz., treatment of 'creamy layer', threshold limits, cut offs, autonomy for excellence etc. Chapter V lays the foundations of an "84-institution-ICT-Network" to help our students to gain access to the "knowledge world in cyber space". The Chapter provides a plan for deployment of state-of-the-art communications and information technology, to create "Networked Digital Campuses" and "Virtual Classroom and Laboratories" and "Digital Libraries". Chapter VI provides details of financial implications and Chapter VII suggests a way forward.

A simpler way of implementing reservations was to steamroll our way through, in the name of social equity, regardless of its impact on quality and excellence. We have

deliberately chosen the more difficult way which delivers equity in a manner that enhances excellence, i.e., by making concomitant investments in faculty & infrastructure and by bringing much needed governance related reforms involving institutional, financial and administrative autonomy and process reengineering in our Higher Educational Governance system. It is easy to equalize by "mindlessly levelling everyone down to lowest-common-denominator". Our effort has been to create an upward moving equalization process- where the disabilities are overcome by the erstwhile excluded sections and the system brings out the best in them.

Besides the many out-of-the-box innovative ideas concerning faculty and infrastructure related issues, I believe three of our recommendations, which cut horizontally across the five groups, are critical to the establishment of the goal of an "**inclusive society, in pursuit of excellence"**. These four programmes are considered by the Oversight Committee to be integral to the above vision and should be considered to be inseverable part of our core recommendations.

a) The project for networked digital campuses – in 84 Central Government institutions.
b) National Merit Scholarship Scheme for 100,000 SC/ST/OBC and other economically backward class students through classes IX-XII.
c) The scheme for tapping and retention of potential researchers "National Science Talent for Research and Innovation" (10,000 fellowships of Rs.100,000 per annum) right through undergraduate to Ph D progrmme.
d) Expansion of post matric scholarship for SCs/STs to cover OBCs, with outlays being doubled during the XI Plan.

We have to acknowledge that the challenges facing us in the entire education sector are enormous and in the Tertiary Education Sector these can be met, only if both public and private funding to educational institutions increases several fold. The need for private participation in this mammoth task cannot be over-emphasized but market forces themselves cannot deliver justice. The relative importance of public vs. private funding is brought out very strongly by **Joseph Stiglitz** when he opined **"I had studied the failures of both markets and governments, and was not so naïve to think that the**

government could remedy every failure. Neither was I so foolish as to believe that markets by themselves solved every societal problem. Inequality, unemployment, pollution: these are all important issues in which Government has to take an important role."

"Expansion, Inclusion and Excellence" has been our credo. They have remained the abiding theme guiding all our deliberations. I will be failing in my duty if the Oversight Committee does not acknowledge the source of inspiration for our deliberations. It is the Prime Minister's speech giving the overpowering vision of the "need to create the second wave of nation building" which has inspired us in our thoughts and deliberations. I would also like to express my gratitude to Hon'ble HRD Minister, Sri Arjun Singhji for his affection and guidance right through.

New Delhi
30th September 2006

(M Veerappa Moily)
Chairman, Oversight Committee &
Chairman, Administrative Reforms Commission

CHAPTER I

INTRODUCTION

1.1. The **Oversight Committee** was constituted under the orders of the Prime Minister on the 27th May 2006 to look, *inter alia*, into the following aspects and submit its report by the 31st August 2006 (subsequently extended to the 30th September 2006).

1) "Implementation of 27% reservation for the OBCs in institutes of higher learning and
2) Assessment of additional infrastructure and other requirements for increasing the overall availability of seats to a level so that the present level of seats available to the general category students does not decline."

1.2. In addition, the PMO constituted five specialist groups to go into detail "about the course of action to be adopted for giving effect to the implementation of reservation in a time bound manner". The details about the Oversight Committee and the five groups and their composition are at Annexures II, III and IV.

1.3. The Oversight Committee, under the chairmanship of **Shri M. Veerappa Moily,** held five preliminary meetings and separate discussions with the Heads of the Groups. A *Theme Paper* was prepared and placed on the website.

1.4. The Interim Report laid down certain principles based on which the Committee decided to carry out its mandate. These principles are being recounted below:

a) The Oversight Committee would cover such institutions of higher learning which have already implemented reservations for SCs/STs.

b) Institutions primarily engaged in R&D will not fall within this ambit.

c) The programme and guidelines drawn up by the Oversight Committee, with the help of the Groups, would act as a point of reference and help the other Ministries of the Govt. of India to take such measures to introduce reservations in institutions of higher learning from the academic year 2007-08.

d) The moving spirit behind the new reservation policy will be **expansion, inclusion and excellence.** The Central Institutions will keep these three principles in view while determining threshold marks for admission of OBC students. Institutions like IITs, IISc, IIMs and AIIMS and other such exceptional quality institutions can only maintain their standards if they are given full autonomy in determining the threshold limits for admissions and in inducting top-class faculty.

e) 'Cut-offs' for institutions other than the IITs, IIMs, IISc & AIIMS, may be placed somewhere midway between those for SC & ST and the unreserved category, carefully calibrated so that the principles of both *equity* and *excellence* can be maintained.

f) While expanding the intake, due care should be taken to ensure that capacities are expanded in subjects or areas in which there are opportunities on account of employability.

g) The students who currently tend to get excluded must be given every single opportunity to raise their own levels of attainment, so that they can reach their true potential. For this, Government must invest heavily in creating powerful, well-designed and executed remedial preparatory measures, to enable these students in overcoming their initial handicap. These guiding principles provided the bedrock of premises of action on which the Oversight Committee framed its recommendations in the Interim Report.

h) In its first meeting, on the 30th May 2006, the Committee took note of the fact that the main problem lies in increasing the strength of the faculty, especially in institutions where there is already a backlog of vacancies. It was felt that while the 'core compensation' package of academic staff should not be altered to avoid disturbing the existing parities, there was a case for providing non-monetary incentives and, for institutions of excellence, the remuneration system should be made more flexible so as to attract talent and to make the faculty appointments more attractive.

1.5 It is essential to reproduce the relevant portions of the Interim Report laying down the recommendations relating to faculty and infrastructure issues in order to provide the background for the further deliberations of the Committee that have led to this Final Report:-

I. RECOMMENDATIONS ON ACADEMIC AND FACULTY RELATED ISSUES.

30. The Directors of the Institutes and Group Members expressed concern about the availability of suitable personnel for filling up of additional faculty positions, in such a short span of time. In many institutions and in many departments particularly in IITs and IIMs, it has not been possible to fill up even the existing vacancies. It was, therefore, the unanimous opinion of all groups that very innovative methods will have to be found for retaining or re-engaging the existing personnel, particularly those who have either superannuated during recent years or those who are likely to superannuate during the next three years. This would be in addition to making optimal use of the existing faculty. The suggestions received in this regard have a wide range and need to be given serious consideration:-

(a) Raising the age of superannuation to 65 years (across the Board) and/or

(b) Engaging retiring faculty on a 3-year contract, extendable up to the age of 70 years. Renewal to be based on a review of performance by the Academic Boards.

Suggestion (b) should be operational for a minimum time period required to achieve a smooth transition to expanded intake, till the regular faculty gets into position.

31. The Oversight Committee considers expansion, inclusion and excellence as the moving spirit behind the new reservation policy. The institutions of higher learning should keep these three principles in view while determining threshold marks for admission to OBC students. While expanding the intake, due care should be taken to ensure that capacities are expanded in subjects or areas in which there are opportunities on account of employability.

32. The Committee recognizes that those institutions of higher learning which have

established a global reputation (e.g. IITs, IIMs, IISc, AIIMS and other such exceptional quality institutions), can only maintain that if the highest quality in both faculty and students is ensured. Therefore, the committee recommends that the threshold for admission should be determined by the respective institutions alone, as is done today, commensurate with the level of its excellence.

33. As regards 'cut-offs' in institutions other than those mentioned in para 7, these may be placed somewhere midway between those for SC/ST and the unreserved category, carefully calibrated so that the principles of both equity and excellence can be maintained.

34. The Committee strongly feels that the students who currently tend to get excluded, must be given every single opportunity to raise their own levels of attainment, so that they can reach their true potential. The Government should invest heavily in creating powerful, well designed and executed remedial preparatory measures to achieve this objective fully.

Other recommendations are:-

(a) Engaging visiting or adjunct faculty – on attractive terms;
(b) Assigning additional workload to existing faculty, within reasonable limits so that there is no dilution. For motivating the existing faculty additional compensation may be contemplated;
(c) Amendment in eligibility criteria for faculty recruitment. The requirement of a Ph.D qualification could be considered for waiver by the concerned academic authority where a faculty member has enough relevant experience, like a practicing manager, for example. The Committee is aware that the UGC have made certain relaxations in respect of faculty qualifications.
(d) Autonomy may be given to the relevant Academic Bodies of each institution to undertake the special recruitment process in a speedy manner.
(e) Autonomy will also have to be given in respect of the compensation packages to be offered in contractual engagements. Here, providing residential facilities to faculty on contract or reemployed teachers is recommended so as to retain qualified teachers.
(f) The Committee would support the stand of the Engineering and Technology Group in their specific demands for a one time joining allowance/relocation grant, jobs for spouses and assured admission in schools to children so as to reduce attrition among competent faculty.
(g) The Committee shares that Group's proposal for developing an action

plan for Quality Improvement and upgrading the skills of the existing faculty. The establishment of a National Centre for Faculty Development and also conducting sequential summer programmes for faculty development would provide affirmative action with long term benefits.

(h) The teacher student ratio (TSR) varies from Group to Group and the Committee would like to categorically state that enhancement of faculty should be based on a rational and viable teacher student ratio. An unreasonable and nonviable teacher student ratio would impede the process of implementing the reservation policy. .

(i) Suitable policy changes in enhancement of the retirement age, contractual appointments, modifications in eligibility conditions for faculty, lifting of the ban on recruitment of non-academic staff, provision for adequate support staff will have to be effected immediately so that the special recruitment process can be set in motion.

(j) The Medical Council of India (MCI) will have to expedite changes in their norms relating to teacher student ratio and other academic norms (relating to number of UG seats) to ensure implementation of OBC reservation from the coming academic year.

II. RECOMMENDATIONS ON INFRASTRUCTURAL AND DEVELOPMENTAL ISSUES.

35. In order to ensure that the additional student intake will be matched by commensurate infrastructural facilities, a plan for developmental expansion has been submitted by each Group. Subsequently, each institution will prepare a Detailed Project Report giving timelines and required budgetary outlays. It is suggested that the Committee makes the following recommendations relating to infrastructure:

1. In general, all institutions will need additional physical space, construction of new college and hostel buildings, additional laboratories, library facilities, books, furniture and equipment, computer laboratories, campus wireless connectivity, video conferencing and IT enabled classrooms. Optimal use should also be made of the existing infrastructure.
2. The other major elements of the capital cost would be relating to residential accommodation for teaching staff and in some special cases non-teaching staff.
3. The procedures involved in setting up additional infrastructure especially civil works and procurement of furniture and equipment, have laid down administrative procedures.
4. Necessary delegation of powers and increased autonomy will have to be provided so as to ensure that the necessary infrastructure will be put in position at the earliest.
5. The Committee recommends the setting up of an **Empowered Committee** in each institution and Ministry, which will give the necessary approvals and sanctions.
    - This Empowered Committee can be constituted in each institution as per their relevant governing norms. The Empowered Committee

should be given clear cut terms of reference with appropriate powers of delegation.

- The delegation must ensure that the local unit will have the powers to issue necessary administrative orders for undertaking civil works and procurement of furniture and equipment.
- The Empowered Committee will also supervise the implementation of the development plan, observance of timelines and quality aspects of the projects' execution.
- Suitable policies will have to be notified for establishment of the Empowered Committee and also for delegation of financial and administrative powers.

6. Each Group has broadly laid down the infrastructural requirements. However, the specific requirements institution-wise will also have to be taken into account, which would figure in the final report. The Groups should attempt preparation of institution-wise DPRs.

7. There will be an **Implementation Monitoring Committee** in the Planning Commission, which will review the progress in the implementation of the OBC reservation plan and the execution of DPRs.

8. Wherever land acquisition is necessary for setting up the infrastructure, appropriate administrative orders will have to be issued for removing any bottlenecks and for placing the process on a fast track.

9. In order to ensure that the process of expansion commences immediately, release of adequate proportionate funds will have to be effected. This is essential for timely implementation.

10. The additional infrastructure will involve sizable non-recurring capital costs and also recurring costs, which are being projected separately.

11. Each group will have to submit an institution-wise detailed project report drawing up the master plan for expansion.

36. **The Oversight Committee is committed to its mandate that the implementation process needs to commence from 2007-08. However, certain issues and constraints have been posed by the institutions through the groups concerning the time frame for implementation, especially the possibility of sudden expansion leading to loss of merit and excellence. These issues and practical constraints will be addressed by the Oversight Committee, institution wise, on receipt of the Groups' Final Reports**.

1.6 Although it was not required to do so, the **Oversight Committee** submitted its **Interim Report** to the Prime Minister on the 27th July in order to assess the

dimensions of the issues involved and facilitate legislation proposed by the Ministry of Human Resource Development (MHRD), consequent to the notification of the Constitution (Ninety-Third Amendment) Act, 2005. This Notification brought into effect the 104th Amendment to the Constitution in January this year to provide, *inter alia*, reservations for students coming from the socially and educationally backward classes of citizens, popularly known as other backward classes **(OBCs)** (Annexure XIV). The Interim Report, the preliminary financial statements that were attached thereto and the Theme Paper can be seen at Annexure I.

1.7. Consequent to the submission of the Interim Report, the Oversight Committee decided to hold detailed discussions with each of the specialist groups where representatives of all the institutions of higher learning were invited to attend so that their viewpoint could be heard and understood. Meetings were accordingly held with the Groups on the 17th, 18th, 21st and 22nd August, 2006. In order to obtain a broader perspective on some of the issues involved, the Committee invited experts from each discipline for discussions on the Groups' final reports on the 28th and 29th of August, 2006.

CHAPTER II

SUMMARY OF GROUP DELIBERATIONS: ACADEMIC, INFRASTRUCTURAL AND PROCEDURAL ISSUES

2.1 Background and Introduction.

2.1.1. Five subject-specific Groups dealing with different disciplines were constituted to provide inputs to the Committee on the various factors involved in implementation of the 27% reservation for the socially and educationally backward classes in the Institutes of higher learning.

i) Engineering and Technology Institutions
ii) Management Institutions
iii) Central Universities
iv) Medical Education Institutions
v) Agriculture Education Institutions

2.1.2 The Committee and the Groups' objectives are to carry out a quantitative expansion of 54% in the educational institutions without compromising on the quality of education. A summary of the groups' Final Reports is given below. Annexures V-IX contains the Final Reports of each group.

2.1.3 The *Interim Report* covered the recommendations of each Group in respect of both academic and infrastructure related issues. Most of the recommendations made by the Groups in their Interim Reports on the two areas of faculty and infrastructure requirements have been reiterated by the Groups in their Final Reports also. To put it in a nutshell, on the academic side, the main constraints has been the faculty crunch in almost all the disciplines. Several suggestions have been made such as enhancement in the retirement age, contractual appointments, better pay packages, perks, housing facilities, visiting and adjunct faculty, and intensive recruitment drives etc to tackle the crisis.

2.1.4 As regards infrastructure development such as college buildings, classrooms, library, laboratories, IT facilities, hostels and residential housing for faculty, this will take time. To expedite the process of construction and development of these

physical facilities, the Groups have recommended fast track procedures in obtaining clearances, setting up Empowered Committees in each institution with requisite delegated powers and relaxation in the long drawn and time-consuming chain of control. These recommendations have not been repeated in this summary mainly to avoid a duplication of each Group's earlier Interim Report presentation. The minimum eligibility 'cut-off' for admissions, admission thresholds and remedial courses to enhance the academic quality of below average learners has also been covered in the Interim Report.

2.1.5 The Institution wise rollout of 27% OBC reservation in student intake (Phased implementation) have been provided at Chapter-III (Tables 1A -1E).

2.1.6 The financial projections are also included separately in Chapter VI. These projections are both group wise and institution specific.

2.2. Technology/Engineering Institutions.

2.2.1 The Technology Group covers 39 Engineering Institutions such as the IITs, IISc, NITs, NITTTRs, IIITs and other Central Government Technical Institutions. The existing student strength in all the institutions taken together is 97,685. The additional increase in students to accommodate the 54% increase would be 53,315 over a period of three years.

2.2.2 The Teacher Student Ratio of the IITs and IISc has been worked out by the group at an average of **1:9** whereas for the other institutes it has been worked out at **1:12.** The total requirement of faculty of the Technology Group in the first year is **1850.** (Total requirement in 3 years-5700)

2.2.3 The Group maintains that all institutions will implement the 54 % increase of seats in a phased manner over a period of three years. There are a few institutions which have special problems such as:

1. NITs - Silchar, Srinagar, Jalandhar, Hamirpur
2. IITs - Mumbai, Roorkee & Guwahati
3. IIITs - Allahabad, Jabalpur & Gwalior.

2.2.4 However, these Institutes will also have to make all out efforts to fit into the three year time- frame and the Ministry of Human Resource Development and the Planning Commission would be monitoring the progress. The Ministry's help can be sought to remove bottlenecks.

2.2.5 The Group has suggested several measures so as to attract and retain competent faculty and also to reduce or avoid attrition. The suggestions include aggressive fast track recruitment strategies, attractive packages including handsome joining allowance, relocation grant. One major issue in faculty issues flagged by the Group relates to the anomalies in the cadre ratio. They have demanded flexibility in the cadre ratio of Professor: Reader: Assistant Professor/Lecturer. Similarly, it was felt that lateral entry to faculty positions in the different cadres would be an extremely helpful policy.

2.2.6 On the Non-faculty side, the Engineering institutions have an inverted pyramid scenario with a top heavy staff position and vacant positions at the bottom rungs. The introduction of VRS might serve to correct this situation.

2.2.7 The optimal use of the existing infrastructure, adoption of innovative teaching technologies such as virtual classrooms, technology enabled learning etc, has been suggested to widen educational access. So also, the shift system could be optimally explored.

2.3 Management Institutions

2.3.1 The Management Group covers seven institutions, the IIMs and NITIE. The reservation policy is to be confined to the regular two year PG diploma programmes and not extended to in-career courses like Fellow programmes, Executive Development programme etc. The total additional intake for the two year PG programmes has been indicated by the group as 966 per year. An incremental requirement of 139 faculty has been projected, worked on a Teacher Student Ratio of **1:14.** (Based on actual faculty in position)

2.3.2 In order to tackle faculty constraints the Group has suggested several measures. The IIMs and NITIE should be allowed to fill faculty positions immediately on a teacher to student ratio of 1:7. (TSR Norm suggested) It is desirable that no

separate sanctions will be required and the respective Boards of Governors may be given the authority to recruit extra faculty. There must be flexibility in the cadre ratio so that, irrespective of the level; faculty can be recruited as per the availability. The retirement age is to be enhanced to 65 years with immediate effect, subject to an internal review by the Boards. The Institutes be given the freedom to reemploy retired faculty up to the age of 70 years as per terms and conditions laid down by each Board. Flexibility to decide upon the compensation package of the faculty including the provision of leased housing is suggested. The respective Board of Governors may be empowered to take a decision regarding the compensation package. Going beyond the normal salary structure, attractive pay packages may be offered. Such teachers who are willing to take up an additional workload may be suitably compensated as determined and approved by the respective Board of Governors. In functional subject areas, the requirement of Ph. D as a mandatory condition must be waived. Instead, one has to attract practicing managers from the relevant industries for the functional areas.

2.3.3 The issue of infrastructure expansion is equally challenging to the Management Institutions. IIM Ahmedabad and Kozhikode have land requirements and at existing locations the scope of further expansion is very limited. The possibility of developing satellite campuses in these two cases is being explored. The setting up of Empowered committees was recommended by the Management Group too. Relaxation in administrative procedures has been considered essential for efficient development of infrastructure.

2.4 Central Universities Group

2.4.1 The Central Universities Group covers 17 Central Universities. Of these, the Banaras Hindu University, the University of Delhi and the University of Allahabad have affiliated colleges. Four of the Universities, the Babasaheb Bhimrao Ambedkar (BBA) University, Nagaland University, Mizoram University, and the North East Hill University (NEHU) follow a policy of providing 50% reservation or more (SCs in the case of BBA, STs for the others). The Manipur University provides for 33% reservation for STs. Application of OBC reservation would have to be limited keeping these parameters in mind, as the existing reservation in these institutions will not undergo any change.

2.4.2 The existing student intake aggregating in all the Universities is 92011. The projected intake due to the increase is an additional 49,686. The Teacher Student ratio based on the tables of existing students and teachers indicates a wide variation from 1:3 to 1:13. Effectively, **the TSR** may be calculated at **1:12** as indicated during the Group deliberations. The faculty requirement has been projected by them as 6609.

2.4.3 The Central Universities face a severe faculty shortage as even existing positions which are sanctioned have been lying vacant. The group has indicated several mechanisms to meet the requirement of additional teaching staff, such as re-employing teachers after retirement on the basis of their performance and after a process of screening; contractual appointments of outstanding teachers in various faculties; internal adjustment of giving additional teaching load and reasonable honorarium per lecture.

2.4.4 In addition to these measures, specific recommendations have emerged during the Group's deliberations such as increasing the frequency of the National Eligibility Test (NET) and making it on-line. Another suggestion was to provide Teaching Assistantships to meritorious students pursuing doctoral programmes. The Central Universities have indicated a manpower requirement of non-teaching staff as 6476. The ban of recruitment of non-teaching staff has to be lifted and priority has to be given for filling of academic support and technical staff positions. The regular office staff can become an outsourced activity.

- Special mention of the pattern of seats allocation followed by **JNU** needs to be made. It has been in practice for long and it protects both regional representation and representation of both the SC/ST and OBC learners. **(Annexure XIII)**
- The Delhi University has also made out a case for the use of distance education as complementary to the formal system in imparting higher to larger numbers. An ideal combination of the formal and Distance education methodologies for meeting the enhanced intake has been suggested.

2.5 Medical Education Group

2.5.1 The Medical Group comprises 11 institutions which are directly supported by Central Government funding and covers the MBBS, MS/MD, Diploma and other courses. The Group has proposed a total increase of **564** seats. The increase in UG seats is 191 whereas the PG seats are 373.

2.5.2 The enhanced intake in the UG seats has a constraint of seat limitation of 150 per institution. Accordingly, the Lady Hardinge Medical College and VMMC will not be able to enhance their seats without changes in the MCI regulations.

2.5.3 As far as PG admissions are concerned, the ratio of teaching beds to number of seats, which is presently 1:1, will also have to undergo a change to meet the enhanced requirement.

2.5.4 For any enhancement of seats in PG admissions of Medical Colleges, an appropriate application needs to be made to the Supreme Court so as to approve the additional intake. For admissions to the academic year 2007-08, the last date of submission of this application had lapsed on the 31st May, 2006. (This matter was taken up with the Health Minister by the Chairman of the Oversight Committee).

2.5.5 For the purpose of increasing the seats to the required level, it would be necessary to make the MCI norms more flexible, and overcome constraints on increasing infrastructure and faculty & staff strength. There has to be a Government Order for relaxation in the statutory norms for increase in the number of seats for UG and PG courses as advocated by the Medical Council of India and the National Board of Examinations.

2.5.6 Although the MCI had suggested some relaxations for facilitating the filling of PG seats in various subjects, on the basis of the deliberations held during a meeting on 21st June 2006, it was subject to the condition that against the very same units of teaching personnel and infrastructure, no other post graduate courses under any other streams like the National Board of Examinations, College of Physicians and Surgeons etc. would be permitted. Institutions which cater to only PG training should also be asked to start UG Courses as well.

2.5.7 The Medical Group has proposed a faculty increase of 285. This data is only partial as AIIH&PH, Kolkata, Safdarjang Hospital and VMMC, New Delhi have not indicated their requirements.

2.5.8 It has been suggested that each Institute forms a separate Task Force to look into the affairs of Faculty requirements, specifically to meet the provision of 27% reservation for OBCs. It may also look into alternative measures, within a stipulated period, to deal with the current crisis.

2.5.9 In the meantime the Group advised relaxation in the age of retirement / superannuation of the faculty across the board to 65 years, which should be applicable to the existing faculty so as to evolve uniformity among the educational institutions. Also, suggested is the reappointment of retired Faculty, including doctors from the Medical Branch of the armed forces, who retire much earlier. The Group has put forward recommendations for bringing changes in the prescribed norms, with regard to patients' beds; student-teacher ratios and flexibility in student intake limits for medical institutions which may suitably be incorporated.

2.5.10 With regard to infrastructure development, the issues raised in the Interim Report have been repeated in their Final report. The additional requirements, in terms of infrastructure, vary for each institution. The AIIMS and LHMC have indicated the acquisition of land for construction of hospital buildings. The LHMC pointed out that the Ministry of Urban Development and Poverty Alleviation has specifically stated that no permission will be given for construction of any structure. The CPWD in 2003 declared most of the buildings as unsafe and dangerous. LHMC has submitted a Comprehensive Redevelopment Plan to the Ministry of Health and Family Welfare. The issues of land acquisition and other clearances will require intervention at the highest level.

2.5.11 The improvement and expansion of infrastructure is mainly needed in respect of additional lecture halls, seminar rooms, demonstration and practical rooms, laboratories, hostel facilities for boys & girls, equipments, furniture and library facilities. Also, residential accommodation for residents, staff is a major need.

2.5.12 Administrative and Financial powers need be delegated to the heads of these institutions to take necessary action in this regard.

2.5.13 To initiate advance administrative and financial action, provisions should be made to accommodate 5% of the total estimated expenditure for preparatory activities through appropriate entries in the Revised Estimates 2006- 07. Also, an appropriate authority may be established in MOHFW for taking desired administrative action followed by financial approval.

Suggestions by the Medical Education Group

2.5.14 A mechanism should be developed to reorganize education in all the medical institutions across the country to equip them for the development of medical faculty and this has to be a continuous process. They further recommended that a **separate Task Force** be formed to look into the affairs of Faculty requirements in the country, on a long term basis. These institutions should also develop a mechanism of optimum utilization of available and newly appointed faculty and staff. This would be facilitated if a **Human Resource Consultant** is posted in each of these institutes who should also develop measures to absorb the allocations within the time frame stipulated. This would require appointing of a **Financial Consultant** in each of these institutions.

2.6 Agriculture Education Group

2.6.1 The Agriculture Group covers 5 national institutes which include the ICAR, Deemed Universities and the Central Agricultural University. The institutions offer courses ranging from the Undergraduate level to the Post Graduate which are in certain cases integrated to the Ph. D level.

2.6.2 The total existing intake is 825 students and the additional increase has been indicated as 454. The faculty in position is 1015 and an increase of 1087 has been proposed to meet the student increase. The Agriculture Group has made specific recommendations to attract faculty and a suggestion is the mandatory requirement of Ph. D as an essential qualification. This is to meet the research requirement of guiding PG and PhD students. The Teacher Student Ratio of 1:3 or 4 is only indicative as faculty is involved in extension and research activities.

2.6.3 As the recruitment process will take time, outstanding teachers who retired in the last three years and those who are retiring may be reemployed on contract,

initially for 3 years, renewable up to 70 years of age. The emoluments for contract have been suggested as previous emoluments drawn minus pension. Also, residential facilities would help to attract and retain competent teachers. The ASRB should also be given powers for special recruitment to meet this need within six months time frame.

2.6.4 The Agricultural Universities have a residential campus which is mandatory to the programme and hence the requirement of a student hostel is a major infrastructure constraint. The Group has made suggestions for dispensation of approval from the Municipal Corporations and the Urban Arts Commission. The relaxation in procedure for procuring equipment is also necessary.

2.7 Proposed course of action

2.7.1 In order to get an Institution-wise road map for the implementation of the 27% OBC reservation and the resultant 54% capacity expansion, the institutions were advised to prepare a Detailed Project Report (DPR). The DPR was envisaged to bring out the institution's preparedness for the enhanced intake along with the details of requirements of additional faculty and infrastructure and also to project the estimated recurring and non-recurring expenditure.

