Rashtriya Uchchatar Shiksha Abhiyan

National Higher Education Mission

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MINISTRY OF HUMAN RESOURCE DEVELOPMENT

In association with the Tata Institute of Social Sciences

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Abbreviations

AICTE	All India Council for Technical Education		
BCI	Bar Council of India		
BE	Budget Estimate		
BoG	Board of Governors		
CABE	Central Advisory Board on Education		
CBCS	Choice Based Credit System		
CGPS	Cumulative Grade Point Score		
CPE	College with Potential for Excellence		
CPMS	Central Plan Scheme Monitoring System		
CSIR	Council for Scientific and Industrial Research		
CSR	Corporate Social Responsibility		
CSS	Centrally Sponsored Scheme		
EBD	Educationally Backward Districts		
FMG	Financial Management Group		
FMR	Financial Management Report		
GDP	Gross Domestic Product		
GFR	General Financial Rules		
GPI	Gender Parity Index		
GER	Gross Enrolment Ratio		
GSDP	Gross State Domestic Product		
ICT	Information & Communication Technology		
IDP	Institutional Development Plan		
IGNOU	Indira Gandhi National Open University		
IIM	Indian Institute of Management		
llSc	Indian Institute of Science		
IISER	Indian Institute of Science Education & Research		
IIT	Indian Institute of Technology		
Inflibnet	Information and Library Network		
IPR	Intellectual Property Right		
IUCs	Inter University Centre		
JEE	Joint Entrance Examination		

KPI	Key Performance Index		
MCI	Medical Council of India		
MHRD	Ministry of Human Resource and Development		
MIS	Management Information System		
MMER	Management Monitoring Evaluation and Research		
M. Phil.	Master of Philosophy		
NAAC	National Assessment and Accreditation Council		
NBA	National Board of Accreditation		
NDC	National Development Council		
NET	National Eligibility Test		
NGO	Non-Governmental Organization		
NIT	National Institute of Technology		
NSDP	Net State Domestic Product		
NSSO	National Sample Survey Organization		
NUPEA	National University for Education Planning and Administration		
NVEQF	National Vocational Education Qualification Framework		
OBC	Other Backward Classes		
ODL	Open and Distance Learning		
PAB	Project Approval Board		
PG	Post Graduate		
Ph.D.	Doctor of Philosophy		
PMU	Project Monitoring Unit		
PPP	Public Private Partnership		
QAA	Quality Assurance and Accreditation		
RE	Revised Estimate		
RIDF	Rural Infrastructure Development Fund		
RMSA	Rashtriya Madhyamik Shiksha Abhiyan		
R & D	Research and Development		
RUSA	Rashtriya Uchchatar Shiksha Abhiyan		
SAARC	South Asian Association for Regional Cooperation		
SC	Scheduled Caste		
SET	State Eligibility Test		
SPV	Special Purpose Vehicle		
SHEC	State Higher Education Council		

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SHEP	State Higher Education Plan
S & T	Science and Technology
SPD	State Project Directorate
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribe
STSG	State Technical Support Group
SWOT	Strengths Weakness Opportunities and Threats
TISS	Tata Institute of Social Sciences
TSG	Technical Support Group
UG	Under Graduate
UGC	University Grants Commission
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPE	University with Potential for Excellence
UT	Union Territory
VC	Vice Chancellor
VGF	Viability Gap Funding

Executive Summary

The success of Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) has laid a strong foundation for primary and secondary education in India. However, the sphere of higher education has still has not seen any concerted effort for improvement in access or quality. In the coming decades, India is set to reap the benefits of demographic dividend with its huge working age population. The International Labour Organization (ILO) has predicted that by 2020, India will have 116 million workers in the age bracket of 20 to 24 years, as compared to China's 94 million. India has a very favorable dependency ratio and it is estimated that the average age in India by the year 2020 will be 29 years as against 40 years in USA, 46 years in Japan and 47 years in Europe. In fact, we have more than 60% of our population in the age group of 15 to 59 years. This trend is very significant on the grounds that what matters is not the size of the population, but its age structure. It would be a lost opportunity if we don't take advantage of this dividend. Herein lies the significance of higher education. We must strive to prepare an educated and productive workforce through a concerted effort to improve the quality and relevance of higher education.

The XII Plan continues to maintain focus on higher education in the country, to make it more relevant to the global needs and to remove the inequities in access to education amongst various social groups. Such objectives are sought to be realized by providing adequate inputs and implementing much needed governance and regulatory reforms in the sector. Greater emphasis will be laid on the improvement of the quality of teachinglearning processes in order to produce employable and competitive graduates, postgraduates and PhDs. With respect to the planning and funding approach, some key changes are envisaged; (a) funding will be more impact and result oriented, (b) various equity related schemes will be integrated for a higher impact,(c) instead of unplanned expansion, there will be a focus on consolidating and developing the existing system by adding capacities and (d) there will be a greater focus on research and innovation. A paradigm shift proposed by the Planning Commission is in the arena of funding of the state higher education system. Strategic funding of this sector has been strongly proposed in order to make a marked difference in the overall resource endowment for the state higher education sector.

The higher education system in India today suffers from many shortcomings. Our Gross Enrollment Ratio (GER) is only 19.4%¹ this means that only a fraction of the population in the age group of 18-23 years is enroled in higher education institutions. In addition to very low access to higher education in general, there are wide disparities between various social groups. The GERs for SCs, STs and OBCs are far below the average GER and those of other social groups. There is also a wide gender disparity; GER for males is 20.9% while that for females is only 16.5%. There are also differences in the quality of institutions and enrolments between rural and urban areas and between developed states and not-so-developed ones. Given these myriad challenges, a drastic change is required in the approach that has traditionally been adopted for the development of higher education in the country.

There are four broad categories of higher education institutions in India, centrally funded institutions, state funded institutions, deemed institutions and private institutions. While the centrally-funded institutions (Central Universities, IITs, NITs, IISERs, Institutes of National Importance etc) receive generous funding from the center, they have a limited coverage in terms of enrollment. About 94%² of the students enroled in government funded (48% of total enrolments) or government controlled private institutions come under the state higher education system. It is worth noting that most private education institutions (52% of all enrolments) are affiliated to state universities and come under their academic and administrative control. Thus, any efforts for development in this sector must recognize the importance of state higher education institutions and aim to improve their status.

¹ All India Survey on Higher Education, Ministry of Human Resource Development, 2010-11

²XII Five Year Plan, Planning Commission of India, New Delhi, 2012

While state universities cater to a large number of students, their funding is only a fraction of that provided to central institutions. Over the years most states have not been able to allocate enough funds to higher education; these meager funds are thinly spread as a result of being shared amongst many institutions. Plan expenditure on higher education in states is almost stagnant. As a result, the quality of infrastructure and teaching in state universities is far below the acceptable levels. Shortage of funds and procedural bottlenecks cause vacancies in faculty positions and also compel the state public institutions to look for alternate funding options. Linked to faculty quality and availability are the issues of quality of teaching, research output and general management; in state universities these areas have been grossly neglected.