2.72 The format of the DPRs for the Technology, Management and the Central Universities Group is given at Annexure XI-A. The DPR guidelines for the Medical Institutions were devised by the Group itself and are attached at Annexure XI -B. As far as the Agriculture Education Group is concerned, a separate set of guidelines was issued by the Group itself and each institution has submitted its requirements and expansion plan within the broad framework. As per the Committee's stipulation, the Institutions have been sending in their DPR's.

2.7.3 The DPR's submitted by the institutions will be scrutinized on the basis of the following parameters:

(a) Teacher Student Ratio.
(b) Recurring Cost per student per year and
(c) Non-recurring cost per student.

2.8 Teacher Student Ratios - An analysis

A Broad Consolidated Table of Teacher Student Ratios (TSR) – (as calculated by the groups, based on different parameters)

S.No.	Name of Group	Name of the Institutions/ discipline	Proposed TSR by the Group
1.	Technology	IITs & IISc	1:9
		Others	1:12
2.	Management	All	1:7
3.	Central Universities	Tertiary	No details specified
		Professional	
4.	Medical	UG	1:15
		PG	1:1
5.	Agriculture	UG	1:3-4
		PG	1:3-4

2.8.1 One of the ambiguous areas in faculty recruitment for all the Groups is the TSR. The nature of courses offered and the levels at which the course is conducted makes it difficult to arrive at a common ratio.

2.8.2 In spite of the lack of clarity, the Committee felt that the normative Teacher Student Ratio would be difficult to achieve within a short span of time. The very fact that sanctioned positions are lying vacant aggravates the target of approximation to the ideal teacher student ratio. In the given circumstances, a more rational and viable teacher student ratio needs to be accepted for the transitional three year period for the implementation of the OBC reservation.

2.8.3 During the discussions with the specialist Groups and also with the experts, a clearly divided opinion emerged. On the one hand, an ideal TSR was described as essential to the quality and excellence in higher education, on the other hand, comparisons were made with the international scenario where top B-Schools have a much higher TSR and where the quality of classroom delivery is in no way compromised. While balancing both the views, one needs to be futuristic. Considering that the ICT enabled classrooms are becoming a reality, we need to break away from the age–old teaching methods to more innovative and participative teaching strategies. This would mean employing Multi-media learning

methodologies, Video-conferencing, satellite-based teaching, extensive use of computers in virtual mode which are both learner- centric and interactive. This will move towards making our learners both independent and autonomous and finally expose the student to an enriched learning experience.

2.8.4 **Accordingly, the TSR in respect of each group as applied in financial calculation in Chapter VI, has been decided after careful consideration of the TSRs proposed by each group.** While doing so the existing TSRs, the existing faculty shortage, the impact of the recommendation to provide teaching assistance to relieve the faculty from the minutiae, the impact of the ICT connectivity etc. has been taken into account. The TSRs proposed by the groups have had to be scaled down to doable norms.

CHAPTER III

RESERVATION FOR OBCS (27%): A ROADMAP FOR IMPLEMENTATION

3.1 **The implementation of the 27 per cent reservation of seats for OBCs in the Institutes of Higher Learning will begin from 2007- 08. All discussions, deliberations, and consultations with respect to the time-frame of the implementation, show that there are several constraints and difficulties in the implementation of the 27 per cent quota at one go. But, it should be possible to fully implement the same within the span of a maximum of three years. However, there are also instances where some Institutes have shown willingness and capacity to implement the Reservation Policy within less than a three-year period. The Oversight Committee, therefore, recommends that all Institutes of Higher Learning should fully implement the quota within the maximum period of three years and all such Institutes which have capacity to implement within less than three-year period, say within one year or within two years, should do so without taking recourse to the three-year time frame. Under no circumstances can the time-limit of three years for implementation be overstepped.**

3.2 Given below is the Group-wise and Institution specific phased implementation roll-out of reservation and total intake***. (Chapter III Tables 1-A to 1-E follows*)**:

Chapter-III: Table – 1-A

Engineering/Technology Group

Institution-wise Rollout of 27% OBC Reservation and Rollout of Total Intake - 54%.

S. No.	Name of the Institution	Rollout of Reservation for 27% OBCs Phased implementation			Rollout of Total Intake-54%		
		2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
	Part A						
1.	Indian Institute of Technology, Delhi	9%	9%	9%	18%	18%	18%
2.	Indian Institute of Technology, Kanpur	9%	9%	9%	18%	18%	18%
3.	Indian Institute of Technology, Guwahati	9%	9%	9%	18%	18%	18%
4.	Indian Institute of Technology, Kharagpur	9%	9%	9%	18%	18%	18%
5.	Indian Institute of Technology, Roorkee	9%	9%	9%	18%	18%	18%
6.	Indian Institute of Technology, Madras	9%	9%	9%	18%	18%	18%
7.	Indian Institute of Technology, Bombay	9%	9%	9%	18%	18%	18%
8.	Indian Institute of Science, Bangalore	9%	9%	9%	18%	18%	18%
	Part B						
1.	Motilal Nehru National Institute of Technology, Allahabad - 211004, UP	13.5%	13.5%		27%	27%	
2	Maulana Azad National Institute of Technology, Bhopal - 462007, MP	13.5%	13.5%		27%	27%	
3	National Institute of Technology, Calicut - 673601, Kerala	13.5%	13.5%		27%	27%	
4	National Institute of Technology, Durgapur - 713209, WB	13.5%	13.5%		27%	27%	
5	National Institute of Technology, Hamirpur - 177005, HP	9%	9%	9%	18%	18%	18%
6	Maulviya National Institute of Technology, Jaipur - 302017, Rajasthan	13.5%	13.5%		27%	27%	

S. No.	Name of the Institution	Rollout of Reservation for 27% OBCs Phased implementation			Rollout of Total Intake-54%		
		2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
7	Dr. B R Ambedkar National Institute of Technology, Jalandhar - 144011, Punjab	9%	9%	9%	18%	18%	18%
8	National Institute of Technology, Jamshedpur - 831014, Jharkhand	13.5%	13.5%		27%	27%	
9	National Institute of Technology, Kurukshetra - 136119, Haryana	13.5%	13.5%		27%	27%	
10	Visvesvaraya National Institute of Technology, Nagpur, MS	13.5%	13.5%		27%	27%	
11	National Institute of Technology, Patna - 800005, Bihar	13.5%	13.5%		27%	27%	
12	National Institute of Technology, Raipur - 492010, Chhattishgarh	13.5%	13.5%		27%	27%	
13	National Institute of Technology, Rourkela - 769008, Orissa	13.5%	13.5%		27%	27%	
14	National Institute of Technology, Silchar, Assam	9%	9%	9%	18%	18%	18%
15	National Institute of Technology, Srinagar - 190006, J&K	9%	9%	9%	18%	18%	18%
16	National Institute of Technology, Sardar Vallabhbhai National Institute of Technology, Surat - 395007, Gujarat	13.5%	13.5%		27%	27%	
17	National Institute of Technology, Surathkal - 575025, Karnataka	13.5%	13.5%		27%	27%	
18	National Institute of Technology, Tiruchirappli - 620015, TN	13.5%	13.5%		27%	27%	
19	National Institute of Technology, Warangal - 50604, AP	13.5%	13.5%		27%	27%	
20	National Institute of Technology, Agartala - 799055, Tripura	13.5%	13.5%		27%	27%	
	Part C						
1	National Institute of Technical Teacher's Training Research, Chandigarh	9%	9%	9%	18%	18%	18%

S. No.	Name of the Institution	Rollout of Reservation for 27% OBCs Phased implementation			Rollout of Total Intake-54%		
		2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
2	National Institute of Technical Teacher's Training Research, Kolkata	9%	9%	9%	18%	18%	18%
3	National Institute of Technical Teacher's Training Research, Chennai	9%	9%	9%	18%	18%	18%
4	National Institute of Technical Teacher's Training Research, Bhopal	9%	9%	9%	18%	18%	18%
5	National Institute of Foundry & Forge Technology, Ranchi	9%	9%	9%	18%	18%	18%
6	Indian Insititute of Information Technology, Allahabad	9%	9%	9%	18%	18%	18%
7	ABV Indian Institute of Information Teschnology & Management, Gwalior	9%	9%	9%	18%	18%	18%
8	Indian Insititute of Information Technology Design & Manufacturing, Jabalpur	9%	9%	9%	18%	18%	18%
9	School of Planning & Architecture, New Delhi	9%	9%	9%	18%	18%	18%
10	Indian School of Mines, Dhanbad	9%	9%	9%	18%	18%	18%
11	Sant Longowal Institute of Engineering & Technology, Longowal	9%	9%	9%	18%	18%	18%

Chapter-III: Table – 1-B

Management Institutions Group

Institution-wise Rollout of 27% OBC Reservation and Rollout of Total Intake - 54%.

Sl. No	Name of the Institution	Rollout of Reservation for 27% OBCs Phased implementation			Rollout of Total Intake- 54%		
		2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
1	IIM Ahmedabad	6%	7%	14%	12%	14%	28%
2	IIM Bangalore	7%	10%	10%	14%	20%	20%
3	IIM Kolkata	3%	15%	9%	6%	30%	18%
4	IIM Indore	4%	11.5%	11.5%	8%	23%	23%
5	IIM Kozhikode	4.5%	4.5%	18%	9%	9%	36%
6	IIM Lucknow	8%	10%	9%	16%	20%	18%
7	NITIE Mumbai	9%	9%	9%	18%	18%	18%

Chapter-III: Table – 1-C

Central Universities Group

Institution-wise Rollout of 27% OBC Reservation and Rollout of Total Intake - 54%.

Sl. No	Name of the Institution	Rollout of Reservation for 27% OBCs Phased implementation			Rollout of Total Intake-54%		
		2007-08		2008-09	2007-08		2008-09
		Arts, Social Sciences & Humanities	Others	Others	Arts, Social Sciences & Humanities	Others	Others
1	Banaras Hindu University*	27%	13.5%	13.5%	54%	27%	27%
2	University of Delhi*	27%	13.5%	13.5%	54%	27%	27%
3	Hyderabad University*	27%	13.5%	13.5%	54%	27%	27%
4	Jamia Millia Islamia*	27%	13.5%	13.5%	54%	27%	27%
5	JNU*	27%	13.5%	13.5%	54%	27%	27%
6	Pondicherry University*	27%	13.5%	13.5%	54%	27%	27%
7	Visva Bharati*	27%	13.5%	13.5%	54%	27%	27%
8	Assam University*	27%	13.5%	13.5%	54%	27%	27%
9	Tezpur University*	27%	13.5%	13.5%	54%	27%	27%
10	Maulana Azad National Urdu University*	27%	13.5%	13.5%	54%	27%	27%
11	M.G Antarashtriya Hindi Vishwavidyalaya*	27%	13.5%	13.5%	54%	27%	27%
12	University of Allahabad*	27%	13.5%	13.5%	54%	27%	27%
	Part B						
13	NEHU**						
14	Nagaland University**						
15	Mizoram University**						
16	Babasahab Bhimrao Ambedkar University**						
17	Manipur University***						

* **The Universities will implement 27% reservation for OBC in the first year in Arts, Humanities and Social Sciences disciplines. For other disciplines it would be phased over a period of two years, extendable by one more year to a maximum of three years, where unavoidable.**

** More than 50% reservation for SC and ST in these universities - Hence OBC reservation may not be implemented up to 27% reservation

*** 33% reservation for STs. Hence OBC reservation may not be implemented up to 27% reservation.

Chapter-III: Table – 1-D

Medical Institutions Group

Institution-wise Rollout of 27% OBC Reservation and Rollout of Total Intake - 54%.

Sl. No	Name of the Institution	Rollout of Reservation for 27% OBCs Phased implementation			Rollout of Total Intake - 54%		
		2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
1	AIIH&PH, Kolkata*	9%	9%	9%	18%	18%	18%
2	AIIMS, New Delhi*	9%	9%	9%	18%	18%	18%
3	AIIPMER. Mumbai*	9%	9%	9%	18%	18%	18%
4	CIP, Ranchi*	9%	9%	9%	18%	18%	18%
5	Dr. RML Hospital, New Delhi*	9%	9%	9%	18%	18%	18%
6	JIPMER, Pondicherry*	9%	9%	9%	18%	18%	18%
7	LHMC, New Delhi*	9%	9%	9%	18%	18%	18%
8	NIHFW, New Delhi*	9%	9%	9%	18%	18%	18%
9	NIMHANS, Bangalore*	9%	9%	9%	18%	18%	18%
10	PGIMER, Chandigarh*	9%	9%	9%	18%	18%	18%
11	Safdarjang Hospital, New Delhi*	9%	9%	9%	18%	18%	18%
12	VMMC, New Delhi*						

Chapter-III: Table – 1-E

Agriculture Group

Institution-wise Rollout of 27% OBC Reservation and Rollout of Total Intake - 54%.

Sl. No	Name of the Institution	Rollout of Reservation for 27% OBCs Phased implementation		Rollout of Total Intake - 54%.	
		2007-08	2008-09	2007-08	2008-09
I.	ICAR-Deemed Universities				
1	Indian Agricultural Research Institute, New Delhi	9%	18%	18%	36%
2	Indian Veterinary Research Institute, Izatnagar	9%	18%	18%	36%
3	Central Institute of Fisheries Education, Mumbai				
4	National Dairy Research Institute, Karnal	9%	18%	18%	36%
	UG	27%		54%	
	PG&Ph.D	9%	18%	18%	36%
II	Universities				
5	Central Agricultural University				
5.1	College of Veterinary Sci. & Animal & Hus. Mizoram	9%	18%	18%	36%
5.2	College of Fisheries, Agartala UG	27%		54%	
5.3	Coll. of Horti. & Foresty, Pasighat	9%	18%	18%	36%
5.4	Coll. Of Home Sci. Tura UG	27%		54%	
5.5	Coll. Agri. Eng. & Post Har. Sikkim	27%		54%	
5.6	Coll. Of Agriculture, Imphal UG&PG	9%	18%	18%	36%

3.3 OBC Reservation delivers

That expansion necessarily means dilution of *excellence* is clearly a myth and is not substantiated by the actual ground experience of four decades of implementation of OBC reservation. Four case studies, from Andhra Pradesh, Karnataka, Kerala and Tamil Nadu show how they have empowered the **OBCs** in this manner. {Annexure XII (A) to (D)}. Their experience would put paid to the

argument that such a reservation would seriously impact quality. Our experience in each state has shown that the members of the OBCs can bridge the gap between them and the general candidates, provided that they are given the opportunity to compete on equal terms. The Committee feels that the present opportunity would enable the country to make major strides in building a just and inclusive society.

Other Core Issues

The other core issues which are likely to impact the implementation roadmap of the OBC reservation and also give effect to the underlying thematic triad of inclusion, expansion and excellence are discussed below.

- Faculty related issues
- Infrastructure- related issues
    - Expansion strategies
    - ICT enabled networked digital campus
- National Merit Scholarship Scheme
- Enlarging Research & Encouraging Innovation on Campuses Remedial Courses
- Financial Implications
- On- Account Releases or Mobilisation Advance
- DPR and Pre-project Commencement Timelines
- Programme Execution and Implementation Monitoring

3.4 Faculty Related Issues

3.4.1 **Suggested New Deal:** An area which provides considerable cause for anxiety is **the perceptible decline in the popularity and status of the teaching profession**. Teachers are no longer a *reference group* and do not command the respect they once did, and which they deserve. This decline has of course many reasons behind it like stagnation in actual emoluments, the absence of administrative, political and money power (which draw a number of young people), a *status quo* syndrome in academia and the increasing availability of new professions which offer many opportunities for personal and professional growth. The rigid university structure, the absence of autonomy, inadequate remuneration and changing social mores and erosion of dignity of the teaching profession at the hands

of some private institutions have all contributed to the decline in this profession, where many posts are vacant.

3.4.2 For Government supported institutions there are certain structural constraints. Their pay scales are governed by the University Grants Commission which is also linked with salaries of the government employees. While the next Pay Commission would propose an increase in their emoluments, the increases are likely to be limited by considerations of disturbing the parity with other government employees. **It is unlikely that the new scales would be comparable to the incentive and emoluments structure provided by a Private Education Service Provider or those provided by an R & D facility in the Corporate Sector. There is, therefore, a need to review the continuance of the link with the UGC pay scales, in respect of those institutions which are able to augment their resources substantially.** The representative of the Finance Ministry had some reservations on this and indicated that "till so far as an institution receives budgetary support from the Government, its pay scales would be governed within the overall parameters laid down by successive Pay Commissions", while Member (Education) in the Planning Commission stated that "it would be absolutely erroneous to compare the capacity of the Government to pay to its teachers, even in the institutes of higher learning, with that of the private sector". Their views have been brought on record, **but the basic problem of making teaching an attractive profession remains. After going into all aspects, the Committee is of the considered view that once an institution of higher learning ceases to be dependent on the government for funds for recurring expenditure, it should be free to determine its own salary structure**.

3.4.3 The Committee feels that the perquisite of **faculty housing** is extremely important and should be provided as far as possible if we are to make teaching an attractive proposition in institutions such as IITs/ IIMs /AIIMS / DU / JNU / BHU / AU/ AMU, etc.

3.4.4 The Committee took note of the fact that a large number of faculty posts have fallen vacant and the posts of the support staff have also shrunk because of the **ban on recruitment**. The Committee believes that the recruitment ban in educational institutions should be limited to non-technical support staff and not to

teaching cadres and non-teaching technical support staff like Laboratory Assistants, Library Staff, etc. These vacant posts should be filled on an emergency basis. The staffing pattern of these institutions could be critically looked at by their own Boards/Councils and steps can and should be taken to **outsource** whatever activity they can, like security, campus maintenance, horticulture, cleaning, hostel management, catering, computer maintenance and reprography.

3.4.5. **Optimizing Teacher Student Ratios:** Coming to the TSR proposed by all the groups, the Committee feels that with recourse to extensive deployment of technology, provision of Teaching Assistants, redeployment of staff, periodic review and jettisoning of courses and optimal use of capacity, there is sufficient scope to increase the TSR coverage of students without compromising quality.

3.4.6 **Age of Superannuation and post superannuation extension: Reemployment Vs. Contract**: Looking at the problem of shortage of faculty, a proposal was made to **increase the present age of retirement** across the board. At present faculty in Central Universities and the Agricultural Institutions retire at the age of 62, while the age limit in the case of Medical Institutions is 60. The Committee feels that this situation is anomalous and that **all teaching staff/faculty should continue till the age of 62** at least.

3.4.7 A question was raised as to whether the retirement age of faculty should be raised to 65. Opinions differ in this regard. One argument is that such an extension would reduce the promotion prospects of those already in service and that since the best in the faculty in most management and technical institutions get instantly employed after superannuation, and automatic extension and or increase in the retirement age from 62 to 65 may not give us the best results. In this regard the Committee feels that the Ministries concerned would be in the best position to decide whether to increase the age of retirement to 65. One alternative formulation **which the Committee supports**, would be to **screen faculty at the age of 62 and provide an extension to those faculty members found fit, till the age of 65.** The representative of the Finance Ministry however indicated that this proposal could not be agreed to and his views have been brought on record. **Between the ages of 65 and 70, contracts could be given to outstanding faculty and/or those whose services are needed by the institute concerned.**

3.4.8 At the same time the Committee recognizes that this would not be a satisfactory long term solution since we need to attract **younger** people into academia on a very large scale, resorting, if necessary, to campus recruitment and lateral entry of outstanding persons. This would also address the problem of 'in-breeding' which may affect academia. Apart from housing facilities, a detailed faculty development plan should be drawn up by each institution to facilitate periodical training and further education for faculty members who should be up to date with their subjects and familiar with technological and pedagogical developments. Institutions like the IIM Ahmedabad, IIT Mumbai, IARI, AIIMS and Delhi University/JNU could possibly act as nodal bodies for faculty development in their subject areas.

3.4.9 Faculty time could be purposefully maximized by providing an adequate complement of support staff like **Teaching Assistants** from among those students undergoing Masters', Doctorate and Post-Doctoral programmes in the institution. The question of providing lateral entry from industry into academia and relaxing qualifications (such as a Ph. D Degree) in respect of eminent management practitioners in niche functional areas can be looked at in exceptional cases as senior and middle level managers may want to teach for a couple of years in management schools or an institute of technology.

3.3.10. A number of Institutions of Excellence are residential, and there is much to commend the residential pattern. The students and faculty interact into the late hours and group work also takes place after offices close. Students are often found in the library and work in their laboratories till late at night. This naturally envisages a greater workload for faculty members. It should nevertheless be possible for resident faculty to provide extra time in light of the fact that the staff-student ratio proposed by the IIMs and IITs appears to be on the liberal side.

3.3.11. For other institutions (other than IITs / IIMs / AIIMS & Agricultural institutes) located in a million plus city, large investments in hostel accommodation should be discouraged. In the best institutions around the world the teacher-staff ratios are lower since many students live off- campus. At the same time they are able to access the facilities after office hours electronically. Ideally, a culture of off-campus student accommodation would have to be developed, like it is in Pune for

example. Until such time as adequate housing facilities are available outside the campus, hostel accommodation for students will be required.

3.5 Infrastructure related issues:

3.5.1 **Expansion Strategies for IITs & IIMs: Issue of a Satellite Campus Vs. a New Campus.** The expansion of the institutes covered in the report should be a continuous process and more such bodies should be established to ensure that adequate opportunities are given to bright students, transcending communities, castes, religions, backgrounds and regions. **The process of continuous expansion should be such that the intake is increased until they reach the optimal permitted sizes.**

3.5.2 It is ironic that centres of excellence like the IIMs and IITs have grown so slowly in the last four decades. The IIMs have grown at just 1% for the last 36 years. The IITs have grown at 5% for the last 30 years. Since the IIM intake is so limited, many bright students spend a lot of money to go to universities abroad. It is estimated that Indian students spend as much as Rs.2 billion every year to pay for their education abroad.

3.5.3. The question of Satellite campuses also came up for discussion. IIM, Ahmedabad indicated a shortage of space in their premises while IIM, Kozhikode (Calicut) pointed out that there were physical constraints to their expansion plans. Both institutions talked about the development of a Satellite campus at Mumbai and Chennai respectively. In this respect, the Committee feels that the creation of a satellite campus is only a temporary solution which may help meet the immediate requirement of expansion. The long term solution would be the establishment of three new Indian Institutes of Management in major cities though the Finance Ministry representative pointed out that this will have to be proposed and approved outside the expansion proposed by Oversight Committee.

3.5.4 Similarly, there is a need for more IIT-like institutions and an expansion in this regard would help raise the standards and aspirations of a number of school leavers. In both cases, the private sector could be involved as partners in the creation of new institutions.

3.5.5. The experience with public-private partnerships for the IIITs has been very positive and at least 20 more can be established in the XI Five Year Plan. It is recognized that excellence cannot be confined only to institutions of higher learning and a qualitative improvement in secondary education is a *sine qua non* for corresponding improvements in institutes of higher learning.

3.5.6. The **shortage of good Medical Colleges** in the country was something that the Committee was concerned about. It appears that there are barriers to entry, some of which are procedural, while a supply shortage and high capitation fees for admissions to private Medical colleges leads to a number of students going abroad for their higher studies. If the Health Ministry and the Medical Council of India were to jointly address the problem and find solutions, the shortage of doctors in India should be mitigated. The Draft rules (which are on the lines of global best practices) submitted by the MCI to the Ministry of Health should be considered expeditiously for adoption to overcome some of the existing constraints for expansion in Medical institutions. Investment by quality providers, should be facilitated in the education sector as a whole (graduate and post graduate programmes) since the resources available with the Government are limited. At the same time the creation of 6 new AIIMS-like institutions and upgrading at least 7 more medical colleges under the Government of India becomes absolutely necessary, and the Committee understands that a proposal in this regard is already under consideration by the Government.

3.5.7. As far as **education in the agriculture sector** is concerned, there appears to be a problem in that most of the graduates go into fields other that agriculture. This issue relating to migration needs to be looked at by the Agriculture Ministry.

3.5.8. Education in the Agriculture sector is getting far more specialized with each passing day and potential niche areas are emerging on a changing time scale. Hence, strengthening of specialized and niche areas is urgently called for so as to develop skilled and competent human resources that are critical to match the growing needs of attaining excellence in science and technology development and effective technology dissemination for achieving a knowledge based agricultural

transformation of the country to address concerns on equity, social justice and balanced harmonized growth.

3.5.9. Indian agriculture is vast and diverse. There are 15 district agro-climatic zones specially delineated by the Planning Commission. To meet the cutting across frontal needs of the country, there is an urgency to establish three national institutes in the priority areas at appropriate places in the country, one of which could be in the North-East. These institutes could focus on Agricultural Biotechnology, Biotic plant stress management and Abiotic plant stress management. The way insects, bacteria, viruses, nematodes, etc are increasing/changing their form and function with the climatic change, an institution to deal with biotic pressure is essential. Drought, salinity, heat, pollutants, etc with increasing demographic pressure and changing weather calls for an early establishment of a National Institute on Abiotic stress management and on priority as well. These institutions, by developing world class human resources, would go a long way to tackle the agrarian distress by insulating farm production, enhancing productivity and profitability through technology led agricultural development.

3.5.10. **ICT enabled networked digital campuses:** The Committee recognizes that **technology** would have a large part to play in the establishment of excellence. It is felt that each of the campuses of the Institutes of higher learning covered by this report should be ICT enabled, fully networked with digital classrooms and video conference lecture theatres. They must provide adequate bandwidth for internet and intranet application and video conferencing facilities. Sufficient optical fibre nodes should be provided with access points for deployment of W*i Fi* and W*i Max*, in the user interface. **Laptops should be seen, essentially, as an access device connecting the student with the knowledge world in cyber space and broadband connectivity as the umbilical chord through which he is drawing his sustenance from the knowledge society.** Time has also come when it is necessary to mandate and facilitate the purchase of personal computers/laptops for each student. Where this is not possible, computer laboratories on campus should be provided with sufficient intensity and should be made accessible on a 24X 7 basis so that each student has a dedicated machine on a time-slotting basis. Chapter V provides a grand plan for technology deployment on campuses aimed at

preparing our campuses for the age of "networked intelligence" and providing essential digital infrastructure ready to be used by a "plugged in, digital savvy-generation" called "net-Gen". Similarly, there is some 'idle capacity' in the institutions and optimal use needs to be made of all the available facilities. The use of ICT, the introduction of *Edusat* Terminals and Distance Learning Methods in these institutions could also reduce costs.

3.6. National Merit Scholarship Scheme:

3.6.1 For spotting and nurturing talent from excluded sections of society, the Committee proposes that the *National Merit Scholarship scheme* should be expanded exponentially to cover gifted or meritorious students belonging to Scheduled Castes, Scheduled Tribes, OBCs and others. At least 100,000 scholarships can be provided each year and the amount could be Rs.12,000 per annum. The financial implication of the scheme will be Rs.120 crore in Year I, Rs.240 crore in year II, Rs. 360 crore in year III and Rs.480 crore in year IV and thereafter it will stabilize at the year IV level. In terms of coverage, it would mean that one out of less than 1000 students in the relevant age group will be availing of the scholarship at the intake point of class IX.

3.6.2 The scheme will be applicable only to students entering class IX, who are studying in Government schools and those controlled by local bodies, and will continue till they pass class XII and are ready for induction in an institution for Higher Education.

3.6.3. Besides this, *the post-matric scholarship scheme for SC and ST students* **can be extended to the OBC's** and the Ministry of Social Justice and Empowerment are requested to consider this matter. **The Committee strongly recommends such an extension and that the rates of post-matric scholarships can also be suitably enhanced**. The new scheme, which can be processed separately, should be administered on the lines of the existing pre-matric scheme for SC/ST students, with suitable phasing in respect of Central funding. This could go a long way in meeting the requirement of the **National Common Minimum Programme** that no student should be deprived of an opportunity to study because he/she is poor.

3.6.4 The Merit Scholarships referred to in para 3.6.1 should be available to students for Classes IX / X / XI and XII and could be based on the marks obtained in the Merit Scholarship Test conducted by NCERT. Allocations can be made to the State Governments by the Ministry of Human Resource Development once the revised scheme is finalized. The Finance Ministry representative suggested that such schemes be handled separately under the plan ceiling of the concerned administrative Ministry.

3.7. Enlarging Research & Encouraging Innovation on Campuses:

3.7.1 Apart from a few prestigious centres under the Government, **research** in India has not been of the desired quality. Part of the reason lies in the fact that, during the period of strict economic control, companies would import second hand technology and sell sub-standard products in a captive market. With the opening up of the economy and the acceptance of the discipline imposed by the *World Trade Organization*, many sectors of the industry have been able to upgrade their quality of research so as to become globally competitive. The Pharmaceutical industry is one such example. It needs to be recognized that there is a symbiotic relationship between academia and industry. The private sector, on its part, needs to extend its area of social responsibility and, apart from directly supporting and nurturing research in higher education; it could contribute to the establishment of academic *Chairs* and scholarships as well as provide for laboratory upgrades and training of faculty and technical staff.

3.7.2. While applied research would necessarily involve the end-user, there should be a dedicated fund for research in each institution whose needs would, understandably, vary. For example, the Indian Institutes of Science Education and Research as well as the Agricultural Universities would have to devote a lot of time to *pure* as well as *applied* research.

3.7.3 One indicator of a country's educational progress is the number of Ph. D students that it has. On this count India lags far behind most countries in the world. In fact, we have remained static at around 4500 $\pm$ 500 Ph Ds (In Science and Engineering) over the past several years. China is far ahead of us. It is seen that whereas India (11,177 papers) was ahead of China (10,157 papers), in 2005 China

(53,513 papers) overtook India (19,448 papers) substantially. Special efforts would need to be made to encourage students to take up doctoral and post-doctoral studies, which today are only seen as avenues for joining academia.

3.7.4 The Prime Minister, on the occasion of the presentation ceremony of the Shanti Swarup Bhatnagar award made the following observations: *"What are the big challenges that Indian science & technology face today? On the supply side, we have to enhance the supply of skilled scientists and technologists. This needs to be done through a judicious balancing of 'expansion', 'inclusion' and 'excellence'. On the demand side, we have to promote 'technology-led accelerated inclusive growth'. Let me elaborate on these challenges.*

"Numbers is the first issue. I understand that we have only 157 scientists and engineers per million people involved in Research & Development. Korea has 50 times more and United States and Japan have over 30 times more! Quality and output is yet another issue. In ten years, I have been told China has overtaken India in the number of scientific research papers published in the internationally peer reviewed journals. In fact they publish three times our numbers.

"Our Government is determined to ensure an expansion of supply, demand and productivity in the area of Science & Technology. After a gap of a hundred years, we are now setting up three new Indian Institutes of Science, Education and Research (IISERs). Each of these institutes will be unique in terms of integration of science education and research.

***"Our best minds are not turning to science, and those who do, do not remain in science. This is a common refrain whenever I meet with the Scientific Advisory Committee to the Prime Minister. We must therefore find ways and means of making these disciplines more attractive to our children and to our young**. We have to redesign school and college education to build on the natural curiosity of our children.*

"We must also maintain the excellence of current institutes of higher learning, who have already been recognized globally. This can be achieved only through the recruitment of the very best faculty. We must create an environment conducive to the pursuit of excellence. It might appear that expansion, inclusion and excellence are

mutually contradictory objectives. I do not think so. With determination and with some innovation, I am sure we can harmonize these objectives and this we must do".

3.7.5 **"The National Science Talent for Research and Innovation Fellowship"**

A new programme commencing at the pre-university stage to tap and retain bright science students in science streams during their B Sc / M Sc programmes, is recommended. There will be 10,000 fellowships of Rs 100,000 per year. This one recommendation is expected to provide an annual accretion of 10,000 `best in class' future researchers per year, which should enable India to become a Global Corporate Research Hub. It will also provide our central scientific research institutions of DST / CSIR / DBT / Ministry of Earth Sciences and DIT, as well as our universities the wherewithal for unlocking R&D and unshackling "innovation". Potential Researchers recruited to the research stream early and retained with a fellowship of Rs 100,000 per year will significantly enhance the status of young scientists as a class and it is hoped that this will enable India to embark on an ambitious course of wealth creation through IPR generation. Ideally such a fellowship should be administered by an institution of eminence like a "National Science Foundation", which would need to be created. Until such time, DST will administer this. The Finance Ministry representative stated that this proposal should be de-linked from the financial proposals of the Oversight Committee.

3.8. Implementation of Reservation for OBCs in other Central Institutes not covered by this report:

3.8.1 A number of degree level programmes have not been looked at by the Committee, like nursing, dentistry, paramedical courses, design, mass communications among others. Besides, other Ministries of the Government of India also have institutions of higher learning and the list is at Annexure XII. The recommendations of the Oversight Committee and the procedure followed could be used by the concerned Ministries to ensure implementation of the new reservation policy. In this connection the Committee reiterates the position it has taken in the

Interim Report that the reservation for the OBCs should be extended to all institutions and courses where reservations for SCs and STs is implemented.

3.9. **Remedial Courses:** Remedial courses should be run for students obtaining lower marks in the entrance examination and subsequent tests should help these students catch up with the class. The programmes should focus on verbal and quantitative skills, oral English Communication, speed reading and Comprehension. Though these programmes can be run `in-house', in order to save faculty time, they should preferably be outsourced.

3.10. **Exemption from Reservation to Central Institutions with Special Status or Minority Character:** It was brought to the notice of the Committee that in some institutions in the VIth Schedule areas in the North-East and in the Baba Saheb Ambedkar University in Lucknow, there are already enhanced quotas for Scheduled Tribes and Scheduled Castes respectively. The Ministry of Human Resource Development is separately addressing this issue.

3.11. **Financial Implications:** Against this background the Committee is of the view that the financial projections submitted by the Groups should be reduced on account of the use of information technology, utilizing idle capacity and common services, making use of holidays, the running of shifts, outsourcing and leveraging resources from different organizations. Once a rigorous scrutiny of the Detailed Project Report (DPR) to be given by the institutions is done, further economies are possible.

3.11.1 The financial implications emanating from this report are summarized in Chapter VI.

3.11.2 As a result of the deliberations of the Oversight Committee, the Engineering Institutions will be getting Rs 6745 crore in the next five years against an additional annual intake of 16,440 students. The additional grants to IITs will range between Rs 220 crore to Rs 700 crore. At the median point this will amount to a grant of Rs 500 crore ($110 million) per institution, which would put them in the league of the top-bracket technology institutes in China as far as proposed investments are concerned.

3.11.3 Central Universities (17) will be getting approximately Rs 3300 crore for an additional annual student intake of approximately 50,000. Old and established universities like Allahabad, Banaras and Delhi universities will undergo capacity expansion requiring more than several hundred crore each. This should enable them to upgrade their campuses substantially.

3.11.4 The twelve Central Medical institutions will require Rs 1877 crore for an additional annual student intake of less than 600 students. The per student cost for Medical students, thus will be the highest (spread over five years). However, it is expected that AIIMS whose financial grants could well be the highest among all institutions –around Rs 800 crore or $175 million -will be able to become a state-of-the-art world class medical facility followed by PGIMER-Chandigarh and LHMC-New Delhi, each of which might get approximately Rs 460 crore or $ 460 million during the next five years.

3.11.5 Central Agricultural Institutes (5) spread over 10 locations will require approximately Rs 133 crore against an additional annual intake of 454 students. Each of the major institutes will be getting grants in the range of Rs 20 crore to Rs 40 crore.

3.11.6 The IIMs are expected to garner bulk of the finance for expansion themselves. Nevertheless, each of them is likely to get between Rs 40 to Rs 50 crore. Thus, approximately Rs 285 crore will be made available to IIMs (6) and NITIE against an additional annual intake of approximately 1000 students

3.11.7 A highlight of the recommendations of the Oversight Committee are the three programmes/ projects which cut across all five groups and will commonly serve the cause of both “inclusion” and “excellence” viz:-

a. **Project for “Networked Digital Campuses” – which will require approximately Rs 1750 crore over a five-year period.**
b. **National Merit Scholarship Scheme – for SC /ST /OBCs / Other economically backward class students, through classes IX, X, XI and XII. This will require Rs 1500 crore over a five year period.**
c. **Scheme for Tapping and Retention of Potential Researchers – “National Science Talent for Research and Innovation Fellowship”**

Programme commencing at pre-university stage to attract and retain bright science students in science streams during their B Sc / M Sc programmes. The fellowships will continue even beyond five years until the candidate gets his Ph. D. This one recommendation is expected to provide an annual accretion of 10,000 best in class future researchers per year, which should enable India to become a Global Corporate Research Hub. It will also provide our central scientific research institutions of DST /CSIR/ DBT / Ministry of Earth Sciences and DIT, as well as our universities the wherewithal for unlocking R&D and unshackling "innovation". Potential Researchers recruited to the research stream early and retained with a fellowship of Rs 100,000 per year will significantly enhance the status of young scientists as a class and it is hoped that this will enable India to embark on an ambitious course of wealth creation through IPR generation. Ideally such a fellowship should be administered by an institution of eminence like a "National Science Foundation", which would need to be created. Until such time, DST will administer this. There will be 10,000 fellowships of Rs 100,000 per year. This will require approximately Rs 1500 crore over the five year period – commencing at Rs 100 crore in year 1 and adding upto Rs 200 crore (year 2), Rs 300 crore (Year 3), Rs 400 crore (year 4) and Rs 500 crore (year 5).

3.11.8 **The combined financial implications of the Oversight Committee will cost the central exchequer Rs 17270 crore (approx.) spread over five year period. Of this Rs 7035 crore (approx.) will be non recurring expenditure, the bulk of which will be spread over year 1, 2 and 3, where as the recurring expenditure will be Rs 10,235 crore (approx.) spread over five years increasing progressively. The non-recurring expenditure by its very nature has been front-loaded. The phasing of the total expenditure will be Rs 4278 crore in year 1, Rs 3518 crore in year 2, Rs 3122 crore in year 3, Rs 3344 crore in year 4 and Rs 3008 crore in year 5 (see Table 6).**

3.12. **Empowered Committee**: (At the institution level) The Oversight Committee has now concluded its task. It is considered advisable to provide a monitoring mechanism to facilitate and review action to implement its recommendations. It is, therefore, suggested that an *Empowered Committee* be set up in each Institution which would accord the necessary clearances and bring the bottlenecks to the notice of the concerned Ministry.

3.13. **On-account Releases or Mobilization Advance:**

To ensure that Project Execution is taken up by each institution with a sense of urgency of purpose and not as "business as usual", it proposed that the Planning Commission/Ministry of Finance release a mobilization advance to each institution, a 1st tranche of 5% of the project cost of the DPR by 31 December, 2006 a 2nd tranche of 5% of the project cost (in the DPR) by 1 April, 2007 and the 3rd tranche should be released only after the concerned institution has submitted the adjustment accounts of the 1st tranche.

3.14**. DPR and Pre-project Commencement Timelines:**

3.14.1 It should be the endeavour of each of the institutions to submit their DPRs by 15 October, 2006 to their Ministries. The Ministries must elicit from the institution replies to their queries in one go (not piecemeal) by October 31, 2006. Institutions must resubmit the duly revised DPRs by November 30 2006. The Ministries must clear the DPRs and accord final approval by December 31, 2006.

3.14.2 **The DPRs should take into account the considered view of the Oversight Committee that the 27% reservation for the OBCs should be implemented as soon as possible.** The increase in the number of programmes can be 'front loaded' and certain institutions can implement the reservation in one or at the most two years. Agricultural Universities are one example and even Medical Education Institutes can make all out efforts to compete the task in two years. Similarly, many central universities would be in a position to complete the process in two years, and even one year, particularly in the Arts subjects.

3.15. **Programme Execution and Monitoring:**

There should be a Ministry Level *Monitoring Committee* headed by the Secretary, which would review progress in respect of project execution timelines given in the DPR of each institution and provide and obtain the necessary clearances to facilitate the process. It will anticipate bottlenecks and take advance action to pre-empt them. As many Ministries are involved there was a broad agreement that there could be an **Inter-Ministerial monitoring committee** constituted in the Planning Commission, and comprising the Secretaries of the line Ministries as well as the Finance Secretary and Secretary Personnel. This will monitor and review **implementation** of OBC reservations and expansion of student intake, faculty expansion and infrastructure expansion in unison and identify resources for this purpose. The monitoring will be done for both physical and financial outcomes.

3.16 **Evaluation**

The design of the scheme for reservation of 27% for the OBCs in institutions of higher learning and its implementation should be periodically reviewed in order to assess the actual delivery of the intended benefits to the target population. This evaluation should be taken up at least once every five years through studies carried out on a countrywide basis.

CHAPTER IV

IMPLEMENTATION RELATED ISSUES

4.1 The discussions with the groups, experts and others brought out a number of related issues which can be addressed, such as:

- Treatment of the 'Creamy Layer'
- Status of OBC candidates who qualify under the general quota
- 'Cut-offs' or admission thresholds
- The issue of autonomy for excellence
- Transition path to financial autonomy for IITs and IIMs
- Funding Higher Education

Treatment of the Creamy Layer:

4.2 One of the main residual issues mentioned in the *interim report* was the application of the ***creamy layer*** concept in respect of reservation for **OBCs**. This was discussed in some detail and the decision taken was to leave the matter to the Government of India, keeping in mind the fact that the 'creamy layer' is not covered in the Central Educational Institutions (Reservation in Admissions) Bill, 2006, which has been introduced in Parliament, and as some members felt that this subject was beyond the purview of this Committee. A short study made for the Oversight Committee in the Planning Commission indicates, *inter-alia*, that:

(a) Since income is a major determinant of the ability to access higher education, it may be necessary to supplement reservations with a merit-cum-means scholarship programme, as is being done for SC/STs.

(b) The true benefit of reservations will be realized only when the high school enrolment of OBCs, especially in rural areas, increases significantly. Attention will need to be paid to this issue in the coming years.

The points raised in respect of the creamy layer issue can be seen in Appendix 1 and the text of the study is in Appendix 2.

4.3 Status of OBC candidates qualifying in the general category –

4.3.1 Another issue which needs to be addressed is the status of those **OBC** candidates who qualify in the general quota. In this connection a meeting was held with officials of the M/o Personnel and the Union Public Service Commission. The principle adopted in the case of competitive examinations for recruitment to the higher civil and technical services of the country is to treat the **OBC** candidates who come in to the general merit list as general candidates **unless** they derive any benefits on **account** of their **OBC** status. For example, if they are not able to get the service of their choice, they invoke their **OBC** status and thereby claim benefits that they would not have got if they were general candidates. In the latter case however, the act of invocation would ensure that they would be counted against an OBC vacancy, not a general vacancy. A similar situation may arise in OBC candidates wanting to avail access to a particular course or institution invoking the quota. The committee is of the view that this principle should be adopted as it is rational and equitable.

4.4 '**Cut-offs' or admission thresholds:**

4.4.1 The issue of ***threshold levels*** or *'cut-offs'* for **OBC** candidates has already been addressed in the **Interim Report** (paras 7 & 8) as under.

4.4.2 "The Committee recognizes that those institutions of higher learning which have established a global reputation (e.g. IITs, IIMs, IISc, AIIMS and other such exceptional quality institutions), can only maintain that if the highest quality in both faculty and students is ensured. Therefore, the committee recommends that the threshold for admission should be determined by the respective institutions alone, as is done today, so that the level of its excellence is not compromised at all.

4.4.3 As regards 'cut-offs' in institutions other than those mentioned in para 7, these may be placed somewhere midway between those for SC/ST and the unreserved category, carefully, calibrated so that the principles of both equity and excellence can be maintained.

4.4.4. The Committee strongly feels that the students who currently tend to get excluded must be given every single opportunity to raise their own levels of

attainment, so that they can reach their true potential. The Government should invest heavily in creating powerful, well designed and executed remedial preparatory measures to achieve this objective fully."

4.4.5 The Committee was apprised of the special cut-off system, with bonus points for SC/ST/OBC candidates, girls and students with disabilities, which is currently being applied by the *Jawaharlal Nehru University*. The University has evolved an interesting and inclusive system of selection of students, where extra weightage is given to those coming from backward districts. The Committee appreciates this system, but in view of the present policy of providing 27% reservation for **OBCs**, they could continue with their procedure as long as it is within the parameters laid down in the new reservation policy of the government. As regards 'cut offs', the Committee's final view has been mentioned in the **Introduction** itself.

4.5 **Autonomy for Excellence**:

4.5.1 The issue of **autonomy** for institutions of higher learning under the Govt. is a point which was reiterated to the Committee, time and again, by members of the groups and most particularly by centres of excellence like the Indian Institutes of Management (IIMs) and the Indian Institutes of Technology (IITs).

4.5.2 It is generally accepted that autonomy is the *sine qua non* of excellence. Autonomy and excellence go hand in hand and as long as inclusive policies are followed by other central institutions, full functional freedom should be given also to the oldest and established Central Universities like Delhi University, JNU, BHU, Allahabad University, etc. It is widely recognized that erosion of autonomy would adversely impact quality, and this issue finds a mention in the **National Common Minimum Programme** (NCMP). Autonomy has been a recurring theme in the reform of higher education. There are several committees and groups that have examined or are examining the subject. But in practice, the progress made on this important subject has been rather slow and half hearted. A major problem is that most institutions of higher learning are so dependent on government funds that serious departures from government norms and supervision are practically difficult. Since financial autonomy is at the heart of the matter, a view

was expressed that at least in the case of the institutions that are no longer dependent on government funds by way of capital or recurring grants, forward looking steps should be taken to give them a much larger measure of autonomy of operations while ensuring accountability in terms of performance and outcomes.

4.5.3 This unique opportunity to expand capacity in higher learning institutions should also provide an opportunity for greater autonomy as far as these institutions are concerned. This view was clearly accepted by the Committee and articulated in the Interim Report. However, in the final meeting of 27th September 2006, the consideration of the issue of grant of greater autonomy was opposed by some members who felt that it was not within the mandate of the Oversight Committee to go into this issue. It was also argued that much has been said by many Committees earlier and though the issues involved are important and need to be discussed and debated, the Oversight Committee should not deal with this.

4.5.4 The Committee finds this line of argument unacceptable. On behalf of each of the five groups, impassioned submissions had been made favouring greater autonomy. In fact the general tenor of presentations by the institutions also was that the line Ministries' control over them was oppressive and debilitating and was acting as a barrier to progress. The Committee felt that the issue of autonomy was critical to the future health of these institutions and that the committee should make its own recommendations which can themselves become points around which future debate and discussions can take place. Autonomy for Institutions of Higher Learning in India is necessary to enable these institutions to blossom into their best to match their global counterparts and for this it is necessary to transcend the range of vision of the line Ministries.

4.5.5 The Committee therefore proceeded with outlining the recommendation for operationalizing all aspects of autonomy encompassing (a) Institutional autonomy in Academic Matters (b) Autonomy on governance related Matters (c) Financial Autonomy to raise and deploy resources.

(a) **Institutional Autonomy:** Ultimate authority should vest in the Board of Governors which will be accountable to its stakeholders viz. Government of India, State Government, civil society, industry, alumni, teachers and students. Institutional autonomy envisages that the Board will be free to decide future strategies and directions, processes governing admission, curriculum updating, examinations, classroom processes and the interface with the external environment as well as determine the standards and degree of excellence. The Board should not have more than one third of its members from the Government, with the others coming from industry, the professions and alumni, to enable it to draw upon the services of persons of great eminence and representatives of other stake-holders in a large measure. The Chairman of the Board will have to be a Government nominee. The choice of the Director of the Institute should be exercised by the Board and not the Government, if institutional autonomy is to be given a meaning. A Board Member should lose his position if he is absent for more that 3 consecutive meetings.

(b) **Governance related autonomy** – is desirable to enable the Board and its Academic Councils to decide personnel policies of the institutes, its faculty recruitment and development plans, its core areas of academic, research and consultancy related strengths, delegation of administrative authority and its performance review processes for faculty and non-faculty personnel.

(c) **Financial Autonomy** – will enable these institutes to mobilize resources from user fees, review fee-structures, consultancy services and donations. It will also unshackle the institutions, enabling them to be venturesome in taking bold initiatives regarding campus accretions/additions, starting new faculties and new disciplines, creating competencies in new knowledge domains, expanding infrastructure and enlarging student outreach. The Board should also be left free to evolve policies relating to donations, endowments, scholarships, instituting Chairs, accumulation and deployment of reserves and surpluses, keeping in mind the overarching principle of equity while fixing fees and determining the amount of scholarships.

To operationalize these changes the starting point will have to be amendments in the charters governing these institutions and these would vary on a case to case basis. The structure of autonomy should be broad and there should be a periodic assessment every decade and an internal assessment every 5 years to ensure its commitment to *inclusion* and *excellence*. In respect of Medical Colleges, the Committee is given to understand that, apart from AIIMS and PGI, these have no Governing Council. The Committee recommends that an institutional mechanizing be put in place, either by way of registration under the Societies Act, or through an Act of Parliament, to ensure autonomy.

4.6 **Transition Path to Financial Autonomy for IITs & IIMs :**

4.6.1 Financial self-sufficiency is a precondition for financial autonomy. Any Institution that seeks financial sustenance from Government cannot seriously seek financial autonomy. Some of the institutions, like the IIMs and IITs, will be able to raise resources from their Management/Executive Development Programmes, consultancies, research and customized courses. It is expected that the three older IIMs will be in a position to meet their own recurring costs and the newer IIMs at Indore, Kozhikode and Lucknow should also be in a position to stand on their own feet probably by the end of the 11th Five Year Plan. It is felt that IIT & IIM graduates enjoy a 100% job assurance and will be able to obtain bank-finance to meet their fees and other expenses. The access to bank finance should be assured to all students and thereafter IIT undergraduates and IIM students should be charged fees commensurate with the per student cost per year. In the case of IITs, the present system of a subsidized fee structure may, however, have to continue in some measure for post-graduate & research stream" students, till all of them become hot shots in the employment market. It was felt that within the above framework, budgetary support for recurring expenditure should be discontinued after the XI Plan. Along with financial self-sufficiency, there should be effective autonomy for these institutions. The same principle should be applied to NITs, who have to be given autonomy, except that the question of continuing support to them should be reviewed at the end of the XI Five Year Plan.

4.7 Funding Higher Education

4.7.1 A connected issue is the continuation of government funding. Universal elementary education, being a constitutional guarantee, is clearly a prime responsibility of the Government. Education is a social responsibility too, and stakeholder groups, civil society, private trusts and corporate bodies must share the responsibility of development of the secondary and higher education sectors.

4.7.2 One also has to take a realistic view of the dimensional limitations on public funding, such as the constraints imposed by the *FRBM Act*, which limits the fiscal deficit to 3% to be achieved by March, 2009, those imposed by existing tax-rates on revenue increases, and the limits imposed by a high tax to GDP ratio (10.5% in 2005-06) on the expectations of a more than normal increase in the buoyancy of tax and non tax-revenue.

4.7.3 It is quite clear that within the Education Sector there is a major increase in commitment of public funds for (a) **universal elementary education** and the (b) **concomitant expansion of the secondary system**, (c) the inescapable **investment imperatives in vocational and technical education and skill development sector** and (d) **the need to nurture Research & Innovation**: All this will make it difficult for the State to take on all the larger obligations relating to Higher Education. Therefore the private sector would have to play a role in providing enough capacity to meet the burgeoning demand for seats in higher education in general and in medical, technical and management education in particular. They would also be able to provide *competition*, which is desirable if standards are to be raised.

4.7.4 The Government of India's commitment to elementary education is a total, and as far as secondary education is concerned, a sizable increase in resources will be provided in the next five year plan with the aim of universalizing education up to Class X, with the government playing the lead role. Vocational Education and Training (*VET*) has been neglected because it was not considered a priority area by the different departments involved in the state and central governments and even by many students. Given the mismatch between the outdated skills taught and the demands of industry and the jobs available, it becomes

necessary to accord priority to this sector and develop a synergistic relationship between the state government (which can provide the land), the central government (which can meet the capital cost) and industry which would play a key role in running VET centres. The Prime Minister's call for a special mission for vocational education and training is a timely one.

4.8 **Private Sector Participation:**

4.8.1 **Public- private partnerships** were also considered necessary by some members, who felt that the private sector should come forward to establish institutions on the lines of IITs and IIMs, possibly in a framework of public private partnership**.** They provide a much closer interface between education and employment and, given the fact that the number of educated unemployed young people in this country is growing at a rapid pace, it becomes increasingly necessary to provide for employment counseling and develop a much closer relationship with industry and business who, in the future, would be the main employers, with the government's role diminishing by comparison. The increasing acceptance of responsibility by those who benefit from the education system would go a long way in reducing the financial burden on the Govt. which has to focus on the priority sectors. Some others felt that the prime role for providing education should be that of the government.

4.9 **The Oversight Committee met for the last time on 27th September 2006 and, subject to a number of proposed changes, approved the Draft Final Report to be submitted to the Prime Minister.**

CHAPTER V

HARNESSING ICT "IN THE SERVICE OF EXCELLENCE: CREATING DIGITAL CAMPUSES TO COPE WITH THE CHALLENGES OF THE AGE OF NETWORKED INTELLIGENCE"

5.1 If India has to carve out a niche for itself, it has to prepare the campuses of its institutes of excellence for meeting the contemporary challenges of the **"age of networked Intelligence"** - an age which is giving birth to a new economy, a new polity and a new society, an age when business processes are being reinvented and continuously transformed, where government processes are being continuously re-engineered and where individuals have to perpetually reinvent themselves. We have to prepare our campuses with computing and communications infrastructure ready for use by a **"Net Generation"** i.e. a generation comprising "plugged-in, and digital savvy" students, deft at plunging into cyberspace and adept at swimming (i.e. browsing) into the cyber knowledge pool.

5.2. Today's **"net generation"** consists of questioning minds, capable of taking contrarian or non-conformist views, capable of defending their stance by the enormous information access enjoyed by them, which they find empowers them to hold on to their opinions. They are also multi-tasking individuals who can attend to several functions on the computer simultaneously. Today's 'Netgen' creates virtual communities and cyber families and engages with them through 'chatrooms'. Computers enable these young people to acquire superior verbal or language skills and hones their motor and social skills. Interactive learning with computers has literally changed the learning paradigm in the following manner:-

- "from linear to hypermedia learning
- from instruction to construction and discovery.
- from teacher-centric to student centric learning processes
- from 'while in school' to lifelong learning
- from 'one size fits all' learning to customized learning
- from school as torture to school as fun

- from teacher as transmitter to teacher as facilitator "
  - Don Tapscott in "Growing-up Digital"

5.3. Our challenge lies in full deployment of state-of-the-art technology to meet the needs of the net-generation and the requirements of the age of networked intelligence. In the fleeting world of information technology where the processing speeds are doubling every 18 months **(Moore's Law)**, bandwidth is growing three times faster than computing power or processing speed **(Gilder's Law),** value of networks grows as the square of the number of its users **(Metcalfe's Law)**, it is critical to be up with latest in computing power, bandwidth and network use-intensity. The campus networks need to be re-engineered, keeping convergence as the buzzword. In the realm of 'computers' convergence of hardware, software and services is necessary. In 'communications' convergence involves triple play, i.e. voice, data/text and images on a single digital platform. This convergence has occurred at three levels, viz.,

(a) Carriage – telephone, cable, satellite, wireless
(b) Devices – Digital displays, plasma or LCD Screens, 3G-mobile telephones
(c) Content - Entertainment, Publishers, Info-providers

5.4. A National Project for Technology Enhanced Learning (NP-TEL) is being implemented jointly by the seven IITs and IISc., Bangalore, with funding from the Ministry of HRD. The main objectives of the programme is to enhance the quality of engineering education in the country by developing over 300 curriculum-based video and web courses for being accessed by engineering students all over the country. Courses would be offered under NP-TEL under the following streams:

- Core Sciences and Engineering
- Civil Engineering
- Computer Science and Engineering
- Electrical Engineering
- Electronics and Communication Engineering
- Mechanical Engineering

NP-TEL was formally inaugurated by the Minister for HRD at Chennai on 3.9.2006.