In order to raise funds, most universities rely heavily on the affiliation fees they receive from affiliated institutions and on self-financing courses. Treating affiliation fees as source of income and starting courses for revenue-generation have led to further dilution of quality and perpetuation of inequity. Except a few institutions, most affiliated institutions depend heavily upon the University for administrative, examination- related and curricular matters. This amounts to an unnecessary burden on the university as it is reduced to an administrative and exam conducting body rather than an institution focused on promoting teaching, research and faculty development of associated colleges. This system also takes away the autonomy of affiliated institutions in teaching and conducting examinations. Instead of increasing access in a positive way, the affiliation system creates a highly centralized and inefficient institutional structure, which does not allow its constituents any room for creativity in teaching, learning, curriculum development or research. In such a structure, quality enhancement can only be brought about by reducing the burden at the university level and giving greater autonomy and accountability to the constituents through affiliation reforms.

In addition to general issues about the quality of infrastructure, teaching and learning in state universities as compared to central universities, there is also an element of intra- state difference within the states, this leads to better institutions developing in urban or industrial areas and consequent neglect of rural and tribal areas. At the state level, there is a lack of vision and planning for the development of institutions and the higher education sector. Given the complexities of managing access and equity issues within and amongst states as well as the large number of institutions that already come under the state university system, there is a crying need for holistic planning in higher education focusing on the state as the basic unit. This planning should be done by an autonomous body, which can raise and allocate funds from the state as well as central government and explore options of revenue generation through research, consulting, private and industry partnerships.

The State Universities are already provided some funds from the central government through the University Grants Commission. However, UGC's mandate allows it to fund only a limited number of institutions that are Section 12B and 2(f) (UGC Act) compliant. As of March 2012, this excluded about 33% of the universities and 51% of the colleges in the country³. UGC is also not allowed to channelize funds through the state government or through any entity other than an educational institution, which makes it impossible for the UGC to fund any planning and expansion activity through a state level higher education body. UGC as a regulator should be actively involved in planning for new institutions but the present system does not permit it to do so. Thus states often complain about being unaware of the development funds that come to the state institutions from the centre; this makes planning and funding very difficult for the states. An optimum solution will be to create an alternate way (a centrally sponsored scheme) of providing funding to a larger number of institutions and channelizing funds through a body that ensures cohesive and integrated planning at the state level. Such a solution makes imminent management sense since it is almost impossible for any central agency to deal with 35000 odd institutions on a one- on- one basis.

Given the pitiable resource condition, wide reach of the state university system, and the limitations of the UGC, there is a strong need for a strategic intervention for the improvement of access, equity and quality in Indian higher education, that focuses on state universities and state institutions though a special centrally sponsored scheme in a mission mode. This document proposes a new centrally sponsored scheme for higher education which will be spread over two plan periods (XII and XIII) and will focus on state higher educational institutions. The scheme will be called Rashtriya Uchchatar Shiksha Abhiyan (RUSA).

There are 306⁴ state universities and about 8500 colleges that can be covered under RUSA. The funding will be provided in the (Center:State) ratio of 90:10 for Special Category States ie North-Eastern States, Sikkim, J&K, Himachal Pradesh and Uttarakhand and 65:35 for Other States and UTs. Funding will be available to private government-aided institutions also, subject to their meeting certain pre-conditions, for permitted activities based on pre-determined norms and parameters.

RUSA will have a completely new approach towards funding higher education in state universities; it will be based on key principles of performance-based funding, incentivizing

³University Grants Commission, Annual Report 2011-12

⁴ University Grants Commission, Annual Report 2011-12, Higher Education at a Glance June 2013

well performing institutions and decision-making through clearly defined norms. A management information system will be established to gather essential information from institutions. RUSA will aim to provide greater autonomy to universities as well as colleges and have a sharper focus on equity-based development, and improvement in teaching-learning quality and research. It will be a new flagship scheme of the government that will pave the way for far reaching reforms at the state level.

Many of the problems in the state universities are linked to the archaic systems and regulations that govern them. Without bringing about reforms in the existing governance and regulatory systems, it will not be possible to unleash the potential of the state universities. The reforms initiated under RUSA will build a self-sustaining momentum that will push for greater accountability and autonomy of state institutions and impress upon them the need to improve the quality of education. In order to be eligible for funding under RUSA, states will have to fulfill certain prerequisites, which include the creation of a State Higher Education Council, preparation of the state perspective plans, allocation of a stipulated % of GSDP towards higher education, academic, sectoral and institutional governance reforms, filling faculty positions etc. Under the scheme, an initial amount will also be provided to the State governments to prepare them for complying with these a-priori requirements.

Once eligible for funding under RUSA, after meeting the prerequisite commitments, the states will receive funds on the basis of achievements and outcomes. The yardstick for deciding the quantum of funds for the states and institutions would comprise the norms that reflect the performance in key result areas (access, equity and excellence). The State Plans will capture the current position of the states and institutions with respect to these indicators, as well as the targets that need to be achieved. The State Higher Education Council will undertake this process of planning, execution and evaluation, in addition to other monitoring and capacity building functions.

The detailed institutional structure of RUSA is also presented in this document. At the national level, the scheme will be implemented by the RUSA Mission Authority and assisted by the Project Approval Board, the Special Purpose Vehicle that will create and run the Technical Support Group and the Project Directorate. The main agency through which RUSA will work in the States will be the State Higher Education Council (SHEC), an autonomous body that will function at an arm's length from the state governments. It may be immediately created through an executive order to be issued by the States, but must be accorded statutory status within 5 years. RUSA has suggested a composition and structure for the Council. The Council will be expected to perform planning, monitoring

& evaluation, quality assurance and academic functions, as well as advisory and funding functions. It will plan for the development of higher education at the state level and the State Higher Education Plan prepared by it would constitute the main instrument to guide the entire transformative process in the state higher education sector. SHEC will be assisted by the State Project Directorate and the State Technical Support Group. In every institution, the Governing Body and a Project Monitoring Unit will oversee the project progress.

The key objectives of RUSA are to improve access, equity and quality in higher education through planned development of higher education at the state level. Such planning will include creating new academic institutions, expanding and upgrading the existing ones, developing institutions that are self-reliant in terms of quality education, professionally managed, and characterized by greater inclination towards research and provide students with education that is relevant to them as well the nation as a whole.



Background

Over the years, higher education in India has gone through a phase of unprecedented expansion, marked by a huge increase in the volume of students, an exponential increase in the number of institutions and a quantum jump in the level of public funding. The increase however has not been commensurate with the growth of the population and its diverse needs.

Today, the higher education system as a whole is faced with many challenges such as financing and management, access, equity, relevance and reorientation of policies and programmes for laying emphasis on values, ethics and quality of higher education together with the assessment of institutions and their accreditation. These issues are of vital importance for the country, since higher education is the most powerful tool to build a knowledge- based society for the future. The enormity of the challenge of providing equal opportunities for quality higher education to an ever-growing number of students is also a historic opportunity for correcting sectoral and social imbalances, reinvigorating institutions, crossing international benchmarks of excellence and extending the frontiers of knowledge.