5.5. The Ministry is also working on establishing an ICT-enabled National Mission for Education through the distance mode. All IITs, some reputed Universities and IISc, Bangalore, have been working on this project, and six anchor groups have been formed to address certain critical challenges in providing learning opportunities for every Indian using ICT. The six anchor groups pertains to:

(i) Standardization and formatting of Content,
(ii) Pedagogical Research
(iii) Development of very low cost, low power-consuming access device,
(iv) IPR issues,
(v) Digital Literacy, and
(vi) Virtual Labs

5.6. This Chapter purports to outline a centrally planned and coordinated "***Gyan Vahini***" project for establishing:-

(a) A Knowledge Network connecting all major Central Institutions (84)
(b) Connected by a fibre-optic cable backbone or information highway catering to 1Gbps to 10 Gbps information traffic.
(c) Currently serviced by 34-54 Mbps Internet bandwidths
(d) Serviced in the near future by next-Gen-internet/Internet-II (providing global connectivity over a 2.5 to 10 GB communication backbone)
(e) Also serviced by an 155 Mbps Intranet bandwidth, through a common SP-VPN backbone
(f) Accessing the computing power of the "Super-Computing Grid" – Ten teraflops (today)
(g) Having a Central Data Centre with a 30 Tera-byte storage, capable of expanding to peta-byte storage in future.

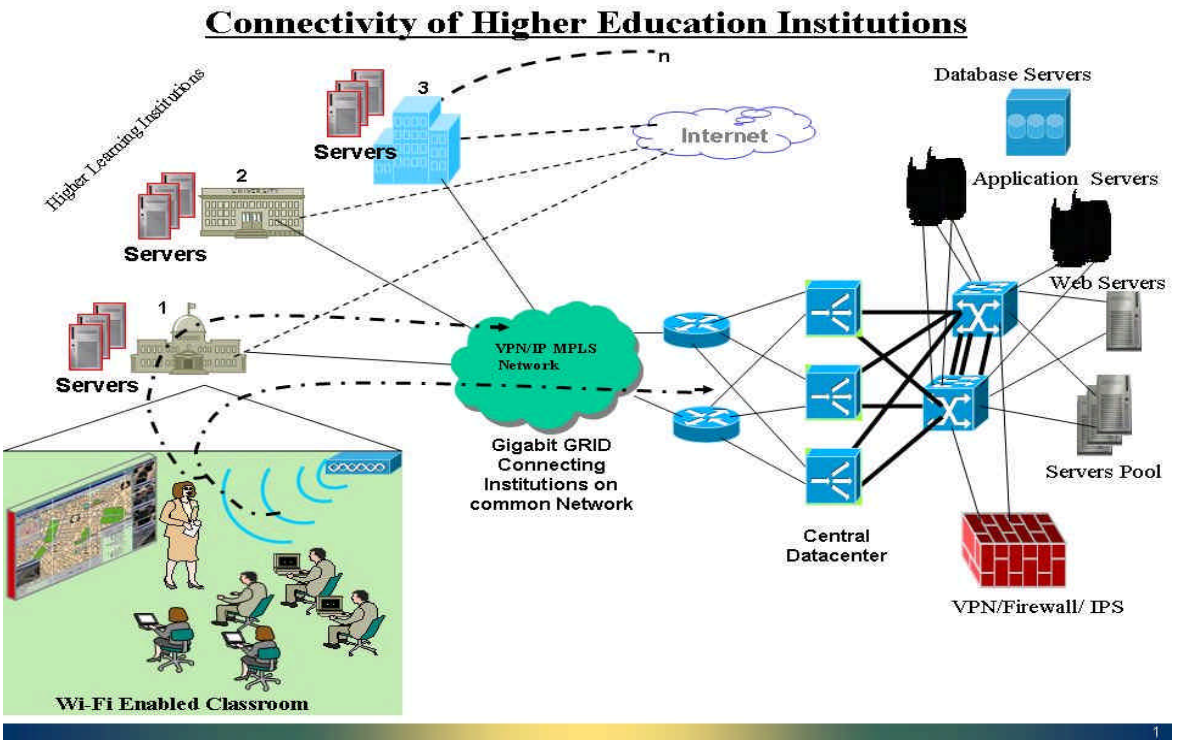
5.7. The objective of setting up the state-of-the-art IT-enabled infrastructure is:-

(a) To **connect our students to the "Knowledge world"** in cyberspace and encourage them to become netizens and members of global cyber

families.

(b) To enable them to embark on their own **self-exploratory** voyages into the ocean of knowledge and to enhance their **self-learning skills.**

(c) To initiate them into the art of **collaborative on-line problem solving and learning** and create virtual learning communities, synergistically expanding the knowledge horizons of participating members (Peer to Peer interaction).



The purpose is to knit the institutions together, obliterating their physical distances by creating --

(a) Country-wide-classrooms-through video conferencing

(b) Sharing of Resources (Libraries)

(c) Sharing of “Experiences in “University without walls”

(d) Deliver best quality classroom instruction, in video-conferencing and broadcast mode to much larger student audiences.

(e) Deliver long-distance tutorial interface between student and teacher by video-conferencing in an interactive mode.

(f) Set up and facilitate inter-institutional collaborative research by pooling together a critical mass of researchers working in areas of common interest.

(g) Encourage teachers to collaborate and create top-class multi-media content.

(h) Setting up Video-conferenced Tele-surgery class rooms in Medical Colleges connected with operation theatres used by the best surgeons countrywide, which would enable thousands of Medical Students in diverse locations, to witness the full surgical procedure followed by the surgeon-maestro.

(i) Enable Academia to link-up closely with Industry and work on a common R&D agenda.

5.8. Flowing from the above, we visualize that myriad applications will proliferate and of them some important ones will be -

(a) Countrywide classroom with classroom lectures to be retained in 'store forward' mode and made available on demand.

(b) On line access to electronic journals and other resources and digital libraries

(c) Networked virtual laboratories

(d) Annotated or unannotated genome databases.

(e) Virtual Surgical Operation Theater connected to Medical Colleges' classrooms.

(f) Tele-surgery OTs and Telemedicine

(g) E-mails

(h) Internet browsing

(i) Graphic content creation

(j) Teaching content creation

(k) Shared case-studies and other instruction material

(l) Collaborative Research

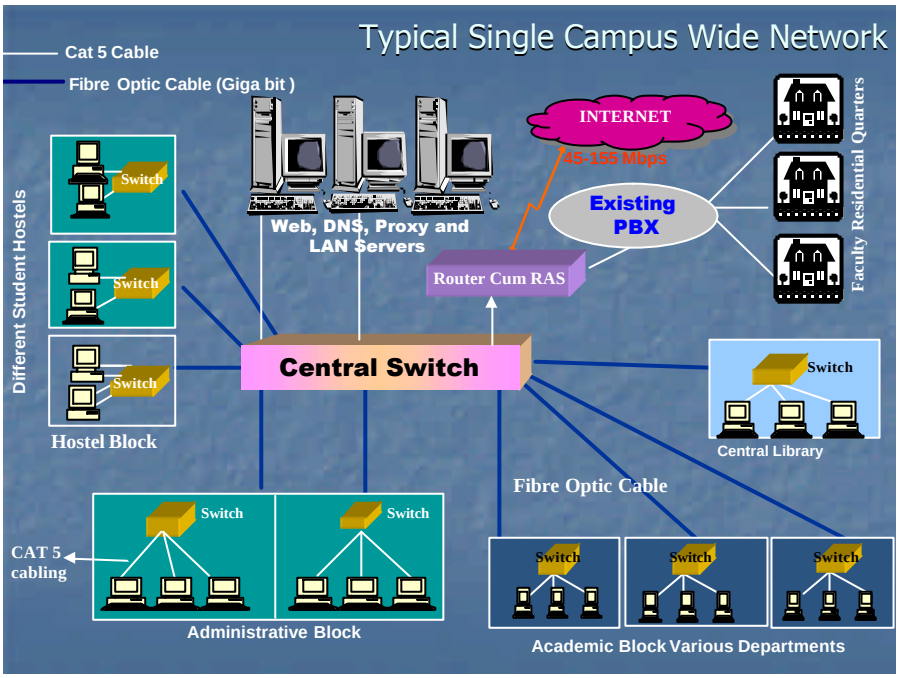
5.9 **The Oversight Committee feels that there is a need for a mindset change and it has to be accepted that the laptop computer should be seen as an entry-device to get connected to the knowledge world in cyberspace. Every student**

and every teacher should be given such a device on an ownership basis and the process should be facilitated by bank loans.

5.10. **Upgradation of IT infrastructure involves the following elements -**

I. **Establishment of a Campus- Wide Network**

- consisting of fibre optic cable as a backbone catering to 1 Gbps to 10 Gbps
- WiFi/ WiMax and unshielded untwisted pair (UTP)
- Network to be secured through
    - Intrusion prevention system
    - Firewall
    - Anti-virus gateways



II. **IT Infrastructure**

- Servers comprising
- Computer servers
    - DNS
    - Proxy
    - Mail
    - Personal computers and;

- Monitoring system

III. **Internal connectivity**

Evolutionary model:

- Established connectivity of 45 Mbps (uncompressed) at IITs and IIMs and;
- 34 Mbps at Central Universities including Agricultural Universities, NITs, medical institutions and other institutions listed at Annexure.

The bandwidth at the institutions may be scaled up later on depending upon the requirement.

IV. **Intra-Net and Grid**

- Established Grid of the institution by connecting them through common IP-VPN backbone of 155 Mbps bandwidth
- Enhance bandwidth of the backbone of 622 Mbps after a period of 3 years and;
- I Gbps after a period of 5 years.

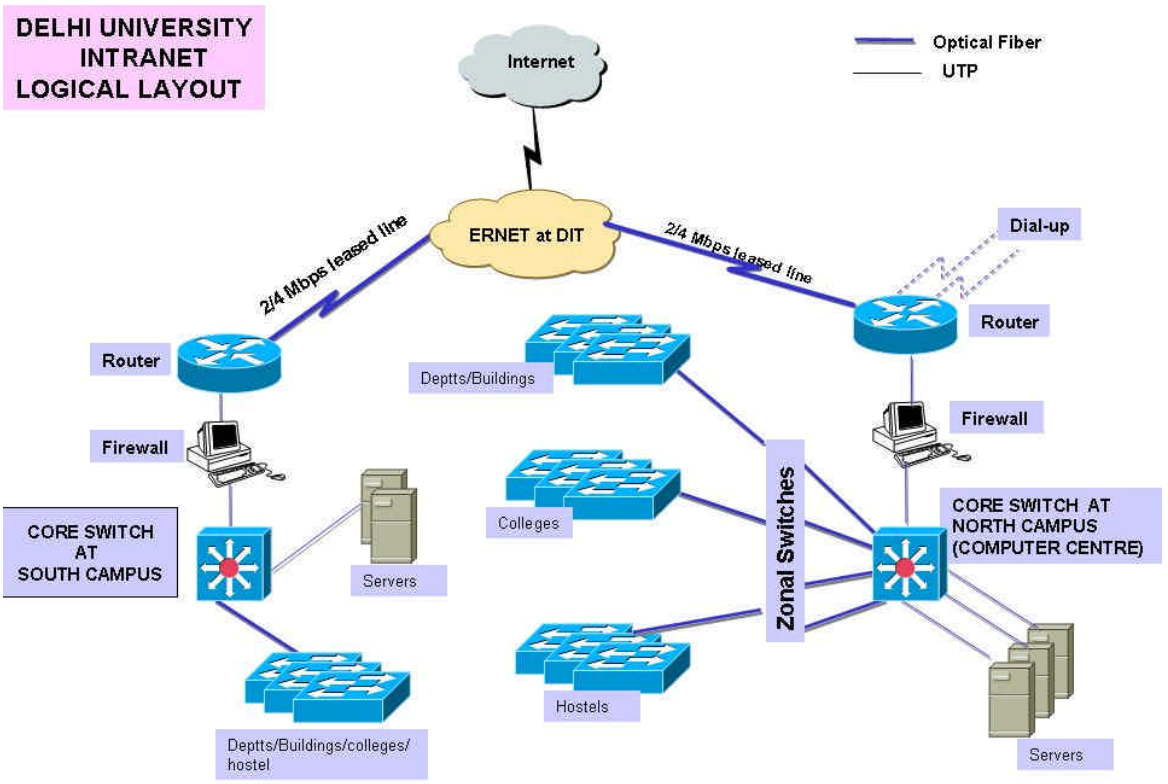
V. **Data Centre for hosting application**

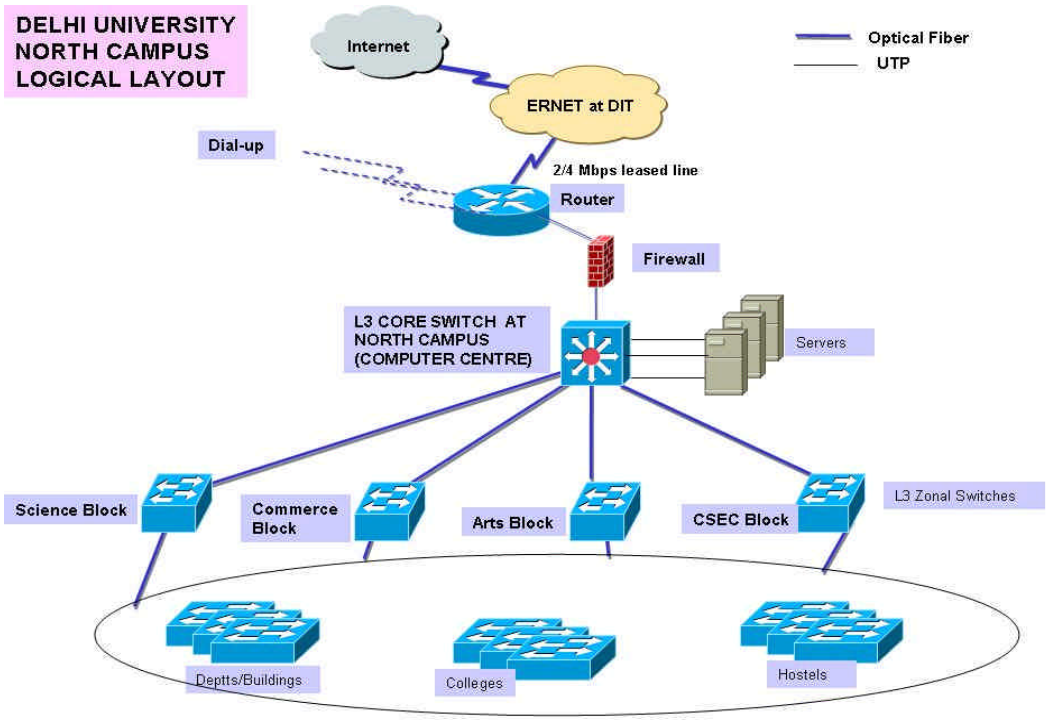
To host the applications and information listed in this report:

- Established centralized data center with adequate computing power and storage of 30 Tera Byte and;
- Data centers of adequate capacity at the institutions list at annexure.

VI. **Applications**

- Consolidate the efforts and applications existed at these institutions and deploy them centrally or distributed as feasible.
- Invest heavily in development of applications and content, hosting and libraries
- Development of virtual laboratories
- Virtual surgical operation theatre
- Tele-education


DELHI UNIVERSITY
INTRANET
LOGICAL LAYOUT
Internet
Optical Fiber
UTP
ERNET at DIT
2/4 Mbps leased line
2/4 Mbps leased line
Dial-up
Router
Router
Deptts/Buildings
Firewall
Firewall
Colleges
Zonal Switches
CORE SWITCH
AT
SOUTH CAMPUS
CORE SWITCH AT
NORTH CAMPUS
(COMPUTER CENTRE)
Servers
Hostels
Deptts/Buildings/colleges/
hostel
Servers


DELHI UNIVERSITY
NORTH CAMPUS
LOGICAL LAYOUT
Internet
Optical Fiber
UTP
ERNET at DIT
Dial-up
2/4 Mbps leased line
Router
Firewall
L3 CORE SWITCH AT
NORTH CAMPUS
(COMPUTER CENTRE)
Servers
Science Block
Commerce
Block
Arts Block
CSEC Block
L3 Zonal Switches
Deptts/Buildings
Colleges
Hostels

5.11. Budget outlays

The investment to establish/upgrade the IT infrastructure at the institutions so as to have global education system will be both of capital and recurring nature. The capital expenditure will be in the form of procurement of network equipment including security equipment, servers (hardware and software) and development of applications. The recurring expenditure will be towards Internet and Intra-Net bandwidth. These are:

Capital (first year, second year and third year)	-	Rs. 447.00 crore
Recurring (per annum)	-	Rs. 261.00 crore

The broad nature of equipment and investment thereon is at Tables V - A, B & C. Some of the institutions already have basic IT infrastructure. Therefore, the detailed topology and configuration may be decided depending upon the facilities existing at each of these institutions so as to naturally mesh the institutions as a single entity.

5.11.1 The provision of laptops to all students and faculty of IITs / IIMs / AIIMS / NIT and all the engineering, management and medical colleges of Central Universities may be mandatory. Provisioning of large budget outlays for providing laptop computers to other student and teacher need not be mandatory. As far as possible, an institutional finance mechanism would be put in place to enable the students and teachers to have laptops or home computers and the associated software to access the IT infrastructure of these institutions.

5.12. Outcome Budget

One common benefit arising out of this programme will be an IT enabled education system with built in resilience, reliability and availability. The institutions will be able to have peer to peer connectivity, and enabled to collaborate and build up connectivity and Intellectual Property Rights (IPR) in the frontier areas of technology and research. The hub of institutions will act as a repository to serve and feed to the institutions in the public and private domain in the country.

Table – V – A

Investment on Upgradation of IT Infrastructure at One Institution with Single Campus (1000-1500 Nodes)

S.No.	Description	Number of Institutions	Investment per Institute (in Rs. Crore)
One Time Capital Cost			
1)	**Campus Network Infrastructure for 1000-1500 nodes Single Campus** (Core/Zonal/Edge Switches, RAS, Wi-Fi/Wi-Max access points, Firewall, IPS, Fibre & UTP cabling & Components)	1	**1.75**
2)	**IT Infrastructure** (Servers(Web, DNS, Messaging, Proxy,EMS/NMS, Antivirus), OS, Personal Computers)	1	**0.75**
3)	**Proportionate approximate Cost towards Grid Datacenter(Data Center Infra for 30000 users)** (clustered Servers, SANs storage 30TB, Backup, firewall, IPS/IDS, Softwares, Anti-virus, EMS, Network Infrastructutre, etc.)	1	**0.8**
4)	**Proportionate Cost on Applications** (Intranet Applications to be run among these 84 institutions) investment in Phased out manner over a period of 3 Years	1	**1.55**
	First Year= Rs.0.60 Cr.		
	Second Year= Rs.0.60Cr.		
	Third Year= Rs.0.35Cr.		
		Total	**4.85**
Recurring Cost Per Annum			
5)	**Internet Connectivity**		**0.75**
6)	**Grid Connectivity of the Institute**		**0.25**
7)	**AMC cost**		**1.40**
		Total	**2.40**

Table – V –B

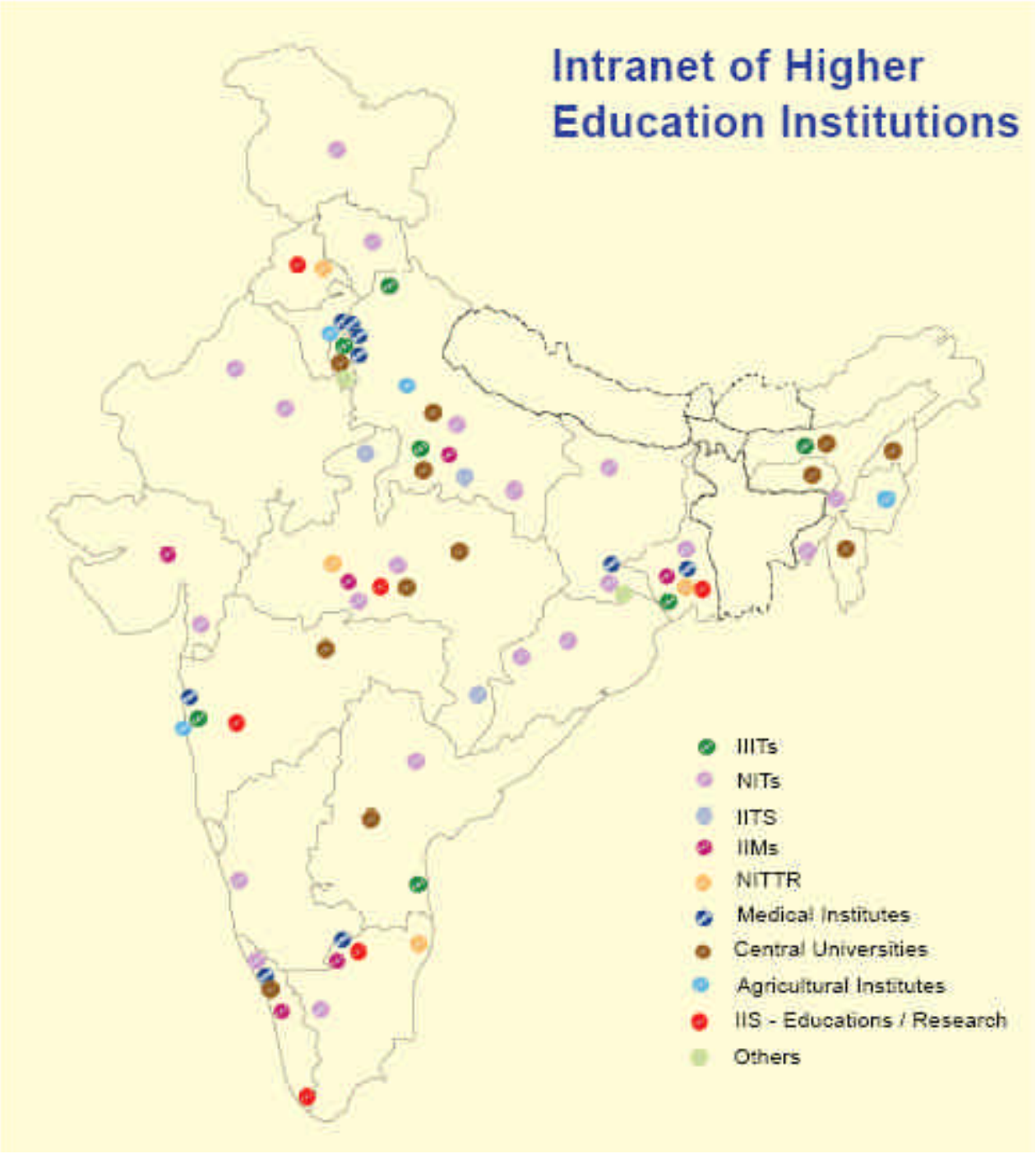
Investment on Upgradating IT Infrastructure at One Big Institution with multiple campuses (2500-3500 Nodes)

S.No.	Description	Number of Institutions	Investment per Institute (in Rs.Crore)
One Time Capital Cost			
1)	**Campus Network Infrastructure for 2500-3500 nodes with 2-3 multiple Campuses** (Core/Zonal/Edge Switches, RAS, Wi-Fi/Wi-Max access points, Firewall, IPS, Fibre & UTP cabling & Components)	1	**3.50**
2)	**IT Infrastructure** (Servers(Web, DNS, Messaging, Proxy,EMS/NMS, Antivirus), OS, Personal Computers)	1	**1.50**
3)	**Proportionate approximate Cost towards Grid Datacenter(Data Center Infra for 30000 users)** (clustered Servers, SANs storage 30TB, Backup, firewall, IPS/IDS, Softwares, Anti-virus, EMS, Network Infrastructure, etc.)	1	**0.8**
4)	**Proportionate Cost on Applications** (Intranet Applications to be run among these 84 institutions) investment in Phased out manner over a period of 3 Years	1	**1.55**
	First Year= Rs.0.60 Cr.		
	Second Year= Rs.0.60Cr.		
	Third Year= Rs.0.35Cr.		
	Total		**7.35**
Recurring Cost Per Annum			
5)	**Internet Connectivity to the Institute**		**1.20**
6)	**Grid Connectivity of the Institute**		**0.30**
7)	**AMC cost**		**2.25**
	Total		**3.75**

Table – V –C

Total Financial Requirements for IT infrastructure in 84 identified institutions

S. NO.	Description	Number of Institutions	Investment per Institutes (in Rs. Crore)	Total Investment (in Rs. Crore) (rounded off)
One time capital cost				
1.	**Campus network Infrastructure for 1500-2000 users at each Institute** (Core /Zonal/ Edge Switches, RAS, Wi-Fi/ Wi-Max access points, Firewall, IPS, Fibre & UTP cabling & Components)	**84**	**2.25**	189.00
2.	**IT Infrastructure** [Servers (Web, DNS, Messaging, Proxy, EMS/NMS, Anti-virus), OS, Personal Computers]	**84**	**0.75**	63.00
3.	**Grid Datacenter Infrastructure** (Clustered Servers, SANs storage 30 TB, Backup, firewall, IPS/IDS, Softwares, Anti-virus, EMS, Network Infrastructure, etc.)			65.00
4.	**Applications** (Intranet Applications to be run among these 84 institutions) investment in Phased out manner over a period of 3 years **First Year = Rs. 50 crore Second Year = Rs. 50 crore Third Year = Rs. 30 crore**			130.00
			Total	447.00
Recurring Cost Per Annum				
5.	Internet connectivity of 84 Institutes			91.00
6.	Grid Connectivity of 84 Institutions			20.00
7.	AMC on Item 1, 2, & 3 above			150.0
			Total	261.00


Intranet of Higher Education Institutions
IIITs
NITs
IITS
IIMs
NITTR
Medical Institutes
Central Universities
Agricultural Institutes
IIS - Educations / Research
Others

CHAPTER VI

ESTIMATE OF RESOURCES REQUIRED FOR THE EXPANSION

6.1 In overall terms, the total estimated expenditure on the expansion has now been assessed by the five Sub-Groups in their final reports at Rs.18,197.83 crore, as compared to the amount of Rs.16,563.34 crore that was included by the Oversight Committee in its interim report. The summary statement of additional student strength, faculty required and estimates of recurring and non-recurring expenditure that have been projected by the Groups are as at Table 6.1 and the year-wise break up is at Table 6.2.

6.2 The estimates in the final reports of the Groups are of varying quality, level of detail and reliability. The Oversight Committee had asked that DPRs be prepared for each institution before the final report was due for submission but this has not been possible in the case of all institutions, and even where these are available, they have not yet been scrutinized and accepted.

6.3 The Committee, in its discussions with the individual Groups, had stressed the need to estimate the additional infrastructure and manpower that would be required after taking into account the slack, if any, in the existing facilities as also the scope for using IT as a resource multiplier. While the Groups seem to have accepted this in principle, their expenditure projections, and the norms on which they are based, seem to have just extrapolated past trends. The Committee has had some input regarding global trends and the best practices being followed in the world's leading institutions. Based on this, and in consultation with experts, the Committee has developed a plan for a "Gyan Vahini" project, as has been explained in an earlier Chapter in this report. The total expenditure on this component of the expansion and upgradation project would be Rs. 1752 crore in 5 years. Apart from significantly enhancing the quality of instruction and learning, and bringing it close to the best levels in the world, this investment will certainly contribute to efficiency and to reducing the conventional costs of the higher education system.

6.4 While assessing the expenditure that would be required to implement the expansion, the Committee has also been conscious of the need to also keep in view the competing demands on the resources of the Government and the restrictions that have been imposed by statute on the fiscal and revenue deficits.

6.5 The Committee has analysed the expenditure projections given by the Groups against this background and its conclusions are as follows:

6.5.1 While the student-faculty ratio in the case of the Agriculture Institutes (excluding Central University, Imphal) would need to factor in the research, extension and teaching responsibilities that the staff have, and the fact that the increase in strength is largely at PG and Ph.D. levels, the Committee are not persuaded that this should be at around 5, as worked out by the Group. For Engineering colleges other than IITs, a student/faculty ratio of 12 has been recommended. Given this, the ratio for agriculture institutes could also be 12. The non-recurring expenditure estimate of the CIFE, Mumbai, seems to be out of line with that of the other institutes. For the Agriculture institutes, the Committee, therefore, recommends a norm of 12 for the student-faculty ratio, Rs.6 lakh for the non-recurring expenditure per student and overall recurring expenditure per student per year of Rs.1.4 lakh. For the CAU, Imphal, a student-faculty ratio of 16, recurring expenditure per student per year of Rs.0.45 lakh and non-recurring expenditure per student of Rs.6 lakh should be used. The Committee recommends that DPRs be prepared and/or scrutinized on this basis.

6.5.2 As far as the Management group is concerned, the student-faculty ratio that has been worked out by the institutes is approximately 14. The recurring expenditure per student per year has been worked out differently by different institutes and does not seem to be consistent with the student faculty ratio. The Committee feels that a norm of Rs.1.5 lakh per student per year should be more than adequate to cover the recurring expenditure. As far as non-recurring expenditure per student is concerned, the Committee notes that this has been recommended at Rs.15 lakh even in respect of IITs. Technology institutions have certain additional requirements such as laboratories and workshops which are not required in the management institutions. Hence a norm of approximately Rs.8 lakh per student should be adequate to cover the requirements of the Management institutes.

6.5.3 Central Universities: The Committee finds that the justification provided in the case of the additional expenditure estimates of the Central Universities is very inadequate. While the interim report showed the current intake and the additional intake at 110044 and 63005 respectively the numbers have now been revised downwards to 92011 and 49686. Though the student strength has now, therefore, been reassessed at much lower levels than earlier, the additional faculty required, which was 6615 as per the interim report, has been retained at virtually the same level at 6609 in final report. This would obviously not be a justifiable position. The Committee notes that the student-faculty ratio is quite low in the case of some of the Central Universities, and below even that of the IITs. The Sub-Group has not discussed the issue of student-faculty ratio. In the absence of any data in the matter, the Committee feels that the Central Universities should work out their DPRs on the basis of an average student-faculty ratio of 30. The recurring expenditure per student per year should not exceed Rs. 0.45 lakh. As far as non-recurring expenditure estimates are concerned, the University of Delhi has provided Rs.210 crore for the establishment of two new colleges and Rs.360 crore for shifting 9 existing Delhi Administration colleges. These are matters that are, per se, not related to the current expansion programme. The Committee has, therefore, not included these in the estimates. Considering the norm of Rs.7 lakh as non-recurring expenditure per student suggested for the NITs, and considering the fact that many of the courses (with a large student strength) run by the Central Universities are Arts and Commerce courses, without any residential requirements, the Committee feels that non-recurring expenditure of Rs.0.60 lakh per student would be appropriate.

6.5.4 As far as Engineering colleges are concerned, the Committee notes that the Group has itself recognized the widely varying requirements that have been projected by the various institutions and has, therefore, not accepted them. The Group has instead applied some broad rule-of-thumb indicators and has worked out the institution-wise details on that basis. The Committee has not been supplied with any details for accepting the student-teacher ratio and the norms for recurring and non-recurring expenditure that have been worked out by the Group. The Committee, however, finds on a broad comparison of these norms with that given by the other Groups that the norms for recurring expenditure per student per year appear to be over-estimated. The average Student Faculty ratio could also be increased using IT

and could be fixed at 10 for the IITs and 14 for the other institutions. The Committee recommend that a norm of Rs.1.7 lakh for the IITs and Rs.1.0 lakh for other institutions be adopted as the norm of recurring expenditure per student per year. For non-recurring expenditure, the norm could be taken at Rs.10.0 lakh per student for the IITs and Rs.6 lakh per student for the other institutions.

6.5.5 Regarding Medical institutions, the norms proposed vary widely as between the various institutions. This is also perhaps because of the different types of courses that are conducted in these institutions. The Medical Education Group has now substantially revised the figures of current intake and additional intake since the numbers earlier given in the interim report for AIIMS and PGIMER, Chandigarh, showed the total intake over 3 years instead of the annual intake. So the current intake and additional intake numbers have come down from 1528 and 789 to 993 and 565 respectively.

All the 12 Institutes covered by this Group have submitted DPRs. Details of additional faculty requirement, cost of the faculty on the basis of existing pay-scales, cost of equipment etc. have been provided.

Compared to the interim report, JIPMER (Rs.53 crore), VMMC (Rs.41 crore), PGIMER, Chandigarh (Rs.26 crore) have asked for higher recurring expenditure, while LHMC (New Delhi) (-10 crore) has asked for lower recurring expenditure. The total increase in recurring expenditure over the interim report is Rs.110 crore.

In the case of non-recurring expenditure also, the same three institutions, namely, JIPMER (Rs.70 crore), VMMC (Rs.160.1 crore), PGIMER, Chandigarh, (Rs.31 crore) have asked for higher amounts. The total increase in non-recurring expenditure is Rs.261.1 crore.

All the other items of expenditure are the same as in the interim report. However, this appears to be inconsistent with the revision now effected in the additional intake figures that have come down from 789 in the interim report to 565 in the final report. The reduction in additional intake (compared to the numbers given in the Interim Report) has occurred in AIIMS (250 to 102), PGIMER, Chandigarh (129 to 69) and VMMC (113 to 83) all of which have either maintained the same expenditure projections or have asked for higher amounts.

The Committee have reworked the recurring expenditure estimates by effecting a pro-rata reduction, based on the reduced intake, from those given in the interim report in respect of AIIMS, PGIMER and VMMC,

The non-recurring expenditure for medical education has been worked out based on the Tenth Five Year Plan expenditure/outlays of Rs.1815 crore. The expenditure requirement for the capacity expansion has been arrived at by taking 60% of the Tenth Plan outlays and adding 25% thereto for cost inflation. On this basis, the non-recurring expenditure comes to Rs.1360 crore.

6.6 To summarise, the norms on the basis of which the DPRs will be scrutinized will be as follows:

	Student: Faculty Ratio	**Recurring expenditure per student per year (Rs. in lakhs)**	**Non- recurring expenditure per student (Rs. in lakhs)**
Agricultural Institutes (other than CAU)	12	1.4	6.0
CAU	16	0.45	6.0
Management	14	1.50	8.0
Central Universities	30	0.45	0.6
Engineering – IITs Others	10 14	1.70 1.00	10.0 6.0
Medical	As discussed in para 6.5.5 above		

These norms will be applied only to the additional student intake/student population arising out of the expansion programme.

6.7 The Committee has earlier in the Report recommended the introduction of a National Merit Scholarships Scheme at an outlay of Rs. 1680 crore for the five year period. Emphasis has also been laid on harnessing the best quality manpower into research, tapping very early into the education stream and nurturing it right through the secondary and higher education stage. At an outlay of Rs. 100 crore per year, these fellowships, that will be tenable for a period of 5 years, will cost Rs. 1500 crore over the 5 year period. These provisions have also been built into the expenditure estimates. As explained earlier, the Committee has, after taking due note of the opinion of the representative of the Ministry of Finance that the provisions made for the IT infrastructure and the scholarships should be kept out of the expenditure

estimates, felt that these provisions are integral to the scheme for implementation of the reservation for the OBCs and is of the considered opinion that these are essential in order to implement this scheme successfully. Hence, the expenditure on this account has been built into the estimates. The summary statement of expenditure requirements as modified according to the above reasoning of the Committee can be seen at Table 6.3. The total expenditure over the five year period is now estimated at Rs. 17270.22 crore. The year-wise split of these requirements and the institution-wise breakup is at Table 6.4 and Table 6.5 respectively. The expenditure on the expansion will be Plan expenditure and will be included in the Plan estimates of the Ministries / Departments concerned. The Committee has, in Chapter II of this Report, recommended the establishment of three new IIMs and some more IIT like institutions. A recommendation has also been made for extending the present scheme of post-matric scholarships that are available to the SCs to the OBCs and to increase the rates of these scholarships. No amounts on these accounts have been built into these estimates. The Committee understands that some of these proposals are already independently under examination. These would have to be pursued separately.

Table 6.1

SUMMARY STATEMENT OF EXPENDITURE REQUIREMENTS

(As given in the Final Reports of the Group)

SECTOR	NO.OF INSTNS	EXISTING STUDENT INTAKE	ANNUAL ADDL. STUDENT INTAKE	ADDL. FACULTY REQUIRED	NON RECURRING EXP.	RECURRING EXP (5 YRS)	TOTAL EXP IN 5 YEARS
					Rupees crore		
Agriculture	5	825	454	187	102.75	92.71	195.46
Central Universities	17	92011	49689	6609	2702.11	2455.92	5158.03
Management	7	1791	966	139	511.32	177.48	688.80
Medical	11	993	565	N.A.	1783.98	1027.69	2811.67
Engineering	38	29671	16440	4919	5503.83	3840.04	9343.87
Grand Total		125291	68114	11854	10603.99	7593.84	18197.83

Table 6.2

YEARWISE PHASING OF EXPENDITURE

(As given in the Final Reports of the Group)

(RUPEES IN CRORES)

SECTOR	No of	Non-Recurring Expenditure						Recurring Expenditure						Total Expenditure					
	Instns	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Agriculture	5	99.76	2.01	0.58	0.20	0.20	**102.75**	12.27	16.32	20.14	21.64	22.34	**92.71**	112.03	18.33	20.72	21.84	22.54	**195.46**
Central Universities	17	1486.16	945.74	270.21	0.00	0.00	**2702.11**	212.24	424.48	606.40	606.40	606.40	**2455.92**	1698.40	1370.22	876.61	606.40	606.40	**5158.03**
Management	7	25.57	178.96	153.40	153.40		**511.32**	17.75	26.62	44.37	44.37	44.37	**177.48**	43.31	205.58	197.77	197.77	44.37	**688.80**
Medical	11	1316.50	268.88	143.42	40.50	14.68	**1783.98**	81.17	125.74	143.94	333.53	343.31	**1027.69**	1397.67	394.62	287.36	374.03	357.99	**2811.67**
Engineering	38	1680.54	1681.6	929.92	906.26	305.5	**5503.83**	320.77	641.55	823.55	1000.4	1053.73	**3840**	2001.31	2323.18	1753.5	1906.7	1359.2	**9343.87**
Total		**4608.53**	**3077.22**	**1497.53**	**1100.36**	**320.36**	**10603.99**	**644.20**	**1234.71**	**1638.40**	**2006.38**	**2070.15**	**7593.84**	**5252.72**	**4311.93**	**3135.93**	**3106.74**	**2390.51**	**18197.83**

Table 6.3

SUMMARY STATEMENT OF EXPENDITURE REQUIREMENTS *(As Modified)*

SECTOR	NO.OF INSTNS	EXISTING STUDENT INTAKE	ANNUAL ADDL. STUDENT INTAKE	ADDL. FACULTY REQUIRED	NON RECURRING EXP.	RECURRING EXP (5 YRS)	TOTAL EXP IN 5 YEARS
					(Rupees Crore)		
Agriculture	5	825	454	98	78.30	54.49	**132.79**
Central Universities	17	92011	49689	4495	809.02	2488.69	**3297.71**
Management	7	1791	966	138	154.56	130.41	**284.97**
Medical	11	993	565		1360.00	517.23	**1877.23**
Engineering	39	29671	16440	4552	4185.74	2559.78	**6745.52**
Total		**125291**	**68114**		**6587.62**	**5750.60**	**12338.22**
Merit Scholarship Scheme					0.00	1680.00	**1680.00**
Research Fellowship					0.00	1500.00	**1500.00**
IT Infrastructure					447.00	1305.00	**1752.00**
Grand Total					**7034.62**	**10235.60**	**17270.22**

Table 6.4

YEARWISE PHASING OF EXPENDITURE

(As Modified)
(RUPEES IN CRORES)

S.No.	SECTOR	No of Inst.	Non-recurring Expenditure						Recurring Expenditure						Total Expenditure					
			Year 1	Year 2	Year 3	Year 4	Year 5	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1	Agriculture	5	34.83	21.92	11.06	8.12	2.37	**78.30**	4.73	8.75	11.76	14.40	14.85	**54.49**	39.57	30.67	22.81	22.52	17.22	**132.79**
2	Central Universities	17	359.92	226.48	114.24	83.94	21.[illegible]	**809.02**	216.08	399.68	536.94	657.54	678.45	**2488.69**	576.00	626.16	651.18	741.48	702.89	**3297.71**
3	Management	7	68.76	43.27	21.83	16.04	4.67	**154.56**	11.32	20.94	28.14	34.46	35.55	**130.41**	80.08	64.21	49.96	50.49	40.22	**284.97**
4	Medical	11	605.04	380.73	192.04	141.11	41.08	**1360.00**	44.91	83.07	111.59	136.66	141.00	**517.23**	649.95	463.79	303.64	277.77	182.09	**1877.23**
5	Engineering	39	1862.15	1171.78	591.06	434.30	126.44	**4185.74**	222.25	411.10	552.28	676.32	697.83	**2559.78**	2084.41	1582.88	1143.34	1110.62	824.27	**6745.52**
6	Total		**2930.70**	**1844.18**	**930.23**	**683.51**	**199.00**	**6587.62**	**499.30**	**923.54**	**1240.71**	**1519.37**	**1567.68**	**5750.60**	**3430.00**	**2767.72**	**2170.94**	**2202.88**	**1766.68**	**12338.22**
7	Merit Scholarship Scheme								120.00	240.00	360.00	480.00	480.00	**1680.00**	120.00	240.00	360.00	480.00	480.00	**1680.00**
8	Research Fellowship								100.00	200.00	300.00	400.00	500.00	**1500.00**	100.00	200.00	300.00	400.00	500.00	**1500.00**
9	IT Infrastructure		367.00	50.00	30.00			**447.00**	261.00	261.00	261.00	261.00	261.00	**1305.00**	628.00	311.00	291.00	261.00	261.00	**1752.00**
10	Grand Total		**3297.70**	**1894.18**	**960.23**	**683.51**	**199.00**	**7034.62**	**980.30**	**1624.54**	**2161.71**	**2660.37**	**2808.68**	**10235.60**	**4278.00**	**3518.72**	**3121.94**	**3343.88**	**3007.68**	**17270.22**

Table 6.5

INSTITUTION-WISE EXPENDITURE REQUIREMENTS

(As Modified)

Sl.No.	Name of the Institution	Additional Expenditure Estimate (Rs. Crore) Recurring Expenditure	Non-Recurring Exp.	Total Exp. (Rec.+Non-Recurring)
	Agriculture			
1	Indian Agricultural Research Institute, New Delhi	14.11	14.46	28.57
2	Indian Veterinary Research Institute, Izatnagar	11.47	11.58	23.05
3	Central Institute of Fisheries Education, Mumbai	5.75	5.76	11.51
4	National Dairy Research Institute, Karnal	14.84	15.78	30.62
5	Central Agricultural University Imphal	8.32	30.72	39.04
	Total	**54.49**	**78.30**	**132.79**

Sl. No	Name of the Institution	Additional Expenditure Estimate (Rs. Crore) Recurring Expenditure	Non-Recurring Exp.	Total Exp. (Rec.+Non-Recurring)
	Management			
1	IIM Ahmedabad	20.39	24.16	44.55
2	IIM Kolkata	21.87	25.92	47.79
3	IIM Bangalore	18.90	22.40	41.30
4	IIM Lucknow	19.85	23.52	43.37
5	IIM Indore	13.10	15.52	28.62
6	IIM Kozhikode	13.10	15.52	28.62
7	NITIE Mumbai	23.22	27.52	50.74
	Total	**130.41**	**154.56**	**284.97**

Sl. No	Name of the Institution	Additional Expenditure Estimate (Rs. Crore) Recurring Expenditure	Non-Recurring Exp.	Total Exp. (Rec.+Non-Recurring)
	Medical			
1	AIIH&PH, Kolkata	46.55	**9.18**	**55.73**
2	AIIMS, New Delhi	206.42	**545.49**	**751.91**
3	AIIPMER. Mumbai	1.43	**2.50**	**3.93**
4	CIP, Ranchi	31.52	**107.99**	**139.51**
5	Dr. RML Hospital, New Delhi	6.28	**0.00**	**6.28**
6	JIPMER, Pondicherry	32.06	**20.03**	**52.09**
7	LHMC, New Delhi	56.30	**331.01**	**387.31**
8	NIHFW, New Delhi	7.91	**0.42**	**8.33**
9	NIMHANS, Bangalore	2.49	**0.00**	**2.49**
10	PGIMER, Chandigarh	112.15	**315.77**	**427.92**
11	Safdarjang Hospital, New Delhi/VMCC, New Delhi	14.12	**27.62**	**41.74**
	TOTAL	**517.23**	**1360.00**	**1877.23**

Sl. No	Name of the Institution	Additional Expenditure Estimate (Rs. Crore)		
		Recurring Expenditure	Non-Recurring Exp.	Total Exp. (Rec.+Non-Recurring)
	Engineering			
	Part A - IITs/IISc			
1	Indian Institute of Technology, Delhi	177.53	278.50	456.03
2	Indian Institute of Technology, Kanpur	248.86	387.30	636.16
3	Indian Institute of Technology, Guwahati	85.44	138.20	223.64
4	Indian Institute of Technology, Kharagpur	272.92	438.90	711.82
5	Indian Institute of Technology, Roorkee	188.22	308.00	496.22
6	Indian Institute of Technology, Madras	139.18	240.40	379.58
7	Indian Institute of Technology, Bombay	163.40	267.00	430.40
8	Indian Institute of Science, Bangalore	111.69	204.50	316.19
	Total Part A	**1387.25**	**2262.80**	**3650.05**
	Part B - NITs			
1	Motilal Nehru National Institute of Technology, Allahabad - 211004, UP	55.59	90.60	146.19
2	Maulana Azad National Institute of Technology, Bhopal - 462007, MP	65.93	110.28	176.21
3	National Institute of Technology, Calicut - 673601, Kerala	49.81	81.24	131.05
4	National Institute of Technology, Durgapur - 713209, WB	60.95	99.54	160.49
5	National Institute of Technology, Hamirpur - 177005, HP	29.61	50.82	80.43
6	Maulviya National Institute of Technology, Jaipur - 302017, Rajasthan	56.98	91.68	148.66
7	Dr. B R Ambedkar National Institute of Technology, Jalandhar - 144011, Punjab	43.04	70.86	113.90
8	National Institute of Technology, Jamshedpur - 831014, Jharkhand	37.19	62.28	99.47
9	National Institute of Technology, Kurukshetra - 136119, Haryana	47.28	77.10	124.38
10	Visvesvaraya National Institute of Technology, Nagpur, MS	42.64	71.04	113.68
11	National Institute of Technology, Patna - 800005, Bihar	39.87	67.86	107.73
12	National Institute of Technology, Raipur - 492010, Chhattishgarh	54.47	92.16	146.63
13	National Institute of Technology, Rourkela - 769008, Orissa	48.71	78.12	126.83
14	National Institute of Technology, Silchar, Assam	26.94	45.06	72.00
15	National Institute of Technology, Silchar - 190006, J&K	37.18	66.48	103.66
16	National Institute of Technology, Sardar Vallabhbhai National Institute of Technology, Surat - 395007, Gujarat	44.40	73.26	117.66
17	National Institute of Technology, Surathkal - 575025, Karnataka	54.56	88.02	142.58
18	National Institute of Technology, Tiruchirappli - 620015, TN	91.71	143.88	235.59
19	National Institute of Technology, Warangal - 50604, AP	55.64	89.28	144.92
20	National Institute of Technology, Agartala - 799055, Tripura	19.18	32.88	52.06
	Total Part B	**961.68**	**1582.44**	**2544.12**
	Part C - Other Central Govt. Technical Edn. Institute			
1	National Institute of Technical Teacher's Training Research, Chandigarh	12.51	16.68	29.19
2	National Institute of Technical Teacher's Training Research, Kolkata	2.61	3.48	6.09
3	National Institute of Technical Teacher's Training Research, Chennai	0.90	1.20	2.10
4	National Institute of Technical Teacher's Training Research, Bhopal	0.00	0.00	0.00
5	National Institute of Foundry & Forge Technology, Ranchi	10.00	15.36	25.36
6	Indian Insititute of Information Technology, Allahabad	37.56	59.22	96.78
7	ABV Indian Institute of Information Teschnology & Management, Gwalior	14.28	23.34	37.62
8	Indian Insititute of Information Technology Design & Manufacturing, Jabalpur	18.52	31.20	49.72
9	School of Planning & Architecture, New Delhi	14.10	23.70	37.80
10	Indian School of Mines, Dhanbad	72.01	119.28	191.29
11	Sant Longowal Institute of Engineering & Technology, Longowal	28.36	47.04	75.40
	Total Part C	**210.85**	**340.50**	**551.35**
	Total - Engineering	**2559.78**	**4185.74**	**6745.52**

Sl. No	Name of the Institution	Additional Expenditure Estimate (Rs. Crore)		
		Recurring Expenditure	Non-Recurring Exp.	Total Exp. (Rec.+Non-Recurring)
	Central Universities			
1	Banaras Hindu University	199.35	64.48	263.83
2	University of Delhi	1336.38	436.60	1772.97
3	Hyderabad University	24.30	7.77	32.07
4	Jamia Millia Islamia	131.77	42.99	174.76
5	Jawaharlal Nehru University	45.18	14.58	59.76
6	Pondicherry University	25.23	7.48	32.71
7	Visva Bharati	64.44	20.28	84.72
8	Assam University	30.33	9.37	39.70
9	Tezpur University	12.04	3.71	15.75
10	Maulana Azad National Urdu University	9.96	2.95	12.92
11	M.G Antarashtriya Hindi Vishwavidyalaya	4.37	1.30	5.67
12	University of Allahabad	536.10	177.02	713.12
	Total Part A	**2419.47**	**788.51**	**3207.99**
	Part B			
13	North Eastern Hill University	23.00	6.82	29.82
14	Nagaland University	11.99	3.55	15.54
15	Mizoram University	7.09	2.10	9.19
16	Babasahab Bhimrao Ambedkar University	5.91	1.75	7.67
17	Manipur University	21.22	6.29	27.51
	Total Part B	**69.21**	**20.51**	**89.72**
	Total (Part A +Part B)	**2488.69**	**809.02**	**3297.71**

CHAPTER VII

The Way Forward

7.1. As indicated earlier in this report, this opportunity for **expansion, inclusion and excellence** should only be the beginning of a larger process, which is to build a knowledge society in India and allow the country to take its rightful place in the comity of nations. **Our recent economic growth and the values of knowledge and education carried forward by a billion diverse people, point to India's potential future as a knowledge society. Other countries that visualize a similar future have planned massive investments in order to enhance both the quality and quantity of higher education and research. China, for example, has made substantial increases in its allocation of resources of higher education. In the first phase, China has provided a grant of US $ 125 million to each of the 10 leading universities and US $ 225 million to Beijing and Tsinghua Universities. In the second phase, China proposes to provide additional grants to 30 universities, with the objective of having 100 high-quality universities in China in the 21st century and with 15% of its citizens in the age group 18-22 receiving tertiary education.**

7.2 **India has suffered in the past because of severe under investment in higher education. This has been caused partly by the thinking that looks at primary and higher education in an either or manner. It is very clear, however, that large public investment is needed in both sectors. As Prime Minister Dr. Manmohan Singh said, while launching the Knowledge Commission, "At the bottom of the knowledge pyramid, the challenge is one of improving access to primary education. At the top of the pyramid there is need to make our institutions of higher education and research world class. The time has come for India to embark on a second wave of nation building. Denied this investment, the youth will become a social and economic liability."**

7.3 **As indicated by the Prime Minister, we do need a second wave of nation building. If we do that seriously and earnestly, we will be in a**

position to develop human resources that are capable of utilizing available knowledge to create wealth and of generating new knowledge and innovation. If we do not, India would have lost out in the intensely competitive, globalized environment of today. It is beyond doubt or dispute that a country with a strong education foundation can have a much higher level of social and economic development. This report is merely a starting point in this direction. We need to draw up a much more comprehensive road map for the future, a vision document. The **Theme Paper** addresses some of these issues, where *`out of the box"* thinking would be necessary; flexibility in faculty recruitment and remuneration, flexible curricula, an environment that promotes and rewards creativity, a very strong research base, an inclusive system, an excellent technological foundation, an attractive investment policy, the development of brand equity and a system of continuous review to ensure that the momentum of this exercise is maintained.

New Delhi

30th September 2006

(Rajeeva Ratna Shah)

Member Secretary, Oversight Committee &
Member Secretary, Planning Commission

Appendices

Appendix - 1

Treatment of the Creamy Layer

1.1 One of the main related issues mentioned in the Interim Report was the application of the ***creamy layer*** concept in respect of reservation for **OBCs**. During the deliberations of the Oversight Committee, one view which was expressed was that the Committee must give its recommendations in respect of the "creamy layer" problem. The fact that the Government has not taken a decision in respect of applying the "creamy layer" should not preclude the Committee from giving a categorical recommendation in this regard. During the discussion, in the final meeting of the Committee, however, it was felt that this was beyond the mandate of the Committee.

1.2 It may be recalled that the issue of the 'creamy layer' was not examined in detail in the report of the Backward Classes Commission (popularly referred to as the ***Mandal Commission***) in 1980. The matter however, come up before the Supreme Court in Writ Petition (in Civil) No.930 of 1990, delivered on the 16th November, 1992 (*Indira Sawhney & others Vs. Union of India & others*). In the Judgment, though their Lordships made their observations separately, almost all of them were of the view that the socially and educationally, as well as economically advanced members of the **OBCs** should be excluded from the benefits of reservation in view of the fact that the basis for such reservation is ***class*** and not ***caste*****.**

1.3 The creamy layer persons/sections defined by the Expert Committee which were accepted and notified by the Government vide O.M. No. 36012/22/93-Estt. (SCT) dated 8.9.1993 are classified into the following categories:-

Creamy Layer	
Description of category	To whom rule of exclusion will apply
I. Constitutional Posts	Sons and daughter(s) of – (a) President of India; (b) Vice-President of India; (c) Judges of the Supreme Court and of the High Courts; (d) Chairman and Members of UPSC and of the State Public Service Commission; Chief Election Commissioner; Comptroller and Auditor-General of India;

	(e) Persons holding constitutional positions of like nature.
II. Service Category A. Group 'A'/Class I Officers of the All India Central and State Services (Direct Recruits)	Son(s) and daughter(s) of – (a) parents, both of whom are Class I officers; (b) parents, either of whom is a Class I officer; c) parents, both of whom are Class I officers, but one of them dies or suffers permanent incapacitation; (d) parents, either of whom is a Class I officer and such parents dies or suffers permanent incapacitation and before such death or such incapacitation has had the benefit of employment in any International Organisation like UN, IMF, World bank, etc., for a period of not less than 5 years; (e) parents, both of whom are Class I officers die or suffer permanent incapacitation and before such death or such incapacitation of the both either of them has had the benefit of employment in any International Organisation like UN, IMF, World Bank, etc. for a period of not less than 5 years; Provided that the rule of exclusion shall not apply in the following cases:- (a) Sons and daughters of parents either of whom or both of whom are Class I officers and such parent(s) dies/die or suffer permanent incapacitation; (b) A lady belonging to OBC category has got married to a Class I officer, and may herself like to apply for job.
B. Group 'B'/Class II Officers of the Central and State Services (Direct Recruitment)	Son(s) and daughter(s) of – (a) parents, both of whom are Class II officers; (b) parents of whom only the husband is a Class II officer and he gets into Class I at the age of 40 or earlier; (c) parents, both of whom are Class II officers and one of them dies or suffers permanent incapacitation and either one of them has had the benefit of employment in any International Organisation UN, IMF, World Bank, etc., for a period of not less than 5 years before such death or permanent incapacitation; (d) parents of whom the husband is a Class I officer (direct recruitment or pre-forty promoted) and the wife is a Class II officer and the wife dies; or suffers permanent incapacitation; and (e) Parents, of whom the wife is a Class I officer (Direct Recruit or pre-forty promoted) and the husband is a Class II officer and the husband dies or suffers permanent incapacitation; Provided that the rule of exclusion shall not apply in the following cases:- Sons and daughters of –

	(a) Parents both of whom are Class II officers and one of them dies or suffers permanent incapacitation. (b) Parents, both of whom are Class II officers and both of them die or suffer permanent incapacitation, even though either of them has had the benefit of employment in any International Organisation like UN, IMF, World Bank, etc, for a period of not less than 5 years before their death or permanent incapacitation.
C. Employees in Public Sector Undertakings, etc.	The criteria enumerated in A and B above in this category will apply mutatis mutandis to officers holding equivalent or comparable posts in PSUs, Banks, Insurance Organisations, Universities, etc., and also to equivalent or comparable posts and positions under private employment, pending the evaluation of the posts on equivalent or comparable basis in these institutions, the criteria specified in Category VI below will apply to the officers in these Institutions.
III. Armed forces including Paramilitary Forces (Persons holding civil posts are not included).	Son(s) and daughter(s) of parents either or both of whom is or are in the rank of Colonel and above in the Army and to equivalent posts in the Navy and the Air Force and the Paramilitary Forces; Provided that – (i) If the wife of an armed forces officer is herself in the armed forces (i.e., the category under consideration) the rule of exclusion will apply only when she herself has reached the rank of Colonel; (ii) the service ranks below Colonel of husband and wife shall not be clubbed together; (iii) if the wife of an officer in the armed forces is in civil employment, this will not be taken into account for applying the rule of exclusion unless she falls in the service category under item No. II in which case the criteria and conditions enumerated therein will apply to her independently.
IV. Professional class and those engaged in Trade and Industry (i) Persons engaged in profession as a doctor,lawyer, chartered accountant, income tax consultant, financial or management consultant, dental surgeon, engineer, architect, computer specialist, film artists and other film professional, author, playwright, sports person, sports professional, media professional or any other vocations of like status.	Criteria specified against Category VI will apply

(ii) Persons engaged in trade, business and industry.	Criteria specified against Category VI will apply. EXPLANATION – (i) Where the husband is in some profession and the wife is in a Class II or lower grade employment, the income/wealth test will apply only on the basis of the husband's income. (ii) If the wife is in any profession and the husband is in employment in a Class II or lower rank post, then the income/wealth criterion will apply only on the basis of the wife's income and the husband's income will not be clubbed with it.
V. Property Owners A. Agricultural holding.	Son(s) and daughter(s) of persons belonging to a family (father, mother and minor children) which owns- (a) only irrigated land which is equal to or more than 85% of the statutory ceiling area, or (b) both irrigated and unirrigated land, as follows:- (i) The rule of exclusion will apply where the pre-condition exists that the irrigated area (having been brought to a single type under a common denominator) 40% or more of the statutory ceiling limit for irrigated land (this being calculated by excluding the unirrigated portion). If this pre-condition of not less than 40% exists, then only the area of unirrigated land will be taken into account. This will be done by converting, the unirrigated land on the basis of the conversion formula existing, into the irrigated type. The irrigated area so computed from unirrigated land shall be added to the actual area of irrigated land and if after such clubbing together the total area in terms of irrigated land is 85% or more of the statutory ceiling limit for irrigated land, then the rule of exclusion will apply and disentitlement will occur.) (ii) The rule of exclusion will not apply if the land holding of a family is exclusively unirrigated.
B. Plantations (i) Coffee, tea, rubber, etc. (ii) Mango, citrus, apple plantations, etc.	Criteria of income/wealth specified in Category VI below will apply. Deemed as agricultural holding and hence criteria at A above under this category will apply. Criteria specified in Category VI below will apply.
C. Vacant land and/or buildings in urban Agglomerations.	EXPLANATION:- Building may be used for residential, industrial or commercial purpose and the like two or more such purposes.