Recognizing this requirement, as well as the basic fact that institutions of higher learning have to perform multiple roles like creating new knowledge, acquiring new capabilities

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and producing an intelligent human resource pool, the Indian higher education system has to brace itself to address global challenges by channelizing teaching, research and extension activities, and maintaining the right balance between need and demand.

Higher education needs to be viewed as a long-term social investment for the promotion of economic growth, cultural development, social cohesion, equity and justice. In order to meet the XII Plan aim of inclusive growth and to ensure genuine endogenous and sustainable development along with social justice and equity, the higher education sector has to play a pivotal role, especially in generating research-based knowledge and developing a critical mass of skilled and educated personnel. Within this philosophical paradigm, some of the issues pertaining to the higher education system have been identified that need to be squarely addressed for the balanced development of higher education in India.

The globalized era has necessitated the inculcation of competitive spirit at all levels. This can be achieved only by bringing quality of highest standards to every sphere of work. Therefore, the quality of higher education has become a major concern today. Needs and expectations of society are changing very fast and the quality of higher education needs to be sustained at the desired level. The quality of higher education rests on the quality of all its facets, be it faculty, staff, students, or infrastructure. As such, all policies, systems and processes should be clearly directed towards attaining improvement in all the relevant facets for an overall rise in the quality of education.

The XII Plan has kept the above concerns in mind and called for measures that provide higher education to a larger number of students while ensuring equal opportunities for all sections of society and maintaining focus on quality. The XII Plan deviates from the previous plans by suggesting some strategic shifts in the approach towards higher education. Given these strategic shifts and goals talked about in the XII Plan, there is a need to develop a policy that gives concrete shape to this much needed holistic plan for the development of higher education in India.

This document explores the present condition and analysis of past development experiences in the higher education sector and proposes a new centrally sponsored umbrella scheme to address the needs of the higher education sector. The background section looks in detail at the issues of access, equity and excellence in the Indian higher education system. In the section on State Universities, the importance of these issues in the higher education system and the problems faced with respect to these issues are analyzed. This is followed by a section illustrating the urgent need for a strategic intervention in the state universities. The document then delves into the new scheme, RUSA, its key principles, salient features, and institutional and financial structures.

The policy for the development of higher education in India has been mainly governed by the "National Policy on Education" of 1986 (as modified in 1992) and its Programme of Action adopted in 1992. The 1986 policy and its Programme of Action of 1992 were based on two land mark reports namely, the "University Education Commission Report" of 1948-49 (popularly known as the Radhakrishnan Commission Report), and the "Education Commission Report" of 1964-66, (popularly known as the Kothari Commission Report). These two reports laid down the basic framework for the National Policy of 1986 for higher education in the country.

The Radhakrishnan Commission on University Education (1948-49) had enumerated essential goals for development of higher education in India. The commission eloquently articulated the reforms needed in the education sphere in the following words:

"The most important and urgent reform needed in education is to transform it, to endeavor to relate it to the life, needs and aspirations of the people and thereby make it the powerful instrument of social, economic and cultural transformation necessary for the realization of the national goals. For this purpose, education should be developed so as to increase productivity, achieve social and national integration, accelerate the process of modernization and cultivate social, moral and spiritual values."

The National Policy on Higher Education (1986) translated the vision of the Radhakrishnan Commission and the Kothari Commission into an actionable policy by setting five main goals for higher education, as enumerated below:

- Access: Greater access requires an enhancement of the education institutional capacity of the higher education sector to provide opportunities to all those who deserve and desire higher education.
- Equity: Equity involves fair access of the poor and the socially disadvantaged groups to higher education.
- Quality and Excellence: involve provision of education in accordance with accepted standards so that students receive available knowledge of the highest standard that helps them to enhance their human resource capabilities.
- **Relevance:** involves promotion of education so as to develop human resources keeping pace with the changing economic, social and cultural development of the country; and
- Value Based Education: involves inculcating basic moral values among the youth.

The Action Plan of 1992 included schemes and programs that were directed towards the expansion of intake capacity in general, and with respect to the disadvantaged groups such as the poor, SCs, STs, minorities, girls, physically challenged persons, and those in the educationally backward regions, in particular. The schemes/programs were designed to improve quality by strengthening academic and physical infrastructure, in order to promote excellence in those institutions which had exhibited potential for excellence, and to develop curriculum to inculcate right values among the youth.

An analysis of the past five year plans indicates that, there have been continuous efforts to strengthen the base by developing infrastructure, improving the quality through several programs and schemes, introducing reforms in content and evaluation and encouraging creation of new knowledge through research. The focus of V Five-Year Plan was on infrastructure development; the VI Plan onwards the focus shifted to consolidation and quality improvement. The VII Plan laid emphasis on research and academic developments. It was from this plan onwards that the development of centres of excellence and area study programs got special attention. From the VIII Plan onward, the need for differential funding was recognized, it was envisaged that the developing departments would be provided necessary funds to bring up their facilities and activities to an optimum level for their teaching and general research programs. The IX Plan aimed at gearing the system of higher education to meet the challenges arising out of the major social, economic and technological changes. The focus of the X Plan was on quality and relevance of higher education, research and development, management in financing and the use of the new information and communication technologies. The X Plan provided the basis for higher education in the 21st century⁵

The XI Plan laid renewed emphasis on higher education and the three targets of broadening access, making higher education inclusive and promoting improvements in quality. In the XI Plan, the share of education in total plan outlay increased from mere 6.7% in the X Plan to 19.4%, of which 30% was earmarked for higher education. This was a nine-fold increase over the X Plan, viz. Rs. 84,943 crores against Rs. 9,500 crores⁶

⁵Working Group for the XI Plan on Higher Education, MHRD

⁶XIth Plan document, Planning Commission, April 2007

1.1 XII Plan

1.1.1 Objectives

The XI as well as the XII Plan have laid emphasis on improving access, equity and excellence. The XII Plan mentions that access must be increased, preferably though consolidation of existing institutions and special importance is to be given to excellence or quality. Given its subjective nature and being a conspicuous weakness in the Indian higher education system, quality is a hard target to achieve. Quality must be pursued by each and every single higher education institution and not just by a few selected ones. The Plan also talks about incorporating lessons learnt from the past for designing better policies to improve access and equity.

The plan lays out the following as the objectives that must guide central, state and private institutions in the country⁷ -

- 1 Higher education in India to be brought in line with and at the frontiers of global trends in higher education and knowledge development;
- 2 Improvement in the overall quality of teaching-learning in an average higher education institution in the country;
- 3 Arresting and reversing the trend of group inequalities in access to quality higher education;
- 4 Creation of additional capacity for 10 million more students from eligible age cohort to have access to higher education in a demand-driven manner; and
- 5 Undertaking governance and regulatory reforms that focus on institutional autonomy within a framework of accountability and build adaptive capacity of the system.

1.1.2 Approach

The XII Plan cautions against single-minded and narrow strategies for improving access and equity, as they tend to do so at the expense of quality. A holistic approach is argued for, so that expansion is not just about accommodating ever larger number of students in higher education, but also about enabling the expanded pool of students to make choices about subjects and institutions so that they can realize their full potential and realize their personal goals.

⁷XII Five year Plan, Planning Commission of India, New Delhi, 2012

Redressing multiple and graded inequalities in higher education is not just about increasing the GER among disadvantaged groups; it is also about enhancing their presence in the centres of excellence, taking care of their post-admission needs and redesigning curricula to take into account their specific requirements. The challenge of excellence is not just about placing a few institutions and individuals at par with global norms for excellence; it is also about expanding the pool of institutions, scholars and students who continuously strive to improve quality to achieve global excellence. Thus, an interconnected strategy for higher education development is needed to address issues of access, equity and excellence in a coordinated manner.

1.1.3 Strategic Shift

Access, Equity, and Excellence would continue to be the main thrust areas of the XII Plan with respect to higher education. However, considering the inter-linkages between them and taking into consideration the current realities of the higher education, these objectives need to be pursued differently. A strategic shift in thinking is needed in several critical areas ranging from issues of access and equity to teaching-learning process, research, governance, funding and monitoring. These shifts are explained below⁸:

- Significantly Increase funds for higher education and use funds strategically. This investment has to come from both public and private sources and both from the central and state exchequer.
- Connect various funding streams to specific outcomes and desired impact. This would need reforms in governance arrangements at all levels (national, state and institutional), with suitable implementation frameworks and monitoring arrangements
- 3. Foster institutional autonomy and link meaningful academic autonomy and managerial flexibility with effective monitoring and overall accountability through competitiveness.
- 4. Targeted, integrated and effective equity related schemes, instead of the existing maze of multiple, diffused and low-value schemes, so as to give effect to the Constitutional ideal of Equality of Opportunity. Mechanisms for connecting national and state equity programs are needed.
- 5. Institutional differentiation and distinctiveness should be encouraged. The spectrum of higher educational institutions must include multidisciplinary

⁸XII Five year Plan, Planning Commission of India, New Delhi, 2012

research universities as well as short-cycle vocational education institutions.

- 6. A renewed focus must be laid on research by integrating teaching and research.
- 7. Shift from an input-centric and credential-focused approach to learner-centric approach.
- 8. Consolidate rather than expand the number of institutions to ensure that the capacity expansion is done at lower capital costs and quality is maintained while expanding the system. New institutions can still be set up in areas uncovered so far.
- 9. A move towards internationalization of higher education is imperative.
- 10. Creation of alliances, networks, clusters, and consortia of academic institutions amongst themselves and with the research institutions and industry should be facilitated in order to create a self-governing system.

1.2 Higher education today

Over the years, considerable progress has been made in higher education in the country. In the XI Plan, India moved from an "elite" system of higher education to a "mass" system when the Gross Enrolment Ratio (GER) crossed the threshold of 15%. However, our GER at 19.4% still remains below the world average of 29% (as of 2010)¹⁰.



Figure 1 India's GER over time¹¹

This increase in GER has, naturally, been accompanied by an increase in the number of higher education institutions serving the population. From 26 universities and 695 colleges at the time of independence, we have risen to 700 universities and 35,539¹² colleges today. This is a 20-fold and 46- fold increase in the number of universities and colleges, respectively. However, as the low GER very aptly indicates, increase in the number of institutions has still remained inadequate to meet the increased demand for higher education.

⁹ All India Survey on Higher Education, Ministry of Human Resource Development, 2010-11 (Provisional), October 2012

¹⁰ UNESCO Institute for Statistics as accessed on 24th October, 2012)

¹¹ Selected Education Statistics, MHRD

¹² University Grants Commission, Higher Education at a Glance June 2013





The question of GER and educating the youth has gained additional significance given the critical stage of development that our nation is going through. According to International Labour Organisation (ILO) estimates, by 2020 India will have 116 million workers in the age group of 20-24 years as against 94 million in China¹⁴. In addition to this, the average age of Indian population by 2020 will be 29 while many developed countries will be in early or late 40s. To take advantage of this demographic dividend (indeed, to prevent socio-economic complications arising out of a large unemployable young population), this massive workforce would need to be gainfully employed. This means that our country must have the foresight to create systems and capacities

¹³ University Grants Commission, Annual Report 2011-12, Higher Education at a Glance June 2013

¹⁴ http://laborsta.ilo.org/applv8/data/EAPEP/eapep_E.html as accessed on 7th November, 2011

to educate and skill such large numbers of people. Emphasis will also have to be laid on giving an education that supports and promotes employment generation, entrepreneurial spirit and innovation as these are the factors that will help in creating enough sustainable job opportunities within India.





Figure 4 shows the population median projections for the various states in the country in 2026. Uttar Pradesh will be the youngest state in 2026, with a median age of 26.85 years. Bihar, Madhya Pradesh, Rajasthan, Chhattisgarh etc., are other states which will have a fairly young population to deal with over the next decade. Naturally, these states need to be aware of the opportunity and the consequent responsibility that lies in the having a large young working population. It would greatly benefit states to look at various strategies they will need to be employed in the future to train, educate and employ these masses of young people and turn it to their advantage.

Apart from creation of capacities at higher education level, much needs to be done in terms of bringing a larger number of students from senior secondary to higher education systems, overcoming geographical and socio-economic disparities while maintaining focus on quality. The following sections take a critical look at Indian higher education with respect to three important dimensions: access, equity and excellence.

¹⁵ ILO Estimates and Projections of the Economically Active Population: 1990-2020 (Sixth Edition), October 2011





¹⁶ Report of the Technical Group on population Projections, Census 2001, May 2006

1.2.1 Access

As mentioned above, India has a very low GER of 19.4%, indicating that less than a fifth of the population in the age group of 18-23 years has access to higher education in India. Illustrated in the Figure 5, India's GER is far below those of most developed countries and even below that of the other BRIC nations (Brazil, Russia and China).



Figure 5 GER of selected countries¹⁷

Access to higher education differs widely across states (Figure 7 & 8). The more progressive southern states have better GERs as well as higher availability of educational institutions. As mentioned in later sections, these are also states with higher per capita spending on higher education. While most hilly region states have low institutional density, their GERs vary from high to low. This may be due to the fact that higher education does not completely depend on the physical availability of institutions but also on other socio-economic factors such as income of the parents, willingness to migrate, cultural factors etc. States with high population density present a different picture. Here on an average, institutional availability per 1000 sq kms in unable to ensure good access due to the large population and possible lack of institutional capacity. In Bihar, Jharkhand, Odisha and Rajasthan, both the institutional density and GER are very low.

Under the XI Plan, 374 districts were identified as Educationally Backward Districts (EBDs) for the establishment of Model Degree Colleges.. These were districts with below average GER (below 12,4%). Figure 6 illustrates that 191 out of these

¹⁷ The Global Competitiveness Report 2012-2013

374 districts had less that 8 colleges per 1 lakh students. This implies that were all these students willing and able to attend colleges, each college would need to serve upwards of 12500 students. This shows the paucity of higher education institutions serving many remote areas. Also, on an average, about 1/3rd of the weak districts are in tribal/hilly/border/forested areas. Historically, such regions have had low access to education; this evidence further demonstrates the need for special development efforts of these areas.