VI. Income/Wealth Test	Son(s) daughter(s) – **(a) Persons having gross annual income of Rs. 1 lakh or above or possessing wealth above the exemption limit as prescribed in the Wealth Act for a period of three consecutive years. (b) Persons in Categories I, II, III and V-A who are not disentitled to the benefit of reservation but have income from other sources of wealth which will bring them within the income/wealth criteria mentioned in (a) above. EXPLANATION:- (i) Income from salaries or agricultural land shall not be clubbed; (ii) The income criteria in terms of rupee will be modified taking into account the change in its value every three years. If the situation, however, so demands, the interregnum may be less. EXPLANATION—Wherever the expression "permanent incapacitation" occur in this schedule, it shall mean incapacitation which results in putting an officer out of service.

Note: ** The Income limit has since been raised from Rs. 1 lakh to Rs.2.5 lakh w.e.f. 09.03.2004 vide DOP2T O.M, No. 36033/3/2004-ESTT(Res) dated 09.03.2004.

Source: National Commission for Backward Classes website

1.4 The principles upheld in *Indira Sawhney* have been maintained by the Supreme Court and reiterated in *JT 1999 (9) SC 557* delivered on 13/12/1999. *Indira Sawhney* clearly lays down that the creamy layer concept will **not** be applicable to the Scheduled Castes and Scheduled Tribes, and any misapprehensions on this account would be unfounded. In fact, Prime Minister Rajiv Gandhi also vehemently propounded the theory of excluding the creamy layer as he was apprehensive of the disadvantaged classes losing the benefits of reservation and upper layer of OBCs who are well of and have enjoyed the benefits for two or three generations continuing to be protected at the cost of the voiceless and deprived classes of OBCs for whom the process of empowerment is really meant.

1.5. **The matter of applying the creamy layer concept in respect of reservations for students belonging to the OBCs in institutions of higher learning was discussed in the committee. The Committee considered the argument that the idea of allowing the *creamy layer* the benefit of reservation would work against the interests of the poorer members of the OBCs and**

thereby defeat the underlying purpose of making higher education inclusive and equity based.

1.6. Appendix-2 examines in detail the status of the socio-economic development of OBCs in respect of such parameters as relate to poverty, health, education, unemployment, workforce participation, land ownership etc. The analysis of NSS data clearly brings out that inclusion of the *creamy layer* will result in reserved seats getting pre-empted by the OBCs from the top two income deciles at the cost of the poorer income deciles of the OBCs. *Thus almost all rural OBCs as well as Urban OBCs from the Northern, Central and Eastern regions of India will be deprived of the intended benefit of reservation*.

1.7. On the other hand, it was argued that if the *creamy layer* of OBCs is denied access to reservation in education *pari-passu* with the principle applied in the case of employment, the reserved seats may not get filled up, again defeating the purpose of bringing in reservation for the OBCs. In a case study from Karnataka (included in Annexure X), it has been clearly shown that the OBC quotas have been utilized without any compromise with academic excellence in a situation where the creamy layer has been excluded. The apprehension that seats will not be filled up if the creamy layer is excluded has been comprehensively shown to be unfounded. The case study shows that the performance of students from below the creamy layer is outstanding and much better than general category students.

1.8. Nevertheless, to allay the fear of reserved seats remaining vacant, as a *via-media*, an alternative formulation was submitted to the Committee which suggested that the *creamy layer* should be excluded in the first instance and a provision should be made that, keeping in view the prescribed threshold of qualifying marks, if after admitting non-creamy layer OBC candidates some reserve quota seats remain vacant, access could then be given to the *creamy layer* candidates in order of merit, after others are considered. This in fact amounts to giving non-creamy layer OBCs a right of way over the creamy layer OBCs.

1.9. **Having considered the pros & cons and the *via-media*, it was, however, felt that the Oversight Committee should leave it to the Government of India to**

take a decision regarding the applicability of the *creamy layer* concept and the alternative proposed could be considered.

1.10 At the last meeting of the Committee held on 27th September, 2006, a view was expressed that even a reference to the creamy layer would not be appropriate, keeping in view the limited mandate of the Committee. It was also claimed that the short study made on the status of *OBCs* was based on inadequate data, while some of the other members felt that the creamy layer concept should not be covered as the Central Educational Institutions (Reservation in Admissions) Bill, 2006, which has been introduced in Parliament, makes no mention of a 'creamy layer'.

1.11 The Oversight Committee finds it difficult to subscribe to this extreme view. In fact there are major implementation level implication where one set of initiatives will be required if the creamy layer is excluded from reservations and an entirely different set of initiatives will be required if creamy layer is allowed to avail reservations.

1.12 The study made in the Planning Commission takes a broad look at the status of the OBCs and is reproduced at Appendix 2.

1.13 In case it is decided not to exclude the 'creamy layer', the poorest among the *OBCs* will be placed at a disadvantage.

Appendix - 2

Socio-Economic Development of OBCs

1.1 At the outset it has to be stated that there is a major limitation on historical data about the socio-economic position of OBCs. The Registrar General of India (RGI) and Census Commissioner has discontinued collection of caste-wise information (all except SCs and STs) since the 1931 Census. Accordingly, there are no time-series on the demographic spread of OBCs and their access to amenities. Even the **Mandal Commission** has used 1931 Census data.

1.2. However, since 1998-99 some data relating to the Socio-economic position/Status of development of OBCs has started appearing in various surveys viz.

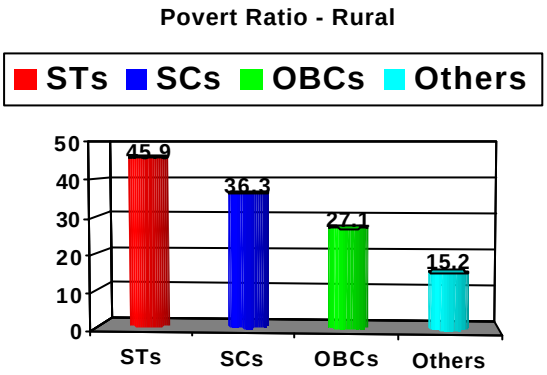
(a) 1998-99 – National Family Health Survey
(b) 1999-2000 – Consumption Expenditure Sample Survey of **NSSO**
(c) 1999-2000 – NSSO report on Employment
(d) 1999-2000 – NSSO report on Land Holdings
(e) 2002-2003 –NSSO report on Household assets and liabilities or Asset and Debt Survey
(f) 2004-05 – NSSO Draft report on Employment

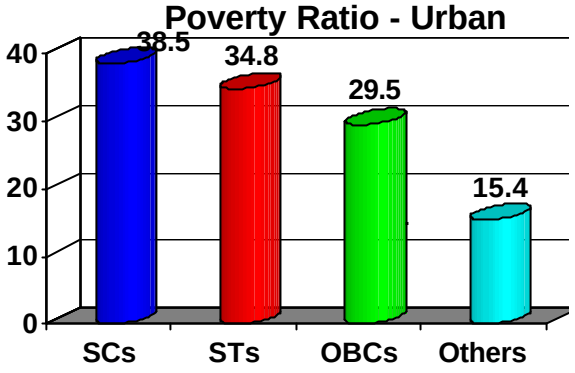
A detailed list of the reports emerging from these samples as well as large sample surveys from NSSO in which reference has been made to OBCs is at Annexure. These reports are available on the NSSO website at the following address – www.

1.3 Socio-economic position of OBCs

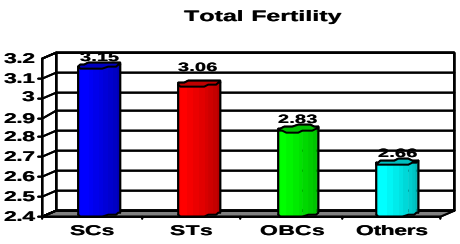
Emerging from the analysis of the NSSO data contained in various NSSO Surveys and Reports published since 1998-99 the following points emerge: -

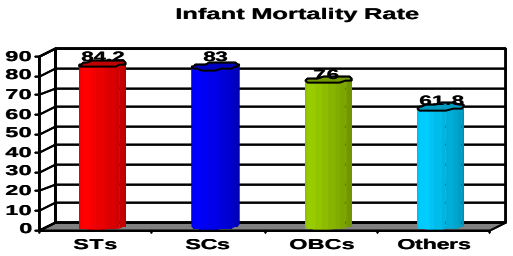
1.3.1 The incidence of poverty among OBCs is intermediate to that among SC/STs on the one hand and the non-SC-ST-OBC ('Others').on the other. **In general, poverty among SC/STs is 3 times that of the 'Others', while for OBCs it is double that of the 'Others'.** (See Appendix II – A).

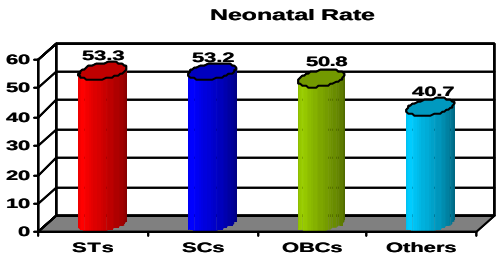


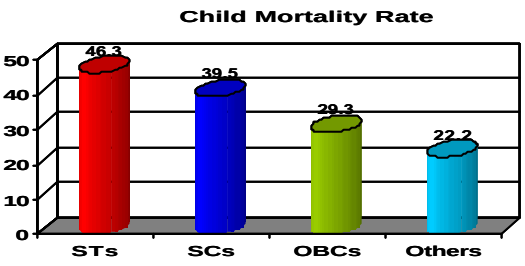


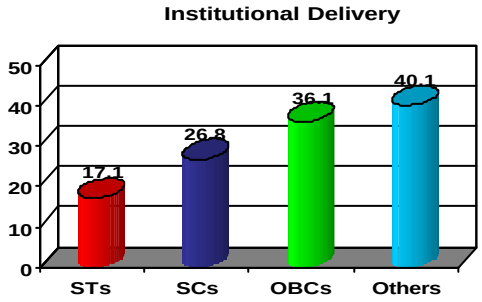
1.3.2 As far as the health indicators are concerned, the OBCs are much closer to 'Others' than to SC/STs, who are far behind. In fact, in certain states such as Assam, Haryana, Karnataka, Maharashtra and West Bengal, the health indicators for OBCs may be superior to that of Others. (See Appendices Ⅱ B-1 to B-6).

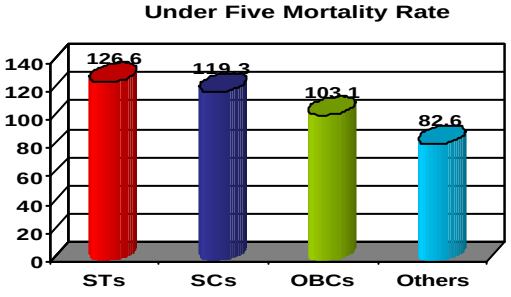






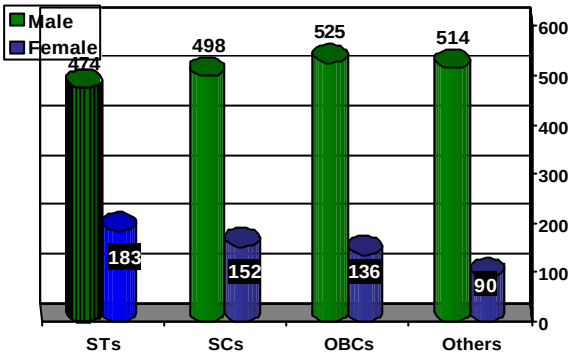




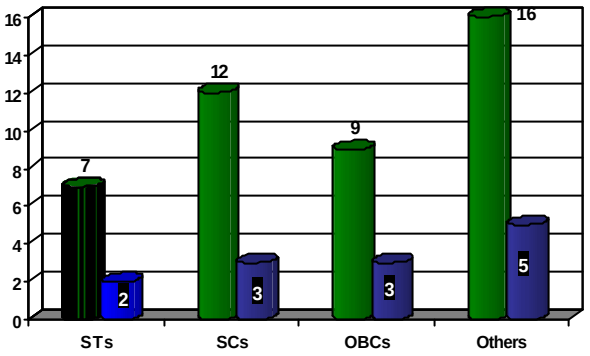


1.3.3 On the one hand, open unemployment is measured by the **usual principal status** (UPS) and is more or less consistently higher among OBCs than among 'Others'. On the other hand, unemployment, including underemployment, as measured by the current daily status (CDS) among OBCs is the lowest among all social groups in rural areas and not significantly less than the STs but less than 'Others' in Urban areas. There are, however, States in which OBC unemployment is significantly higher than that of 'Others', notably Kerala, Karnataka and Tamil Nadu. (See Appendices II C-I to C-8).

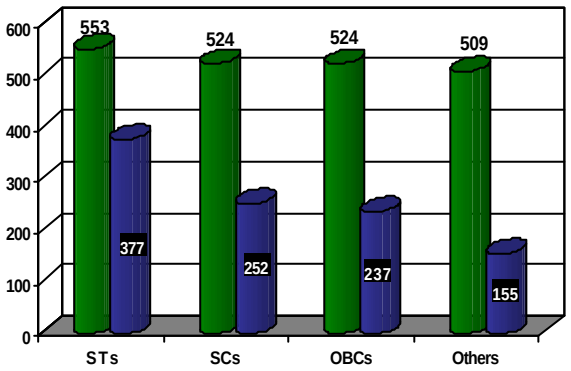
No of workers/1000 persons according to the usual principal status - Urban



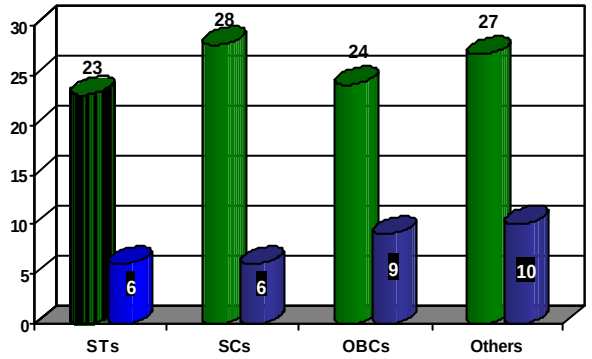
No of persons unemployed /1000 according to the usual principal status - Rural



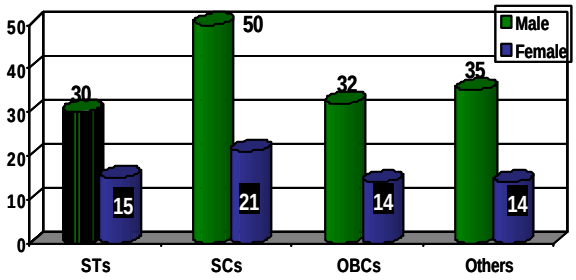
No of workers/1000 persons according to the usual principal status - Rural



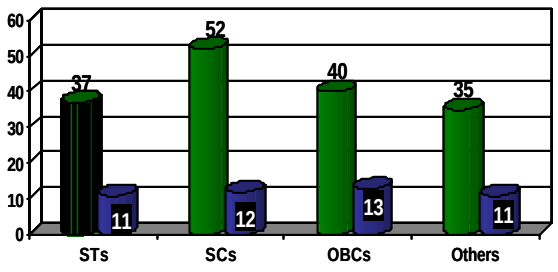
No of persons unemployed /1000 according to the usual principal status - Urban



No of Persons Unemployed /1000 according to Current Daily Status - Rural

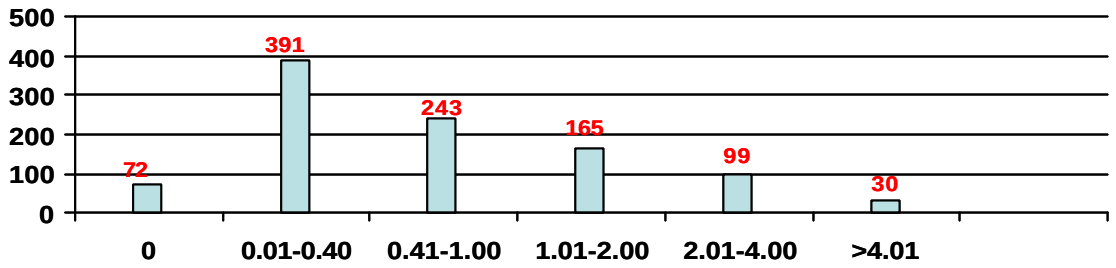


No of Persons Unemployed /1000 according to Current Daily Status - Urban

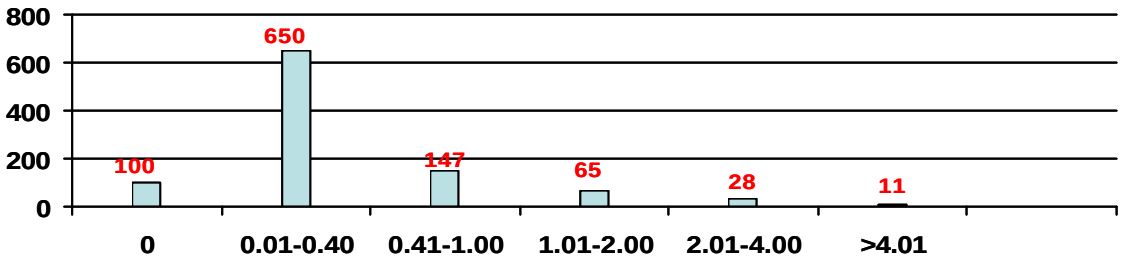


1.3.4 Land ownership among OBCs is vastly higher than among SCs (STs tend to have relatively high ownership patterns), and not significantly different from 'Others'. (See Appendices II D-I to D-4).

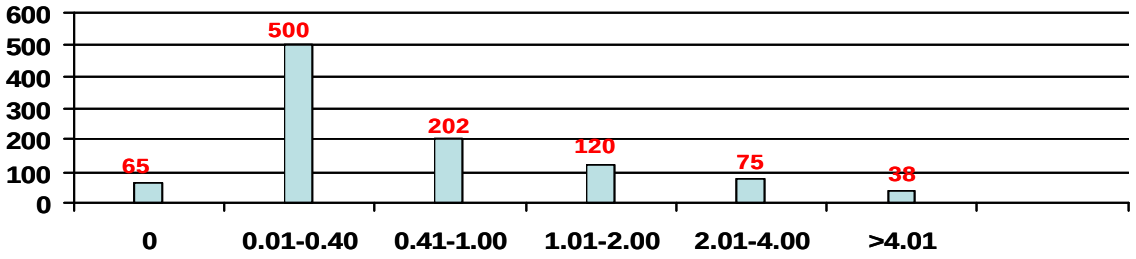
Per 1000 distribution of households by size class of land possessed by ST (land possessed in hectare)



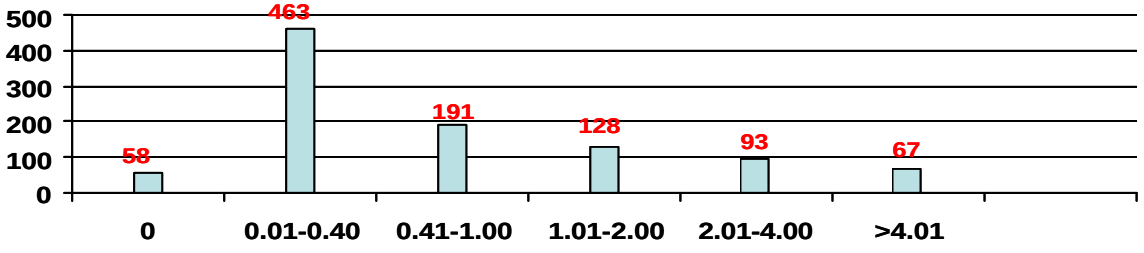
Per 1000 distribution of households by size class of land possessed by SC (land possessed in hectare)



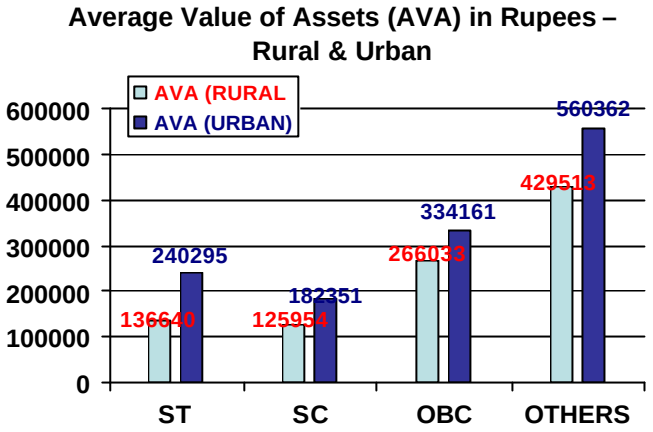
Per 1000 distribution of households by size class of land possessed by OBC (land possessed in hectare)



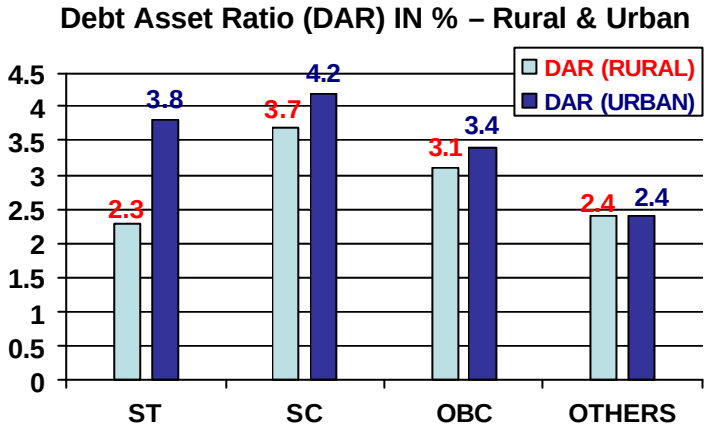
Per 1000 distribution of households by size class of land possessed by Others (land possessed in hectare)



1.3.5 Asset ownership (including land) per household of OBCs is double that of SCs and STs, but only about two-thirds of 'Others' in both rural and urban areas. (See Appendix II E-I).



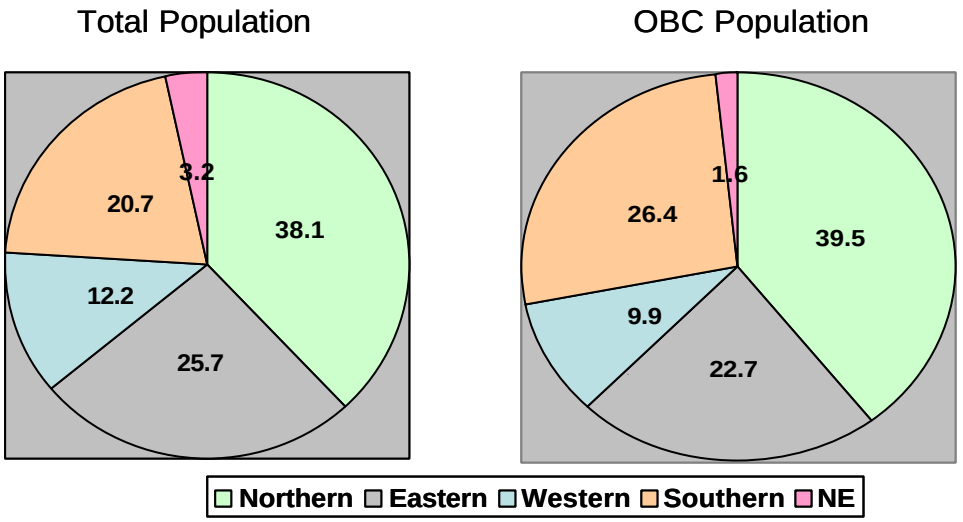
1.3.6. However, the incidence of indebtedness, and consequently the debt-to-asset ratio, is **highest** among OBCs of all social groups. It also appears that OBCs borrow a lower proportion of their debt from institutional sources and have higher dependence on informal sources as compared to all the other social groups. (See Appendix II E-I).



1.4 Indicators relevant to reservation for OBCs

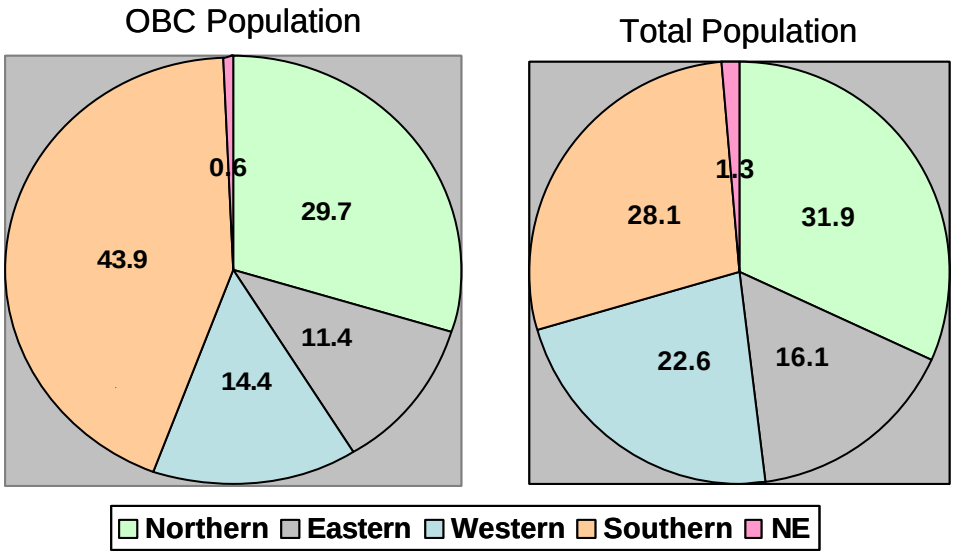
1.4.1 The Southern region has a significantly higher share of the OBC population in the country than its over-all population share. This is particularly true of Tamil Nadu (22.4% of the country's' OBC population). In the Northern region, the shares are more or less balanced; whereas in the East and the West, their share of OBC population is significantly lower than their overall population share. (See Appendix II – F).

Share of OBC in Rural Population – Region wise



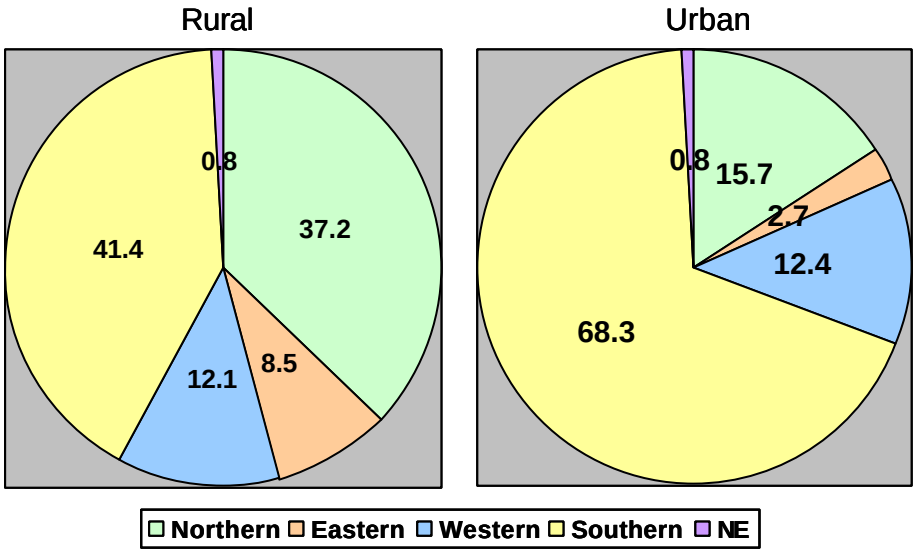
1.4.2 There is evidence to buttress the hypothesis that the ability to access reservations in Central institutions of higher learning will be higher among: (a) the urban population; and (b) the higher income classes. The four southern states collectively account for 44% of the total urban OBC population. Of this, more than 22% is in Tamil Nadu alone. Another four states, namely Madhya Pradesh, Uttar Pradesh, Bihar and Maharashtra, account for another 40%. Thus the remaining seven major states, namely Haryana, Punjab, Rajasthan, Orissa, West Bengal, Gujarat and Assam, collectively have only 16% of the urban OBC population. See Appendix – II G).

Share of OBC in Urban Population – Region wise



1.4.3 If we now consider the state-wise distribution of OBCs in the top two income classes in urban areas, i.e. those who stand the best chance of accessing the reservations, more than 68% are in the Southern region, with Tamil Nadu alone accounting for 37%. In fact, just 5 states, the 4 southern states plus Maharashtra, together account for nearly 80% of OBCs in this category (See Appendix – II H).

Share of States in top two classes within OBCs – Region wise



1.4.4 It is, however, recognized that going in for higher education may be influenced by factors other than location and income alone. In order to examine the 'behaviour' in this regard, the rate at which high school degrees are 'converted' to graduate degrees among different social groups in each state has been worked out. This 'Conversion Rate' is measured as the ratio of persons acquiring a graduate or higher degree to all persons who have passed out of high school for the age group of 18+. The essence of the tables at Appendices II – J-1 to J4 can be summarized as follows: -

Rate of Conversion of High School Certificates to Graduate Degrees

	ST	SC	OBC	Others
(a) Rural	35.29	34.54	36.07	44.14
(b) Urban	53.84	41.21	47.20	60.17
(c) Rural & Urban	42.75	37.44	41.25	54.91

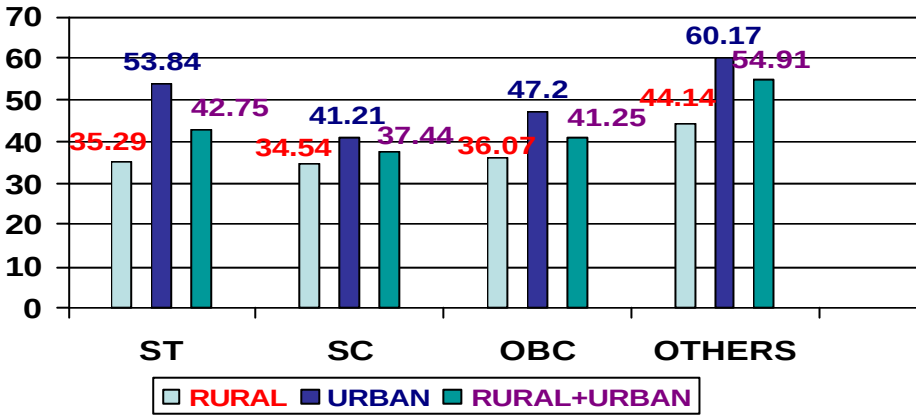
(a) In rural areas, there is no significant difference in the conversion rates between SCs and STs, who have had reservations for many years, and

the OBCs. 'Others' have higher conversion rates, but not unusually so in view of their generally better economic position.

(b) Only in four states – Rajasthan, Gujarat, Madhya Pradesh and Maharashtra – is the gap in conversion rates between OBCs and Others unusually high (>20%). On the other hand, in the southern states, the conversion rates for OBCs are much closer to 'Others'.

(c) In urban areas, however, STs show a much higher conversion rate than either SCs or OBCs. In addition, the gap between OBCs and Others is also significantly high with conversion rates for OBCs much lower. This gap is most glaring in Gujarat and Maharashtra, and is also very significant in Tamil Nadu, Karnataka and Kerala.

Rate of conversion of High school certificates to Graduate degrees



1.5 The **real problem appears to be at the high school level**, especially in rural areas. The proportion of 'high school pass' among OBCs even in the top two income classes in rural areas is only about 15% as compared to around 20% for 'Others'. In urban areas, matters are much better for OBCs except in a few states – Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu and Uttar Pradesh.

APPENDIX -II- A

Poverty Ratios among SCs, STs, OBCs and Others (1999-2000)

Name of the State	Rural				Urban			
	SCs	STs	OBCs	Others	SCs	STs	OBCs	Others
ANDHRA PRADESH	16.5	23.8	10.4	4.1	41.4	45.0	30.8	17.6
ASSAM	44.0	38.7	39.4	40.0	20.0	2.7	17.3	4.1
BIHAR COMBINED	59.8	59.7	42.9	26.5	51.9	39.5	39.4	16.4
GUJARAT	17.8	29.1	11.7	4.8	29.1	36.7	24.7	7.1
HARYANA	19.0	-	11.9	1.2	25.4	-	6.7	4.5
KARNATAKA	26.2	25.5	16.1	11.8	47.0	51.4	27.9	17.2
KERALA	14.6	24.2	10.8	5.4	24.2	-	23.4	14.5
MADHYA PRADESH COMBINED	41.3	56.3	32.5	12.2	54.2	52.6	47.6	23.2
MAHARASHTRA	33.3	43.6	22.2	13.6	39.9	43.0	32.9	21.7
ORISSA	51.8	73.9	39.5	23.4	70.6	59.6	41.1	30.6
PUNJAB	12.4	18.0	7.4	0.7	11.3	13.0	9.4	2.1
RAJASTHAN	19.6	25.3	10.2	6.3	41.8	20.7	21.0	11.1
TAMIL NADU	32.6	43.2	15.0	11.8	44.9	5.2	21.9	8.0
UTTAR PRADESH COMBINED	43.7	34.1	33.1	17.7	43.5	13.3	37.0	23.7
WEST BENGAL	35.1	50.0	20.4	29.7	28.2	31.9	20.8	10.7
All-Inda	36.3	45.9	27.1	15.2	38.5	34.8	29.5	15.4

Source : Planning Commission Estimates of Poverty-line computed with Consumption Expenditure

(1)

APPENDIX -II-B-1

States	Total Fertility Rate				Total
	Caste				
	SC	ST	OBC	Others	
India	3.15	3.06	2.83	2.66	2.85
Andhra Pradesh	2.51	2.75	2.26	2.00	2.25
Arunachal					2.52
Assam	2.57	2.10	1.54	2.35	2.31
Bihar	3.91	2.45	3.64	3.13	3.5
Chhattisgarh	2.86	2.88	2.89	1.88	2.79
Delhi	3.01		2.77	2.12	2.40
Goa	2.31		2.40	1.72	1.77
Gujarat	3.02	2.95	2.77	2.45	2.72
Haryana	3.70		3.06	2.49	2.88
Himachal Pradesh	2.15		2.37	2.05	2.14
J & K	3.18	3.62	3.36	2.51	2.7
Jharkhand	2.86	2.30	3.05	2.62	2.76
Karnataka	2.49	2.38	1.85	2.24	2.1
Kerala	1.52		1.90	1.85	1.96
Madhya Pradesh	3.87	3.69	3.34	2.49	3.31
Maharashtra	2.42	2.93	2.19	2.59	2.52
Manipur					3.04
Meghalaya					4.57
Mizoram					2.89
Nagaland					3.77
Orissa	2.85	2.66	2.47	2.07	2.46
Punjab	2.93		2.55	1.79	2.2
Rajasthan	4.34	4.31	3.80	3.44	3.78
Sikkim	3.42	2.66	2.83	2.69	2.75
Tamil Nadu	2.25	2.39	2.18	1.69	2.19
Tripura					1.87
Uttar Pradesh	4.44	4.83	4.12	3.77	3.99
Uttaranchal	3.08	4.18	1.83	2.42	2.60
West Bengal	2.34	2.31	1.89	2.21	2.29

Source : National Family Health Survey (NFHS) 1998-99

(2)

Neo-natal, Infant and Child Mortality Rate

States	Infant					Neonatal					Child					Under five				Total
	SC	ST	OBC	Others	Total	SC	ST	OBC	Others	Total	SC	ST	OBC	Others	Total	SC	ST	OBC	Others	
India	83	84.2	76	61.8	67.6	53.2	53.3	50.8	40.7	43.4	39.5	46.3	29.3	22.2	29.3	119.3	126.6	103.1	82.6	94.9
Andhra Pradesh	95.4	103.6	69.7	47.1	65.8	69.4	57.7	42.9	35.7	43.8	29.8	13.8	21.3	18.5	21.0	122.4	115.9	89.5	64.7	85.5
Arunachal Pradesh					63.1					41.8					37.4					98.1
Assam	44.8	59.3	46.7	68.2	69.5	32.7	32.8	34.3	40.5	44.6	12.0	15.1	26.9	20.1	21.4	56.3	73.5	72.4	86.9	89.5
Bihar	86.3	81.9	75.3	61.2	72.9	52.8	56.3	51.0	37.2	46.5	52.0	37.8	34.1	29.9	34.7	133.8	116.6	106.8	89.3	105.1
Chhattisgarh	Breakup not available				80.9					54.7					45.4					
Delhi	73.8		49.9	34.4	46.8	49.6		27.0	20.1	29.5	22.5		13.2	8.0	9.0	94.7		62.4	42.1	55.4
Goa	Break-up not available				36.7					31.2					10.5					46.8
Gujarat	80.1	60.3	74.2	53.7	62.6	49.1	31.1	51.7	39.2	39.6	46.6	36.5	23.6	17.5	24.0	123.0	94.6	96.0	70.3	85.1
Haryana	67.5		55.3	56.5	56.8	36.8		30.3	34.3	34.9	26.4		20.5	19.4	21.2	92.1		74.7	74.8	76.8
Himachal Pr.	43.7		38.0	39.1	34.4	33.2		26.1	21.5	22.1	14.8		9.6	6.8	8.3	57.9		47.2	45.6	42.4
J & K	44.3		85.7	62.3	65.0	21.5		43.3	39.9	40.3	19.4		24.1	15.4	16.1	62.8		107.7	76.7	80.1
Jharkhand	Breakup not available				54.3					36.6					25.4					
Karnataka	69.9	85.0	60.6	56.4	51.5	46.9	63.2	44.7	39.6	37.1	37.4	38.9	18.7	14.2	19.3	104.6	120.6	78.2	69.8	69.8
Kerala			17.3	20.5	16.3			9.6	17.6	13.8			7.3	3.5	2.6			24.5	23.9	18.8
Madhya Pradesh	101.5	101.0	92.3	72.4	86.1	68.2	69.4	58.0	42.2	54.9	60.7	87.4	52.3	24.1	56.4	156.0	179.6	139.8	94.8	137.6
Maharashtra	52.6	73.6	52.8	48.9	43.7	40.2	49.8	40.0	34.3	32.0	14.2	20.2	17.3	17.9	15.0	65.1	92.3	69.2	65.9	58.1
Manipur					37					18.6					19.9					56.1
Meghalaya					89.0					50.7					36.2					122.0
Mizoram					37					18.8					18.4					54.7
Nagaland					42.1					20.1					22.7					63.8
Orissa	83.9	98.7	95.6	79.1	81.0	48.9	56.1	71.0	43.1	48.6	42.4	44.0	20.1	15.0	25.5	122.7	138.4	113.8	92.9	104.4
Punjab	73.7		57.6	44.3	57.1	44.9		34.6	30.2	34.3	22.5		15.8	7.4	15.9	94.6		72.5	51.4	72.1
Rajasthan	98.9	94.7	87.5	81.6	80.4	60.3	58.0	54.7	49.9	49.5	46.4	66.6	39.1	30.1	37.6	140.7	155.0	123.2	109.3	114.9
Sikkim					43.9					26.3					28.4					71.0
Tamil Nadu	41.8		52.7		48.2	29.2		37.1		34.8	22.5		10.9		15.9	63.3		63.0		63.3
Tripura					44.2					28.6					7.4					NA
Uttar Pradesh	110.0	83.3	105.7	82.3	86.7	69.7	51.1	71.0	54.1	53.6	54.1	45.0	40.8	32.5	39.2	158.1	124.5	142.2	112.1	122.5
Uttaranchal	Breakup not available				37.6					25.7					19.2					
West Bengal	55.4	85.1		45.0	48.7	31.7	58.3		31.8	31.9	27.6		16.4	19.3	19.9	81.5		100.1	63.4	67.6

Source : National Family Health Survey (NFHS) 1998-99

APPENDIX -II-B-6

Institutional Delivery					
	Caste/Tribe				Total
India & State/UTs	SC	ST	OBC	Others	
India	26.8	17.1	36.1	40.1	33.6
Andhra Pradesh	37.6	22.3	49.5	65.7	50.0
Arunachal Pradesh	Breakup not available				31.2
Assam	21.4	16.1	35.2	15.1	17.6
Bihar	8.1	5.3	13.7	29.0	14.6
Chhatisgarh	13.8	7.2	14.5		13.8
Delhi	40.4		44.5	71.0	59.1
Goa	83.1			91.6	90.9
Gujarat	42.3	28.8	48.1	56.2	46.3
Haryana	9.7		20.4	29.8	22.4
Himachal Pradesh	26.2		20.1	33.4	29.0
Jammu & Kashmir	19.5	19.2	27.2	40.8	35.7
Jharkhand	12.0	4.6	15.2		13.9
Karnataka	39.2	31.0	54.6	57.8	51.1
Kerala	92.1		92.5	94.3	93.0
Madhya Pradesh	16.1	7.3	21.9	38.4	20.4
Maharashtra	58.8	32.2	55.6	54.7	52.6
Manipur					34.5
Meghalaya					17.3
Mizoram					57.6
Nagaland					12.1
Orissa	14.3	7.7	26.6	39.7	22.9
Punjab	21.8		32.8	52.6	37.5
Rajasthan	14.2	15.8	18.9	27.9	21.7
Sikkim	32.6	22.3	26.8	43.9	31.5
Tamil Nadu	68.7		82.8	98.3	79.3
Tripura					45.2
Uttar Pradesh	10.2	8.8	12.8	21.0	15.7
Uttaranchal	11.0	10.6			29.6
West Bengal	43.5	20.2	54.4	40.2	40.1

Source : National Family Health Survey (NFHS) 1998-99

(4)

APPENDIX -II- C-1

Table 9.1R: Number of workers per 1000 persons according to the usual principal status for each state/u.t.

RURAL

State/u.t.	ST		SC		OBC		OTHER	
	male	female	male	female	male	female	male	female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	604	522	597	511	597	459	600	328
Arunachal Pradesh	323	269	869	0	506	288	496	260
Assam	500	76	533	109	525	131	495	74
Bihar	575	271	522	197	477	109	448	71
Goa	495	9	524	14	531	294	554	142
Gujarat	592	398	548	349	583	258	563	273
Haryana	397	161	506	40	454	32	466	23
Himachal Pradesh	501	281	512	267	507	391	498	267
Jammu & Kashmir	588	36	593	20	555	32	521	57
Karnataka	637	422	569	408	608	342	589	321
Kerala	687	332	567	271	502	135	535	141
Madhya Pradesh	556	430	516	323	528	307	506	163
Maharashtra	526	457	504	399	516	424	535	333
Manipur	498	181	521	226	432	145	511	106
Meghalaya	565	425	1000	0	270	206	467	314
Mizoram	530	357	250	0	499	153	357	67
Nagaland	513	260	819	222	501	76	718	130
Orissa	574	350	521	219	550	151	500	75
Punjab	504	35	514	40	473	30	555	33
Rajasthan	523	389	497	219	492	288	479	183
Sikkim	481	200	519	282	526	243	496	237
Tamil Nadu	646	514	561	437	604	381	567	179
Tripura	465	97	504	56	528	75	489	56
Uttar Pradesh	450	185	476	162	476	123	455	83
West Bengal	516	298	543	125	536	95	517	90
A & N Islands	594	291	639	179	395	159	520	128
Chandigarh	-	-	447	48	622	0	733	126
Dadra & N. Haveli	528	390	790	0	539	74	797	155
Daman & Diu	591	350	583	77	694	29	701	220
Delhi	639	0	487	67	630	11	443	9
Lakshadweep	481	82	-	-	1000	0	609	0
Pondicherry	542	0	534	436	585	189	792	84
all-India	**553**	**377**	**524**	**252**	**524**	**237**	**509**	**155**

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APPENDIX -II-C-2

Table 9.1U: Number of workers per 1000 persons according to the usual principal status for each state/u.t.

State/u.t.	ST		SC		OBC		URBAN OTHER	
	male	female	male	female	male	female	male	female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	551	216	462	191	542	221	496	89
Arunachal Pradesh	302	118	606	71	309	159	455	67
Assam	468	153	453	63	526	83	530	108
Bihar	367	122	466	137	425	53	434	53
Goa	612	627	479	21	603	287	512	103
Gujarat	580	313	506	171	532	128	541	76
Haryana	55	0	482	61	550	63	507	56
Himachal Pradesh	374	0	544	100	529	165	497	96
Jammu & Kashmir	660	0	529	122	564	58	460	37
Karnataka	529	237	534	233	561	176	540	142
Kerala	548	437	550	264	528	157	532	141
Madhya Pradesh	440	174	478	175	489	134	491	81
Maharashtra	510	158	480	173	532	129	533	110
Manipur	422	119	520	91	429	162	466	134
Meghalaya	364	231	513	73	421	0	580	87
Mizoram	451	242	603	77	706	123	406	7
Nagaland	354	152	471	182	662	284	664	109
Orissa	467	202	543	255	476	80	445	56
Punjab	567	129	513	55	548	58	563	77
Rajasthan	487	79	459	134	500	98	478	71
Sikkim	436	258	561	182	501	216	566	150
Tamil Nadu	477	272	517	257	580	198	521	152
Tripura	429	114	470	40	552	63	491	75
Uttar Pradesh	401	96	491	99	497	57	477	60
West Bengal	531	191	565	137	591	108	556	87
A & N Islands	646	127	1000	0	500	41	611	168
Chandigarh	499	52	504	95	587	60	543	129
Dadra & N. Haveli	644	388	739	80	866	93	617	49
Daman & Diu	398	423	435	235	506	107	578	160
Delhi	544	107	522	56	511	43	531	91
Lakshadweep	393	104	1000	0	817	0	925	0
Pondicherry	601	228	609	267	543	149	502	126
all-India	**474**	**183**	**498**	**152**	**525**	**136**	**514**	**90**

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APPENDIX -II- C-3

Table 11.1R: Number of persons unemployed per 1000 persons according to the usual principal status for each state/u.t.

RURAL

State/u.t.	ST		SC		OBC		OTHER	
	male	female	male	female	male	female	male	female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	2	2	6	3	6	2	14	4
Arunachal Pradesh	5	1	0	0	0	0	0	0
Assam	28	5	20	7	32	13	25	15
Bihar	10	4	10	0	9	1	19	1
Goa	20	20	14	169	11	0	31	21
Gujarat	0	2	7	0	2	0	11	0
Haryana	0	0	5	0	4	0	9	0
Himachal Pradesh	13	13	13	4	15	13	21	5
Jammu & Kashmir	0	0	3	2	36	1	12	4
Karnataka	0	2	17	1	5	1	4	2
Kerala	52	33	48	45	47	37	46	49
Madhya Pradesh	4	0	2	0	4	1	9	2
Maharashtra	7	3	11	4	8	3	20	6
Manipur	9	6	0	0	16	1	5	0
Meghalaya	2	2	0	0	0	0	0	0
Mizoram	11	1	0	0	0	0	0	0
Nagaland	16	7	0	0	0	0	0	80
Orissa	9	0	14	3	20	6	26	6
Punjab	52	26	18	1	18	5	9	3
Rajasthan	3	0	6	1	4	0	5	1
Sikkim	27	2	11	0	15	3	17	12
Tamil Nadu	20	18	23	1	14	5	14	16
Tripura	0	0	3	5	10	3	5	3
Uttar Pradesh	18	0	4	1	4	1	10	1
West Bengal	10	4	23	6	35	1	18	4
A & N Islands	1	1	0	0	0	0	24	16
Chandigarh	-	-	37	3	7	0	2	0
Dadra & N. Haveli	7	0	0	0	0	0	0	0
Daman & Diu	0	0	0	0	35	0	18	0
Delhi	19	0	49	0	4	6	29	5
Lakshadweep	63	79	-	-	0	0	0	500
Pondicherry	0	0	44	10	31	7	15	0
all-India	7	2	12	3	9	3	16	5

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APPENDIX -II- C-4

Table 11.1U: Number of persons unemployed per 1000 persons according to the usual principal status for each state/u.t.

State/u.t.	URBAN							
	ST		SC		OBC		OTHER	
	male	female	male	female	male	female	male	female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	17	0	22	10	21	6	28	8
Arunachal Pradesh	9	17	0	0	0	0	7	13
Assam	7	0	55	19	36	12	52	30
Bihar	52	16	34	2	32	4	40	6
Goa	0	0	19	48	40	20	87	55
Gujarat	28	0	12	0	8	7	13	2
Haryana	0	0	18	0	14	3	15	3
Himachal Pradesh	0	0	36	9	16	12	33	21
Jammu & Kashmir	0	0	29	2	2	0	25	7
Karnataka	12	11	19	6	23	4	16	9
Kerala	4	53	40	80	44	58	34	50
Madhya Pradesh	18	2	18	1	22	3	27	1
Maharashtra	19	9	49	12	37	6	29	11
Manipur	3	0	39	61	48	25	14	9
Meghalaya	16	11	15	39	87	0	9	15
Mizoram	19	8	77	18	0	0	0	39
Nagaland	51	19	0	0	0	0	0	0
Orissa	33	4	10	5	24	10	55	8
Punjab	37	0	17	2	34	3	14	4
Rajasthan	11	0	8	2	6	1	21	8
Sikkim	32	19	59	43	53	8	26	32
Tamil Nadu	28	0	36	8	21	13	19	11
Tripura	73	0	12	1	24	7	28	8
Uttar Pradesh	22	0	22	0	21	1	24	5
West Bengal	36	26	52	4	41	12	48	15
A & N Islands	67	48	0	333	0	0	27	53
Chandigarh	0	0	23	20	40	24	27	19
Dadra & N. Haveli	12	0	0	0	0	0	9	0
Daman & Diu	0	0	0	0	48	5	2	26
Delhi	0	0	29	6	9	1	16	7
Lakshadweep	43	41	0	0	0	0	6	40
Pondicherry	57	0	24	19	20	16	40	1
all-India	**23**	**6**	**28**	**6**	**24**	**9**	**27**	**10**

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APPENDIX -II- C-5

Table 11.4U: Number of persons unemployed per 1000 persons according to the current daily status for each state/u.t.

URBAN

State/u.t.	ST		SC		OBC		OTHER	
	male	female	male	female	male	female	male	female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	34	20	45	17	46	14	39	13
Arunachal Pradesh	9	14	0	0	0	0	9	2
Assam	30	0	63	19	34	18	49	30
Bihar	65	18	49	9	36	11	42	8
Goa	0	0	81	48	40	215	122	63
Gujarat	47	6	34	13	14	8	20	3
Haryana	0	0	45	12	18	3	21	3
Himachal Pradesh	0	0	59	9	22	19	34	19
Jammu & Kashmir	0	0	52	9	10	0	31	7
Karnataka	24	11	39	11	42	7	25	10
Kerala	64	79	140	87	84	55	77	47
Madhya Pradesh	33	5	54	17	37	7	34	2
Maharashtra	38	18	64	15	48	11	36	12
Manipur	5	0	39	0	38	19	12	8
Meghalaya	16	11	15	39	87	0	9	15
Mizoram	16	8	77	18	0	0	0	39
Nagaland	51	21	2	0	0	0	18	0
Orissa	37	4	42	8	39	11	56	8
Punjab	37	0	29	2	47	5	21	8
Rajasthan	11	3	29	0	13	2	24	7
Sikkim	33	19	59	49	56	8	27	36
Tamil Nadu	78	10	102	32	45	17	34	12
Tripura	68	0	15	1	29	10	27	10
Uttar Pradesh	22	0	37	2	33	2	29	6
West Bengal	69	36	76	6	55	26	59	18
A & N Islands	67	109	0	333	0	0	38	49
Chandigarh	0	0	42	25	34	86	29	34
Dadra & N. Haveli	54	0	0	0	0	0	9	0
Daman & Diu	0	0	0	0	50	5	1	20
Delhi	14	0	41	3	14	1	20	7
Lakshadweep	60	40	0	0	0	0	6	40
Pondicherry	57	40	108	26	74	19	87	7
all-India	**37**	**11**	**52**	**12**	**40**	**13**	**35**	**11**

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Table 11.4R: Number of persons unemployed per 1000 persons according to the current daily status for each state/u.t.