Figure 6 CPI for 374 districts with GER below national average (as of 2001)¹⁸

Figure 7 depicts the GER figures for each of the States and Union Territories. Seeing the distribution of states around the median GER (Gujarat, 15.9), some interesting observations can be made. The very fact that Gujarat, despite being a state with high growth indicators, has a GER only close to the middle, points to cultural and other factors that affect enrollments in higher education in an area. All the southern states, with the exception of Kerela, lie above the median GER. Kerela, despite 99% literacy and good performance in primary and secondary education has a low GER of just 13.9%. Out of the 7 north-eastern states, 6 are below the average GER of 19. The hilly states of J&K, Himachal Pradesh and Uttarakhand show a fairly high GER, having overcome the obvious geographic handicap. This may be due to the fact that many regions of these states have a strong culture of school education and high gender parity in the society. Chhattisgarh is another notable exception with a GER of 20, even

¹⁸ Thyagarajan Committee Report on Model Colleges Scheme (University Grants Commission), 2009 (based on 2001 Census data)

though the state has large, inaccessible tribal regions; the reach of higher education institutions seems deep. The states of the Hindi belt, i.e., Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh are well below the median GER, pointing to wards building capacities, strengthening school systems and fundamental change in the attitude towards education that is required in these states.

Figure 8 shows the institutional density (no of educational institutions per 1000sq kms) across states. Predictably, the hilly states and northeastern states have lower institutional density due to lack of usable land, difficult terrain etc. Himachal Pradesh and Chhattisgarh have low density of 5.1 and 6.6 institutions per 1000 sq kms, but their high GER suggests that they may have smaller number of institutions, which are large in size and draw students from a larger geographic area. The higher institutional density in Karnataka, Tamil Nadu, Andhra Pradesh, Haryana matches with the high GER is these states. However, Kerala, with almost 1.5 times the institutional density of Tamil Nadu has a GER that is only 1/3rd of Tamil Nadu's. Further research needs to be undertaken to study this pattern. Extremely high density of institutions in Puducherry, Chandigarh and Delhi can be explained by the fact that these areas are educational hubs and attract a lot of students as well as private investment in higher education.

The absence of a strong correlation between GER and institutional density of states points to different aspects that need further study, such as migration of students for higher education, size vs number of educational institutions etc. Another area worth exploring is that increasing institutional density by building more institutions may not be a necessity for increasing GER. As long as students are provided resources & opportunities to attend any educational institution and there is enough aggregate capacity at a regional or state level to accommodate all students, GER can be uplifted. This brings to fore discussions around building capacities of existing institutions, greater emphasis on quality in a smaller number of institutions and intensive investments in higher education in a smaller number of institutions.

These trends and facts provide states with a variety of options using which they may address the access issues. Given the variety of constraints such as land, human resources, infrastructure, remoteness of certain areas, cultural factors etc., the states can design solutions that suit their particular situations the best.

8



Figure 8 Institutional density by State²⁰

	_	
Chandigarh		
Manipur	3.6	236.
Goa	16.2	
Tamil Nadu	18.5	
Delhi		161.8
Puducherry		175.5
Andhra Pradesh	16.5	
Uttarakhand	7.7	
Maharashtra	15.7	
Arunachal Pradesh	0.2	
Himachal Pradesh	6.3	
Karnataka	17.6	
Sikkim	2.1	
Haryana	22.1	
Kerala	27.4	
Mizoram	1.3	
Nagaland	3.5	
Gujarat	9.4	
Punjab	19.4	
Rajasthan	8.0	
Meghalaya	3.1	
Jammu & Kashmir	1.4	
Uttar Pradesh	18.4	
Odisha	7.2	
Chhattisgarh	5.0	
Madhya Pradesh	7.7	
Tripura	3.8	
Assam	6.5	
West Bengal	10.1	
Andaman Nicobar	0.7	
Bihar	7.5	
Jharkhand	2.9	
Dadra & Nagar Haveli	8.1	
Daman & Diu	36.0	
Lakhshwadeep		100.0
	_	

¹⁹ Refer to Annexure I: States at a Glance

20 Refer to Annexure I: States at a Glance

Figure 9 State-wise distribution of Institutions²¹



²¹ University Grants Commission Higher Education at a Glance, June 2013



Figure 10 GER in Public & Private Aided & Private Unaided²²

The question of access and the number of higher education institutions cannot be seen only from the narrow point of view of the government's involvement. More than half of the students enroled in higher education today are under private educational institutions. With respect to GER in Public, Private and Private Unaided institutions, estimates from the NSSO highlight that 46% is in the Public space, while over 50% is in the Private (aided & unaided) space (Figure 10). Some states and regions witness more private participation in higher education while remote, physically inaccessible, economically backward areas of the country find it tougher to attract any private investment. There is a vast disparity between the number of institutions across states. Tamil Nadu, Andhra Pradesh and Maharashtra are known for a large number of private institutions while north eastern and hilly states have very few institutions, of which private are proportionally fewer. While private players do bring investments in higher education, there is always the danger of dilution of quality and over-commercialization of education. This creates many options for state governments in terms of the mix of investments and regulations that they may apply to maximize the benefits of private investments in higher education while safeguarding the interest of students.

Having discussed the various aspects of access, it is important to note that a high GER does not depend solely on the attributes of higher education system in the country but also on the quality and output of the school system. Higher education institutions receive only a limited pool of students from the school education system. Economic considerations, cultural factors, low performance etc. often force many students to drop out of schools after the primary and secondary levels in India, however, this

situation is improving rapidly. The transition rate of students completing higher secondary education and entering higher education stood at 61.4% in 2007. This now stands at 67.5%, which can be significantly improved (See figure 11 and 12). The success of Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and the consequent improvement in transition rates is going to increase the number of students that will opt for higher education and thus, it makes a strong case for enhancement of financial support for expansion, upgradation and quality improvement of higher education system. Such enhancement can bring about balanced growth of new institutions, based on spatial and need-based planning. This, in turn, can help absorb the ever increasing number of students completing the higher secondary level.





Figure 12 Students transiting from higher secondary to higher education²⁴



²³ Selected Education Statistics, MHRD

²⁴ Selected Education Statistics, MHRD
1.2.1.1 XI Plan Experience: Access

In the XI Plan, total enrollments in degree and diploma programmes grew by 4.8 million, from 15.4 million to 20.2 million. In the XII Plan, the target is to create enrollment capacity of 10 million, with 1 million for distance learning, 3.3 million for skill-granting diplomas and 5.7 million for degree programs. This would help an additional 3 million students of each age cohort (18-23) to enter the higher education stream and raise the GER to 25.2%²⁵ by 2017. The enrollment capacity of central institutions will have to be doubled from 0.6 million to 1.2 million while state institutions will add another 2.6 million. The rest of the capacities are expected to be created in the private education segment.