State/u.t.	ST		SC		OBC		RURAL OTHER	
	male	female	male	female	male	female	male	female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	30	45	72	51	39	28	42	17
Arunachal Pradesh	5	0	0	0	25	0	1	0
Assam	32	5	25	7	43	20	32	15
Bihar	58	15	50	18	27	5	37	4
Goa	0	20	14	169	11	0	41	29
Gujarat	36	15	54	23	26	11	20	5
Haryana	120	0	61	4	20	0	10	2
Himachal Pradesh	16	9	20	4	30	4	17	2
Jammu & Kashmir	7	0	28	2	52	1	22	3
Karnataka	17	26	49	21	22	10	15	9
Kerala	96	58	149	90	107	43	87	49
Madhya Pradesh	15	6	28	14	21	11	15	5
Maharashtra	28	25	51	38	29	23	32	20
Manipur	9	6	0	0	10	4	5	0
Meghalaya	3	3	0	0	0	0	0	0
Mizoram	9	1	0	0	0	0	0	0
Nagaland	14	7	0	0	2	0	0	80
Orissa	35	10	41	11	48	15	44	10
Punjab	36	26	38	2	22	7	12	3
Rajasthan	10	0	25	9	14	8	15	3
Sikkim	26	2	11	0	15	4	12	12
Tamil Nadu	111	46	109	55	68	34	27	20
Tripura	0	0	5	9	12	3	9	3
Uttar Pradesh	22	0	28	8	14	1	16	1
West Bengal	89	46	63	12	63	4	84	37
A & N Islands	0	1	18	0	0	0	27	15
Chandigarh	-	-	33	0	53	0	4	6
Dadra & N. Haveli	6	0	0	0	0	0	0	0
Daman & Diu	2	5	0	0	35	0	18	0
Delhi	19	0	59	0	5	6	29	5
Lakshadweep	71	79	-	-	126	0	31	500
Pondicherry	0	0	215	144	123	40	37	0
All-India	30	15	50	21	32	14	35	14

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APPENDIX -II- D-1

Table 4.1R: Per 1000 distribution of households by size class of land possessed

RURAL SCHEDULED TRIBE

State/u.t.	land possessed (0.00 Hectare)					
	0.00	0.01 - 0.40	0.41– 1.00	1.01 - 2.00	2.01 - 4.00	4.01 & above
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	36	414	243	177	103	26
Arunachal Pradesh	14	239	190	261	168	127
Assam	7	270	278	297	123	25
Bihar	20	355	3`20	235	55	15
Goa	0	966	34	0	0	0
Gujarat	85	515	195	124	69	12
Haryana	236	461	132	98	50	22
Himachal Pradesh	105	501	293	92	6	2
Jammu & Kashmir	69	435	434	62	0	0
Karnataka	48	487	238	129	67	31
Kerala	42	648	235	52	16	8
Madhya Pradesh	70	284	251	185	159	50
Maharashtra	220	369	141	117	122	31
Manipur	15	295	402	229	59	0
Meghalaya	58	200	333	256	142	11
Mizoram	0	217	416	279	88	0
Nagaland	8	102	131	260	384	116
Orissa	5	503	269	157	57	10
Punjab	235	697	62	0	7	0
Rajasthan	10	352	343	159	92	45
Sikkim	312	130	195	209	112	42
Tamil Nadu	111	523	259	63	42	2
Tripura	0	655	253	79	12	0
Uttar Pradesh	44	490	223	135	37	71
West Bengal	70	642	172	93	19	5
A & N Islands	181	459	200	113	47	0
Chandigarh	-	-	-	-	-	-
Dadra & N. Haveli	7	381	423	172	14	2
Daman & Diu	40	905	39	16	0	0
Delhi	807	165	29	0	0	0
Lakshadweep	24	960	15	0	0	0
Pondicherry	0	1000	0	0	0	0
all-India	**72**	**391**	**243**	**165**	**99**	**30**

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APPENDIX -II- D-2

Table 4.1R: Per 1000 distribution of households by size class of land possessed

RURAL SCHEDULED CASTE

State/u.t.	land possessed (0.00 Hectare)					
	0.00	0.01 –0.40	0.41 –1.00	1.01 –2.00	2.01 –4.00	4.01 & above
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	69	647	182	84	14	5
Arunachal Pradesh	75	925	0	0	0	0
Assam	25	561	228	154	24	8
Bihar	238	671	64	21	6	0
Goa	0	966	34	0	0	0
Gujarat	181	612	114	53	29	11
Haryana	57	861	49	16	11	6
Himachal Pradesh	9	684	240	52	14	0
Jammu & Kashmir	5	519	355	83	34	3
Karnataka	36	593	220	76	55	19
Kerala	42	896	37	24	0	0
Madhya Pradesh	137	339	219	161	104	41
Maharashtra	167	548	107	109	48	21
Manipur	0	247	242	299	180	32
Meghalaya	0	0	0	0	1000	0
Mizoram	0	1000	0	0	0	0
Nagaland	0	0	602	0	0	398
Orissa	14	671	241	44	22	9
Punjab	122	825	26	13	10	4
Rajasthan	30	373	210	169	114	105
Sikkim	233	519	184	50	14	0
Tamil Nadu	151	736	94	12	6	1
Tripura	2	753	196	40	10	0
Uttar Pradesh	53	665	186	74	19	2
West Bengal	60	762	124	37	16	1
A & N Islands	0	632	123	123	0	123
Chandigarh	723	263	0	14	0	0
Dadra & N. Haveli	0	619	254	126	0	0
Daman & Diu	0	750	250	0	0	0
Delhi	743	257	0	0	0	0
Lakshadweep	-	-	-	-	-	-
Pondicherry	7	972	21	0	0	0
all-India	**100**	**650**	**147**	**65**	**28**	**11**

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APPENDIX -II- D-3

Table 4.1R: Per 1000 distribution of households by size class of land possessed

RURAL

State/u.t.	OBC					
	land possessed (0.00 Hectare)					
	0.00	0.01 –0.40	0.41 –1.00	1.01 –2.00	2.01 –4.00	4.01 & above
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	52	540	224	97	67	20
Arunachal Pradesh	213	432	314	41	0	0
Assam	18	546	219	151	57	8
Bihar	88	580	195	95	35	7
Goa	668	320	12	0	0	0
Gujarat	119	484	132	123	82	60
Haryana	64	626	129	75	60	45
Himachal Pradesh	54	756	158	26	5	0
Jammu & Kashmir	0	432	433	104	30	3
Karnataka	20	414	211	179	123	52
Kerala	13	867	83	27	6	3
Madhya Pradesh	66	281	197	192	163	100
Maharashtra	123	358	159	148	134	78
Manipur	0	525	250	160	54	11
Meghalaya	0	617	383	0	0	0
Mizoram	0	114	775	0	111	0
Nagaland	0	669	220	107	4	0
Orissa	7	544	249	111	70	20
Punjab	145	576	128	60	67	23
Rajasthan	22	239	156	187	191	205
Sikkim	166	226	371	187	45	5
Tamil Nadu	85	613	178	73	35	16
Tripura	0	768	177	47	8	0
Uttar Pradesh	35	470	274	142	64	16
West Bengal	59	611	207	91	24	8
A & N Islands	135	525	180	0	161	0
Chandigarh	605	300	95	0	0	0
Dadra & N. Haveli	584	377	39	0	0	0
Daman & Diu	131	830	40	0	0	0
Delhi	842	117	15	16	0	11
Lakshadweep	0	1000	0	0	0	0
Pondicherry	24	874	40	50	4	9
all-India	65	500	202	120	75	38

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APPENDIX -II- D-4

Table 4.1R: Per 1000 distribution of households by size class of land possessed

RURAL

State/u.t.	land possessed (0.00 Hectare)					OTHER
	0.00	0.01 –0.40	0.41– 1.00	1.01 –2.00	2.01 –4.00	4.01 & above
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	67	474	141	123	115	80
Arunachal Pradesh	399	241	151	131	78	0
Assam	46	555	218	144	33	5
Bihar	60	492	230	126	61	31
Goa	114	806	65	14	0	1
Gujarat	62	377	129	156	132	144
Haryana	17	243	204	179	203	154
Himachal Pradesh	46	462	280	139	54	19
Jammu & Kashmir	11	335	379	212	62	1
Karnataka	52	359	168	148	159	115
Kerala	13	727	166	68	20	6
Madhya Pradesh	87	217	141	211	187	156
Maharashtra	113	374	181	139	118	75
Manipur	8	473	345	139	34	1
Meghalaya	125	315	232	309	5	14
Mizoram	0	152	419	429	0	0
Nagaland	0	820	0	0	180	0
Orissa	35	564	233	98	45	24
Punjab	52	272	163	170	187	156
Rajasthan	21	229	132	138	186	295
Sikkim	326	257	269	113	33	2
Tamil Nadu	102	647	136	59	37	18
Tripura	10	695	237	54	4	0
Uttar Pradesh	40	390	267	156	101	46
West Bengal	39	720	154	62	20	4
A & N Islands	89	503	112	151	103	41
Chandigarh	592	136	30	10	232	0
Dadra & N. Haveli	468	444	1	61	26	0
Daman & Diu	95	750	105	32	0	18
Delhi	739	200	21	37	1	3
Lakshadweep	0	1000	0	0	0	0
Pondicherry	0	755	146	0	53	46
all-India	**58**	**463**	**191**	**128**	**93**	**67**

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APPENDIX -II- E-1

3.4.1 Aggregate Magnitude of Cash Debt

3.4.1.1 *Rural Areas*: Statement 7, seen in conjunction with the percentage distribution of households by social group given in Statement 1, indicates that, in 2002, the social groups OBC and *Others* had relatively higher share in the total debt (TD) than their share among all rural households, while for the social groups SC or ST the picture was just the reverse. Rural households belonging to the social group OBC and *Others* together accounted for more than four fifth of the aggregate debt in the rural areas. The survey figures show that ST and SC households constituted, respectively, more than a tenth and more than a fifth of all rural households whereas they accounted for only 4% and 14%, respectively, of the TD in the rural areas.

Statement 7: Total amount of outstanding cash dues (TD), average debt (AOD) per household, average value of assets (AVA), debt asset ratio (DAR), incidence of indebtedness (IOI) as on 30.6.02 and sample size for each social group

all-India

Indicators	social group				Rural
	ST	SC	OBC	Others	all
(1)	(2)	(3)	(4)	(5)	(6)
TD (Rs. crores)	4834	15103	50356	41171	111468
% share of debt	4	14	45	37	100
AOD (Rs.)	3205	4641	8288	10437	7539
AVA (Rs.)	136640	125954	266033	429513	265606
DAR (%)	2.3	3.7	3.1	2.4	2.8
IOI (%)	17.9	27.1	28.9	25.7	26.5
no. of sample households	12625	18773	34715	25,036	91158

*Note: 1. DAR is derived as follows: DAR = (AOD/AVA) * 100.*
2. 'all social groups' includes households with n.r. cases of social group.

Statement 8: Total amount of outstanding cash dues (TD), average debt (AOD) per household, average value of assets (AVA), debt asset ratio (DAR), incidence of indebtedness (IOI) as on 30.6.02 and sample size for each social group

all-India

Indicators	social group				Urban
	ST	SC	OBC	Others	all
(1)	(2)	(3)	(4)	(5)	(6)
TD (Rs. crores)	1528	6270	21570	35959	65327
% share of debt	2	10	33	55	100
AOD (Rs.)	9233	7744	11200	13577	11771
AVA (Rs.)	240295	182351	334161	560362	417158
DAR (%)	3.8	4.2	3.4	2.4	2.8
IOI (%)	12.2	19.2	21.2	15.3	17.8
no. of sample households	3037	7586	18351	23045	52023

*Note: 1. DAR is derived as follows: DAR = (AOD/AVA) * 100.*
2. 'all social groups' includes households with n.r. cases of social group.

3.4.1.2 *Urban Areas*: Statement 8, again seen along with Statement 1, reveals that the rural pattern is repeated in the urban areas too. About 48% of the urban households belonging to the social group *Others* accounted for 55% of the TD in the urban areas, whereas 35%, 15% and 3% of the urban households belonging to the social groups OBC, SC and ST respectively, accounted for 33%,10% and 2%, respectively, of aggregate debt in the urban areas.

APPENDIX -II- F&G

Name of the State	Share iof Different States in			
	Rural		Urban	
	Popln.	OBC Populn.	Popln.	OBC Populn.
HARYANA	2.1	1.4	2.3	1.6
PUNJAB	2.2	0.9	3.1	1.3
RAJASTHAN	6.0	5.7	5.0	4.2
MADHYA PRADESH COMBINED	8.5	9.2	7.6	8.8
UTTAR PRADESH COMBINED	19.2	22.4	13.9	13.8
NORTHERN REGION	**38.1**	**39.5**	**31.9**	**29.7**
ORISSA	4.4	3.6	2.1	1.5
WEST BENGAL	8.1	1.4	8.5	1.7
BIHAR COMBINED	13.3	17.7	5.5	8.2
EASTERN REGION	**25.7**	**22.7**	**16.1**	**11.4**
GUJARAT	4.4	3.7	7.1	5.3
MAHARASHTRA	7.8	6.1	15.5	9.1
WESTERN REGION	**12.2**	**9.9**	**22.6**	**14.4**
ANDHRA PRADESH	7.7	9.1	7.9	9.4
KARNATAKA	4.9	4.9	6.8	6.6
KERALA	3.3	4.4	3.1	5.5
TAMIL NADU	4.9	8.0	10.4	22.4
SOUTHERN REGION	**20.7**	**26.4**	**28.1**	**43.9**
ASSAM	3.2	1.6	1.3	0.6
NORTH EASTERN REGION	**3.2**	**1.6**	**1.3**	**0.6**
MAJOR STATES	100.0	100.0	100.0	100.0

APPENDIX -II- H-1

Name of the State	2001		% persons in top 2 expenditure classes			No. persons in top 2 expenditure classes			Share of States in top two Classes within OBCs		
	OBC Rural Populn.	OBC Urban Populn.	R	U	R+U	R	U	R+U	R	U	R+U
HARYANA	3794888	1312956	25.4	3.1	7.3	963902	40702	1004603	4.3	1.0	3.7
PUNJAB	2361355	1104698	26.1	2.6	6.6	616314	28722	645036	2.7	0.7	2.4
RAJASTHAN	15710962	3522952	11.7	3.7	7.3	1838183	130349	1968532	8.1	3.1	7.3
MADHYA PRADESH COMBINED	25327008	7349760	5.6	2.6	4.6	1418312	191094	1609406	6.3	4.5	6.0
UTTAR PRADESH COMBINED	61809939	11478252	5.8	2.4	5.1	3584976	275478	3860455	15.8	6.5	14.4
NORTHERN REGION	109004151	24768617	7.7	2.7	6.4	8421687	666345	9088031	37.2	15.7	33.8
ORISSA	9871182	1258462	3.6	1.0	3.1	355363	12585	367947	1.6	0.3	1.4
WEST BENGAL	3909604	1377033	11.6	5.0	10.1	453514	68852	522366	2.0	1.6	1.9
BIHAR COMBINED	48977689	6863751	2.3	0.5	1.9	1126487	34319	1160806	5.0	0.8	4.3
EASTERN REGION	62768474	9499266	3.1	1.2	2.8	1935363	115765	2051119	8.5	2.7	7.6
GUJARAT	10318923	4439144	10.3	2.1	8.3	1062849	93222	1156071	4.7	2.2	4.3
MAHARASHTRA	16883894	7599571	9.9	5.7	8.4	1671505	433176	2104681	7.4	10.2	7.8
WESTERN REGION	27202817	12038715	10.1	4.4	8.4	2734355	526398	3260752	12.1	12.4	12.1
ANDHRA PRADESH	25135464	7874103	5.2	6.3	5.5	1307044	496068	1803113	5.8	11.7	6.7
KARNATAKA	13659056	5505209	10.3	7.9	9.6	1406883	434911	1841794	6.2	10.3	6.9
KERALA	12041829	4573263	31.1	9.0	26.1	3745009	411594	4156602	16.5	9.7	15.5
TAMIL NADU	22032089	18724848	13.2	8.3	11.2	2906236	1554162	4462398	12.8	36.7	16.6
SOUTHERN REGION	72868438	36677422	12.9	7.9	11.1	9367171	2896736	12263907	41.4	68.3	45.6
ASSAM	4332159	470832	4.4	7.0	4.6	190615	32958	223573	0.8	0.8	0.8
NORTH EASTERN REGION	4332159	470832	4.4	7.0	4.6	190615	32958	223573	0.8	0.8	0.8
MAJOR STATES	276166039	83454852	8.2	5.1	7.2	22649191	4238192	26887383	100.0	100.0	100.0

Note: The OBC population data have estimated, using the proportions of Census and the shares of OBCs as given by NSSO Report No 472 (Sept. 2001)

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APPENDIX -II- J-1

	Rural				Urban				Rural +Urban			
	Estd. STs Sr. Sec 18+ 1999-2000	Estd. STs Grad+ 18+ 1999-2000	Estd. STs Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate	Estd. STs Sr. Sec 18+ 1999-2000	Estd. STs Grad+ 18+ 1999-2000	Estd. STs Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate	Estd. STs Sr. Sec 18+ 1999-2000	Estd. STs Grad+ 18+ 1999-2000	Estd. STs Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate
-	(1)	(2)	(3) = (1)+(2)	(4) = (2)/(3)	(5)	(6)	(7) = (5)+(6)	(8) = (6)/(7)	(9)	(10)	(11) = (9)+(10)	(12) = (10)/(11)
HARYANA	484	0	484	0.00	9290	4135	13425	30.80	9774	4135	13909	29.73
PUNJAB	3149	1591	4740	33.57	1112	1445	2557	56.51	4261	3036	7297	41.61
RAJASTHAN	86911	30884	117795	26.22	18973	21259	40232	52.84	105884	52143	158027	33.00
MADHYA PRADESH COMBINED	148340	38401	186741	20.56	65318	40630	106948	37.99	214658	79031	293689	26.91
UTTAR PRADESH COMBINED	28399	33783	62182	54.33	25777	43157	68934	62.61	54176	76940	131116	58.68
NORTHERN REGION	267283	104659	371942	28.14	121470	110626	232096	47.66	388753	215285	604038	35.64
ORISSA	55425	32524	87949	36.98	9314	15834	25148	62.96	64739	48358	113097	42.76
WEST BENGAL	23915	15792	39707	39.77	5180	12501	17681	70.70	29095	28293	57388	49.30
BIHAR COMBINED	48477	44180	92657	47.68	30006	70207	100213	70.06	78483	114387	192870	59.31
EASTERN REGION	127817	92496	220313	41.98	44500	98542	143042	68.89	172317	191038	363355	52.58
GUJARAT	120790	62319	183109	34.03	15512	24246	39758	60.98	136302	86565	222867	38.84
MAHARASHTRA	91262	61478	152740	40.25	83857	66416	150273	44.20	175119	127894	303013	42.21
WESTERN REGION	212052	123797	335849	36.86	99369	90662	190031	47.71	311421	214459	525880	40.78
ANDHRA PRADESH	16428	12069	28497	42.35	27077	29878	56955	52.46	43505	41947	85452	49.09
KARNATAKA	29185	21210	50395	42.09	24452	18156	42608	42.61	53637	39366	93003	42.33
KERALA	9160	11040	20200	54.65	5873	3737	9610	38.89	15033	14777	29810	49.57
TAMIL NADU	12744	8503	21247	40.02	13883	39179	53062	73.84	26627	47682	74309	64.17
SOUTHERN REGION	67517	52822	120339	43.89	71285	90950	162235	56.06	138802	143772	282574	50.88
ASSAM	49574	21187	70761	29.94	10951	14686	25637	57.28	60525	35873	96398	37.21
NORTH EASTERN REGION	49574	21187	70761	29.94	10951	14686	25637	57.28	60525	35873	96398	37.21
Major States	724243	394961	1119204	35.29	347575	405466	753041	53.84	1071818	800427	1872245	42.75

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APPENDIX -II- J-2

	Rural				Urban				Rural +Urban		
	Estd. SCs Sr. Sec 18+ 1999-2000	Estd. SCs Grad+ 18+ 1999-2000	Estd. SCs Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate	Estd. SCs Sr. Sec 18+ 1999-2000	Estd. SCs Grad+ 18+ 1999-2000	Estd. SCs Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate	Estd. SCs Sr. Sec 18+ 1999-2000	Estd. SCs Grad+ 18+ 1999-2000	Estd. SCs Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate
	(1)	(2)	(3) = (1)+(2)	(4) = (2)/(3)	(5)	(6)	(7) = (5)+(6)	(8) = (6)/(7)	(9)	(10)	(11) = (9)+(10)	(12) = (10)/(11)
HARYANA	64490	14067	78557	17.91	9937	9419	19356	48.65	74427	23486	97913	23.99
PUNJAB	102229	25188	127417	19.77	61523	33927	95450	35.54	163752	59115	222867	26.52
RAJASTHAN	65329	28236	93565	30.18	54335	31800	86135	36.92	119664	60036	179700	33.41
MADHYA PRADESH COMBINED	129710	44583	174293	25.58	113645	55537	169182	32.83	243355	100120	343475	29.15
UTTAR PRADESH COMBINED	353010	221460	574470	38.55	168365	111983	280348	39.94	521375	333443	854818	39.01
NORTHERN REGION	714768	333534	1048302	31.82	407805	242666	650471	37.31	1122573	576200	1698773	33.92
ORISSA	76383	49975	126358	39.55	14369	3384	17753	19.06	90752	53359	144111	37.03
WEST BENGAL	134868	102617	237485	43.21	73363	100398	173761	57.78	208231	203015	411246	49.37
BIHAR COMBINED	78522	57790	136312	42.40	34693	31661	66354	47.72	113215	89451	202666	44.14
EASTERN REGION	289773	210382	500155	42.06	122425	135443	257868	52.52	412198	345825	758023	45.62
GUJARAT	32777	28085	60862	46.15	65683	37499	103182	36.34	98460	65584	164044	39.93
MAHARASHTRA	152560	91016	243576	37.37	187403	149894	337297	44.44	339963	240910	580873	41.47
WESTERN REGION	185337	119101	304438	39.12	253086	187393	440479	42.54	438423	306494	744917	41.14
ANDHRA PRADESH	84417	72366	156783	46.16	147319	115649	263168	44.02	231736	188215	419951	44.82
KARNATAKA	112562	33612	146174	22.99	69870	47482	117352	40.46	182432	81094	263526	30.77
KERALA	35007	9094	44101	20.62	34454	14169	48623	29.14	69461	23263	92724	25.09
TAMIL NADU	179893	77839	257732	30.20	103134	55742	158876	35.09	283027	133581	416608	32.06
SOUTHERN REGION	411879	192911	604790	31.90	354777	233242	588019	39.67	766656	426163	1192809	35.73
ASSAM	56834	19035	75869	25.09	10602	6472	17074	37.91	67436	25507	92943	27.44
NORTH EASTERN REGION	56834	19035	75869	25.09	10602	6472	17074	37.91	67436	25507	92943	27.44
Major States	1658591	874963	2533554	34.54	1148695	805216	1953911	41.21	2807286	1680179	4487465	37.44

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APPENDIX -II- J-3

	Rural				Urban				Rural+Urban		
	Estd. OBCs Sr. Sec 18+ 1999-2000	Estd. OBCs Grad+ 18+ 1999-2000	Estd. OBCs Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate	Estd. OBCs Sr. Sec 18+ 1999-2000	Estd. OBCs Grad+ 18+ 1999-2000	Estd. OBCs Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate	Estd. OBCs Sr. Sec 18+ 1999-2000	Estd. OBCs Grad+ 18+ 1999-2000	Estd. OBCs Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate
	(1)	(2)	(3) = (1)+(2)	(4) = (2)/(3)	(5)	(6)	(7) = (5)+(6)	(8) = (6)/(7)	(9)	(10)	(11) = (9)+(10)	(12) = (10)/(11)
HARYANA	81018	58036	139054	41.74	64769	49259	114028	43.20	145787	107295	253082	42.40
PUNJAB	67994	24775	92769	26.71	51493	35861	87354	41.05	119487	60636	180123	33.66
RAJASTHAN	207639	59524	267163	22.28	113655	119708	233363	51.30	321294	179232	500526	35.81
MADHYA PRADESH COMBINED	474431	174886	649317	26.93	384632	285247	669879	42.58	859063	460133	1319196	34.88
UTTAR PRADESH COMBINED	1156010	546504	1702514	32.10	315898	313822	629720	49.84	1471908	860326	2332234	36.89
NORTHERN REGION	1987092	863725	2850817	30.30	930447	803897	1734344	46.35	2917539	1667622	4585161	36.37
ORISSA	150415	115159	265574	43.36	46046	38079	84125	45.26	196461	153238	349699	43.82
WEST BENGAL	60778	104174	164952	63.15	45879	63172	109051	57.93	106657	167346	274003	61.07
BIHAR COMBINED	460190	371288	831478	44.65	193398	233330	426728	54.68	653588	604618	1258206	48.05
EASTERN REGION	671383	590621	1262004	46.80	285323	334581	619904	53.97	956706	925202	1881908	49.15
GUJARAT	137186	82530	219716	37.56	125120	65760	190880	34.45	262306	148290	410596	36.12
MAHARASHTRA	545898	255202	801100	31.86	363747	258903	622650	41.58	909645	514105	1423750	36.11
WESTERN REGION	683084	337732	1020816	33.08	488867	324663	813530	39.91	1171951	662395	1834346	36.11
ANDHRA PRADESH	296410	132628	429038	30.91	424932	478020	902952	52.94	721342	610648	1331990	45.84
KARNATAKA	215174	166193	381367	43.58	281419	235316	516735	45.54	496593	401509	898102	44.71
KERALA	277046	240454	517500	46.46	181410	150067	331477	45.27	458456	390521	848977	46.00
TAMIL NADU	687737	411861	1099598	37.46	940005	823035	1763040	46.68	1627742	1234896	2862638	43.14
SOUTHERN REGION	1476367	951136	2427503	39.18	1827766	1686438	3514204	47.99	3304133	2637574	5941707	44.39
ASSAM	118666	41535	160201	25.93	14956	21668	36624	59.16	133622	63203	196825	32.11
NORTH EASTERN REGION	118666	41535	160201	25.93	14956	21668	36624	59.16	133622	63203	196825	32.11
MAJOR STATES	4936592	2784749	7721341	36.07	3547359	3171247	6718606	47.20	8483951	5955996	14439947	41.25

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APPENDIX -II- J-4

	Rural				Urban				Rural +Urban		
	Estd.Others Sr. Sec 18+ 1999-2000	Estd.Others Grad+ 18+ 1999-2000	Estd.Others Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate	Estd.Others Sr. Sec 18+ 1999-2000	Estd.Others Grad+ 18+ 1999-2000	Estd.Others Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate	Estd.Others Sr. Sec 18+ 1999-2000	Estd.Others Grad+ 18+ 1999-2000	Estd.Others Sr. Sec & Grad+ 18+ 1999-2000	Conversion Rate
	(1)	(2)	(3) = (1)+(2)	(4) = (2)/(3)	(5)	(6)	(7) = (5)+(6)	(8) = (6)/(7)	(9)	(10)	(11) = (9)+(10)	(12) = (10)/11
HARYANA	253305	162119	415424	39.02	261194	345143	606337	56.92	514499	507262	1021761	49.65
PUNJAB	324287	121923	446210	27.32	383910	494713	878623	56.31	708197	616636	1324833	46.54
RAJASTHAN	236454	179156	415610	43.11	496345	688288	1184633	58.10	732799	867444	1600243	54.21
MADHYA PRADESH COMBINED	347223	211135	558358	37.81	769270	1137784	1907054	59.66	1116493	1348919	2465412	54.71
UTTAR PRADESH COMBINED	1727058	1175815	2902873	40.51	1611116	2195173	3806289	57.67	3338174	3370988	6709162	50.24
NORTHERN REGION	2888327	1850148	4738475	39.05	3521835	4861101	8382936	57.99	6410162	6711249	13121411	51.15
ORISSA	179165	208080	387245	53.73	174367	295221	469588	62.87	353532	503301	856833	58.74
WEST BENGAL	468303	514482	982785	52.35	881639	1554354	2445993	63.96	1349842	2078836	3428778	60.63
BIHAR COMBINED	489342	447159	936501	47.75	394687	685952	1080639	63.48	884029	1133111	2017140	56.17
EASTERN REGION	1136810	1169721	2306531	50.71	1450693	2545527	3996220	63.70	2587503	3715248	6302751	58.95
GUJARAT	408380	254191	662571	38.36	677293	1056797	1744090	61.17	1085673	1320988	2406661	54.89
MAHARASHTRA	541215	713407	1254623	56.86	1712014	2527516	4239530	59.62	2253230	3240923	5494153	58.99
WESTERN REGION	949595	967598	1917194	50.47	2389307	3594313	5983620	60.07	3338903	4561911	7900814	57.74
ANDHRA PRADESH	330231	286130	616361	46.42	833953	1177747	2011700	58.54	1164184	1463877	2628061	55.70
KARNATAKA	428907	278828	707735	39.40	637399	999175	1636574	61.05	1066306	1278003	2344309	54.52
KERALA	419611	387933	807544	48.04	213757	295656	509413	58.04	633368	683589	1316957	51.91
TAMIL NADU	101059	38546	139605	27.61	332694	712662	1045356	68.17	433753	751208	1184961	63.40
SOUTHERN REGION	1279808	991437	2271245	43.65	2017803	3185240	5203043	61.22	3297611	4176677	7474288	55.88
ASSAM	265167	173601	438768	39.57	144905	201169	346074	58.13	410072	374770	784842	47.75
NORTH EASTERN REGION	265167	173601	438768	39.57	144905	201169	346074	58.13	410072	374770	784842	47.75
Major States	6519708	5152505	11672213	44.14	9524543	14387350	23911893	60.17	16044251	19539855	35584106	54.91

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