In the XI Plan, two centrally sponsored schemes were proposed, to set up higher educational institutions and expand existing educational institutions. The first scheme intended to set up a Model Degree College in each of the identified 374 EBDs identified, where the GER was less than the national average of 12.4 % in relation to the total population in the 18-23 age group (as per the Selected Educational Statistics of the year 2006-07). Colleges already in existence, but set up after 1st January 2008 (i.e. after the in-principle approval of the scheme by the National Development Council) were also eligible to be covered. The second scheme intended to incentivize states to establish degree colleges and new engineering colleges or expand existing higher educational institutions in those districts where the GER was between 12.4% and 15%. The physical target was to set up 50 new universities, 500 new colleges and 30 new engineering colleges under this scheme.

The central-state funding pattern for the scheme to set up Model Degree Colleges in 374 EBDs was 1:1 for special category states (i.e. all North-Eastern states, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttarakhand) and 1:2 for the rest of the states. The cost of each Model Degree College was Rs. 8 crores and was later revised to Rs. 4 crores. Land was to be provided free of cost by the state governments, which would also bear the recurring costs. The response of the States to the scheme of setting up Model Degree Colleges in 374 EBDs was not very enthusiastic. Under the scheme, the centre had to contribute 1/3rd of the cost (Rs 8 crores or Rs. 4 crores under the revised cost) of setting up a model degree college. As on 31st March 2012, only 153 proposals had been received from the states of which only 86 had been approved. There are a couple of reasons for the poor performance of these schemes. Firstly, many states and institutions

²⁵ XII Five Year Plan, Planning Commission of India, New Delhi, 2012

considered the eligibility conditions too strict and requested for their relaxation (for e.g. bringing colleges set up before 1st January 2008 within the scheme's ambit). Secondly, due to the lack of funds with state governments, they were not able to match the grants made by the centre and not many states applied for setting up colleges under the scheme. The central contribution of 1/3rd of capital cost was considered very low by many states. Even the decrease in the cost limit to Rs 4 crores did not provide the necessary impetus and the scheme did not fully achieve its objectives and targets.

The second scheme, i.e. the incentivization of states for setting up new institutions and expanding existing institutions, was proposed in the year 2010, but could not be sanctioned since the Planning Commission recommended that an umbrella scheme subsuming similar schemes may be taken up in the XII Plan. This recommendation of the Planning Commission constitutes the basis for the formulation of RUSA.

1.2.2 Equity

Inclusive development is another important goal of the XII Plan. Since economic resources, mobility, and socio-cultural background are important criteria in determining the accessibility and cost of higher education for a student, disparities are widely visible across geographical regions, genders and socio-economic and socio-religious groups (Figure 13).



²⁶ Ministry of Statistics and Programme Implementation, MHRD Statistics of Higher & Technical Education as on 30th September 2009 Spanning the issue of inclusion, are the disparities between various caste groups. The GER amongst SCs and STs is much lower than the national average, and Muslims also have very low GER. Scheduled castes and minorities have lower access mostly due to socio-economic factors while tribal areas have lesser number of institutions serving them. Students from these groups are often required to migrate for education, in which case, non-availability of residential facilities and supporting infrastructure in the institutions is a major concern.

Figures (14, 15 and 16) show the GER across states among Schedule Castes, Scheduled Tribes and Other Backward Classes respectively, based on the 66th round of NSSO estimates. Inter-state variations amongst these groups in the development of higher education are glaring in India. Across the board, the GER for SCs is higher than the GER for STs. This may be because ST communities are often physically distanced from educational institutions. States of Haryana, Punjab and Goa are examples of states where there are very few rural or inaccessible areas and thus the ST GER is also very high. There are some states such as Delhi and Bihar where the ST population is negligible, thus the GER is skewed and very close to zero. However, many other states such as Gujarat, Tamil Nadu, Madhya Pradesh, Odisha, Uttar Pradesh have very low ST GERs despite a fair proportion of ST population.

The GER for SCs is higher on an average. States like Nagaland, Mizoram, Goa, Lakshwadeep etc have very small SC populations, hence the skewed GER. Again, states with a fairly sizeable SC population but low GERs are Bihar, Madhya Pradesh, Gujarat, West Bengal, Rajasthan etc. Bihar, Assam and Gujarat are again the lowest performing states when it comes to inclusion of OBCs, while others like Rajasthan and Madhya Pradesh have higher OBC GERs. This may be because of the fact the economic strength and societal positioning of SC and OBC populations vary widely across states. Since access to higher education is closely linked to resource availability, the SC and OBC GERs vary widely.

The GER of SCs, STs and OBCs (according to the 66th round NSSO estimates) are a definite improvement over the earlier NSSO estimates. It is observed that efforts taken in the XI Plan for equalizing access among social groups has paid dividends. However, much more needs to be done to reduce inter-state disparities amongst social groups and improve their GER.

Figure 14 GER - ST population Figure 15 GER - SC population across states²⁷ across states²⁸ Pondicherry 16.6 A&N Islands 12.8 Tamil Nadu 23.1 Tamil Nadu 6.6 Kerala 14.7 Kerala 14.7 Lakshdweep Lakshdweep 5.0 Goa Goa Karanataka 12.5 20.9 Karanataka Andhra Pradesh 17.0 Andhra Pradesh 12.9 Maharashtra 20.9 Maharashtra 9.9 17.3 Dadra & Nagar Haveli Dadra & Nagar Haveli 2.5 Gujarat 4.8 Daman and Diu 25.1 Madhya Pradesh 6.8 6.5 Gujarat Chattisgarh 25.5 Madhya Pradesh 4.1 Orissa 12.9 Chattisgarh 11.1 Jharkhand 18.3 Orissa 2.4 West Bengal 8.3 Jharkhand 9.0 Assam 13.2 West Bengal 8.9 13.3 Meghalaya Assam 12.5 Tripura 6.2 Meghalaya 10.2 Mizoram 0.0 Tripura 5.3 Manipur 28.3 Mizoram 11.1 Nagaland 0.0 Manipur 22.6 Arunachal Pradesh 15.9 Nagaland 20.0 Sikkim Arunachal Pradesh 14.6 Bihar 2.5 Sikkim 9.2 Uttar Pradesh 11.3 Bihar 0.0 Rajasthan 7.9 Uttar Pradesh 8.9 Delhi 20.7 Rajasthan 12.8 Haryana 14.6 Delhi 0.0 Uttaranchal 13.5 Haryana 42.0 Chandigarh 13.7 Uttaranchal 16.6 Punjab 9.7 Punjab 43.1 Himachal Pradesh 13.4 Himachal Pradesh 17.2 J&K 15.3

²⁷ NSSO, 66th Round (2009-10)

5.7

30.0

60.0

90.0

0.0

J&K

²⁸ NSSO, 66th Round (2009-10)

0.0

20.0

0.0

35.5

40.0



Figure 16 GER - OBCs across states²⁹

Figure 17 GER - Others across states³⁰

²⁹NSSO, 66th Round (2009-10)

³⁰ NSSO, 66th Round (2009-10)



Figures 19, 20 and 21 give the varying GER levels across religions, physical location and social groups. GER in rural areas across the board is lower than that in urban areas. Communities that are economically stronger (such as Jains and Zorastrians) have a high GER. Muslims have the lowest GER amongst various groups. The biggest percentage increase in GER in moving from rural to urban area is seen amongst Muslims and Hindus.







³¹ ibid

³² NSSO, 66th Round (2009-10)

³³ NSSO, 66th Round (2009-10)

Figure 21 brings out the GER of various caste categories within socio-religious groups. As observed elsewhere, ST GERs are lowest across groups while 'Others' are placed far above the disadvantaged social groups.





GER amongst rural areas (13.9%) is much below the national average, while the GER in urban areas is more than twice that of rural area. The GER and the distribution of institutions across rural and urban areas are much skewed. The GER in rural areas is almost half as that of urban areas (Figure 22), especially amongst women. With the mushrooming of private colleges and universities without any central or state planning, the balance between urban and rural spread of institutions is increasingly tilting towards urban areas. While India is tending towards urbanization, 68.8%³⁵ of the population still resides in rural or semi-urban areas. And even though development of educational hubs has its advantages, the rural areas should not remain deprived of access to higher education institutions. Therefore, increasing institutional reach in rural areas must also be addressed in a targeted manner.



³⁴ NSSO, 66th Round (2009-10)

³⁶ All India Survey on Higher Education, Ministry of Human Resource Development, 2010-11 (Provisional)

³⁵ Census 2011





Figure 24 GER among Occupational Groups, Rural³⁸



Figure 25 GER among Occupational Groups, Urban³⁹



³⁷ NSSO, 66th Round (2009-10)

³⁸ NSSO, 66th Round (2009-10)

³⁹ NSSO, 66th Round (2009-10)

The enrolment rates for various occupational groups in rural areas (see Figure 24, 25) indicates that the GER for agricultural labour (7%) is the lowest while the selfemployed in non-agriculture (13.80%) and self-employed in agriculture (15.80%) are comparatively better. Occupations are closely linked with income groups and agricultural labourers are perhaps amongst the weakest group amongst the country. The category of "others" has very high GER, though more information may be required as to exactly which group of persons come under this classification. This data points towards the most vulnerable (but by no means small) sections of the society, massive and targeted efforts are required to improve educational attainment in such groups.

The other aspect of equity is women's access to higher education. In the age group 18-23 years, females are far behind males. While GER for women and girls is estimated to be 15.8 percent, it is 22.8 for men. Oddly enough, in the urban areas, the difference between GER for men and women is even higher than that in rural areas.



*This data collected by the National Sample Survey Organization uses a different methodology for calculation of GER, hence the figures above may not be the same at those compiled by MHRD

For female students as well as students from disadvantaged backgrounds, the lack of financial resources and challenging social conditions are the primary concerns in accessing higher education. Scholarships for such students, financial assistance throughout higher education, creation of hostels and peer-group support are some of the basic steps that can be taken to bring them into the fold of higher education.

⁴⁰ Estimated from unit level data contained in CD of NSS 66th Round of Employment and Unemployment by Bino Paul, Labour Market Research Facility, TISS



Figure 27 Distribution of Women's Universities and Colleges⁴¹

Many socio-cultural factors contribute to lesser women enrolling for higher education and inadequate infrastructural support at the institutions further reduces their participation. Rajasthan, Odisha, Chhattisgarh, Jharkhand, Assam and Bihar are amongst the most backward in terms of gender parity in higher education (Figure 28), with alarmingly low levels amongst the ST and SC populations. Given the socio-cultural make-up of our society, it has often been felt that opening women's colleges and universities is a useful way of increasing access as parents are more comfortable in sending female students to such establishments, especially if the students are sent to other states or cities. The proportion of women's colleges (8.6%) is more than women's universities (1.1%), however, these proportions are still fairly low.

The above estimates drawn from the 66th round of NSSO amply demonstrate that while there have been considerable improvements in equalizing access to higher education amongst the various groups mentioned above, largely due to various interventionist strategies adopted in the XI Plan, there is a need for a more holistic strategy to be adopted. These interventions should aim to improve educational infrastructure in under-served areas, to stimulate their participation, encourage through policy interventions participation of marginalized population groups and provide selective opportunities for the accelerated participation of such groups.

⁴¹ All India Survey on Higher Education, Ministry of Human Resource Development, 2010 -11 (Provisional)





⁴² All India Survey of Higher Education, MHRD, 2010-11

1.2.2.1 XI Plan Experience: Equity

Efforts made towards improving equity in higher education such as setting up of 374 Model Degree Colleges, establishment of universities in backward areas, reservation of seats for disadvantaged groups and provision of student loans and scholarships have indeed led to marked improvement in certain states. The following main lessons have been learnt from these efforts: Firstly, improving enrolment in general will not ameliorate inequities and special efforts will be required to deal with problems of geographically backward areas, women and backward classes; furthermore, specific initiatives will have to be taken for each category. Secondly, the multiplicity of central and state run schemes and scholarships and cumbersome application processes prevent many students from being aware of and availing many benefits.

1.2.3 Excellence

Excellence in higher education is also a major aim of the XII Plan. The quality of our current education system leaves much to be desired. As per the Times Higher Education Rankings 2012-13, the top ranked Indian institutions are IIT Kharagpur (234), IIT Bombay (258) and IIT Roorkee (267). The top ranked institutions as per the Quacquarelli Symonds (QS) System 2012 were IIT Delhi (212), IIT Bombay (227) and IIT Kanpur (278). Apart from the fact that none of the Indian institutions ranked are in the top 200, interestingly no Indian university finds a place in these rankings. These rankings are limited in their scope and coverage of institutions, especially those in Asia. However it is worth looking at the components on basis of which good quality Universities are judged. Firstly, single discipline universities and universities dedicated to just postgraduate studies are not considered because of their narrow focus and areas of strength. The major components considered are teaching (learning environment, student teacher ratio, quality of curriculum), research (volume, income from research, reputation), and citations (research influence). Other factors included are international outlook, industry income, employer reputation etc. Indian higher education is not particularly strong in the above-mentioned areas, which is certainly a cause for concern. The university system in India needs to look at these parameters closely and endeavor to improve each one of them and especially focus on the component of research.

Apart from international rankings, other parameters of judging quality are employability and employer satisfaction. According to a survey conducted by World Bank-Federation of Indian Chambers of Commerce and Industry (FICCI), 64% of

employers are "somewhat", "not very", or "not at all"⁴³ satisfied with the quality of the engineering graduates they hire. In another study, Infosys found less than 2% of its 1.3 million job applicants acceptable in 2006⁴⁴.

Innovation and creation of new knowledge are the major areas in which universities in the developed countries have an edge over their Indian counterparts. Investment in R&D in developed countries is not limited to public funding; funding from the private sector (especially industry) is equally important. This has helped universities and industries in such countries maintain their competitive edge. An analysis of global R&D investments shows that the bulk of such investments come from countries like USA (32.4%), Japan (13%) and China (9.2%). India's share remains low at 2.2%.





At its present stage of growth, India and other developing nations require knowledge based value-added development of areas like pharmaceuticals, biotechnology, Nano sciences, healthcare, genetics, IT etc. Intensification and expansion of research oriented higher education in the university system is the way forward. Such intensification and expansion would be possible through the infusion of massive public investments that would ensure quality and help larger number of aspiring universities to excel instead of remaining limited to relatively small and specialized research oriented institutions. An alarming trend is the decline in India's share of

⁴³ Saeki, H. and Blom, A. Employability and Skill Set of Newly Graduated Engineers in India". World Bank Policy Research Working Paper. 2010.

⁴⁴ Surowieki, J. India's Skills Famine. The New Yorker. 2007

⁴⁵ UNESCO Institute for Statistics (http://stats.uis.unesco.org/unesco/TableViewer/document.aspx ? ReportId=136&IF_Language=eng&BR_Topic=0) as accessed on 24th October 2012

world researchers, which stood at 2.2% in 2007, a reduction from 2.3% in 2002. A study on India's research output by Thomson Reuters in 2010 has estimated India's global share of scientific publication to be about 3.5% for 2010. On the other hand, China's share has increased from 14% to 21.1% during the period under study (2002-2007). The numbers of PhDs produced by India are less than half of those in USA. China's steady increase in PhDs is worth noting; in 2002 India and China were not too far apart in the number of PhDs. However, by 2007 China had surged rapidly ahead in terms of its research output and is now almost rivaling USA.



Figure 30 World publications of selected countries (in 000's)⁴⁶

Figure 31 Number of PhDs (in 000s).47



⁴⁶ Gupta, B.M. & Dhawan, S.M. "Status of India in Science and Technology as reflected in its Publication Output in Scopus International Database -1997-2007". India: Science & Technology. 2008

⁴⁷ Sunder. S. Higher Education Reforms in India. *Yale University*. 2010.

The experiences of China in the field of higher education deserve a closer scrutiny and perhaps, emulation. China launched 'Project 211' in 1995, as part of its national priority for the 21st century, involving important universities and colleges in 1995, with the intent of raising the research standards of high-level universities and cultivating strategies for socio-economic development. It subsequently launched the 'Project 985' in 1998 to further promote the development and reputation of the Chinese higher education system. The project involved large allocations of funding to select universities in order to build new research centres, improve facilities, attract world-renowned faculty and visiting scholars etc. As a result of 'Project 985', nine universities in China were converted into Research Universities. The progress of these universities in R&D was so immense that most of them now are recognized world over for their research output.



A recent report from Thomson Reuters has presented the changing trends in number of publications and India's global share with respect to scientific publications. It is evident from trends presented in Figure 33a and 34 that India has started, since 2002, to regain the volume share of scientific publication lost during 1980s. Based on relative share, India ranks currently 9th in the world with respect to scientific publications in journals covered under Scientific Citation Index (SCI). Based on current trends, India could vie for a share of about 5%, within next 5 years, up from its current 3.5%. This would call for planned investment and concerted action from all the stakeholders⁴⁹.

⁴⁸ UNESCO Institute for Statistics (<u>http://stats.uis.unesco.org/unesco/TableViewer/document.aspx</u>? ReportId=136&IF_Language=eng&BR_Topic=0), as accessed on 24th October, 2012

⁴⁹ Biometric Study of India's Scientific Publication Outputs during 2001-10; Evidence for Changing Trends Dept. of Science and Technology, Government of India July 2012.

Figure 33 Trends in Publications⁵⁰



a. Changing Trends in Number of Publications

b. Trends in Global Share of Publications



Comparison of Indian performance with respect to SCI publications compares favourably with many other emerging economies but not China as seen in Figure36. Countries like Korea and Brazil are growing their research outputs at high rates. Therefore, it is important for India to scale up its R&D effort engagement if it has to have a relative advantage over other emerging economies.





Figure 34 Comparative Performance of India with respect to Emerging Economies with respect to SCI Publications⁵¹

With respect to citation impact, comparisons of Indian performance with respect to some developed countries (as represented in Figure 35) show that, at present, India does not compare favorably with them. However, the relative share of many developed countries in scientific publication is decreasing at this time, therefore, with substantial investment in R&D it is expected that India would emerge as an important power over the next few decades.⁵²



Figure 35 Comparison of Citation Impacts of Indian Publications with some Developed Economies⁵³

⁵¹ ibid

⁵² ibid

⁵³ ibid

Figure 36 Comparison if Citation Impacts of Indian Publications with some Emerging Economies⁵⁴



An important element in ensuring quality and excellence in Higher Education is adequate availability of good teaching staff in Institutions of higher learning. While there has been a two-fold increase in the growth of teaching staff over the last decade (Figure 37), this has not clearly kept pace with the growth of Universities and Colleges and Enrolment that have risen at a far greater rate.



Figure 37 Growth of Teaching Staff in Universities and Colleges⁵⁵

⁵⁴ ibid

 $^{\rm 55}$ University Grants Commission, Higher Education at a Glance, June 2013



Figure 38 Growth of Higher Education: Universities/Colleges/Students enrolment/Teaching Staff: 1950-51- 2012-13*⁵⁶

The direct impact of increasing student numbers and slow growth in the faculty numbers is seen on the student teacher ratios. Figure 39 highlights the student-teacher ratios in selected countries. The student teacher ratio in India (24:1) is very low as compared to other countries, 9.5:1 in Sweden; and 13.6:1 in the United States. A low student teacher ratio indicates the burden on a single teacher of teaching multiple students as well as the lack of time that each student gets. Apart from this simplistic effect, in an institution of higher learning, less number of and overburdened teachers are also unable to pursue any research or encourage their students to so. Consequently, the culture of questioning and reasoning cannot be inculcated as a part of higher education in most institutions.



Figure 39 Student-teacher ratio is selected countries⁵⁷

⁵⁶ University Grants Commission, Higher Education at a Glance, June 2013

⁵⁷ UNESCO Institute of Statistics as accessed on 24th October, 2012 and MHRD Statistics of Higher and Technical education in India, as on 30th September 2009

There are multiple reasons for low student teacher ratios. Even though the student intake of colleges and universities has increased over time, due to the fear of taking up an almost life-long financial burden of paying the faculty, most institutions hesitate in creating new faculty positions. In addition to the low number of sanctioned faculty positions, faculty vacancy even in sanctioned strength is an extremely serious problem. Due to various reasons such as ban on recruitment, lack of funds, and reluctance of states to bear the long-term salary burden, a large number of faculty positions are not filled. According to the Dhande Committee report, the faculty strength as of 2008 was 6,99,644 with vacancies close to 40%⁵⁸. Attracting faculty is a big challenge for rural and backward areas because of lack of infrastructural support and reluctance of teachers in moving to non-urban areas.

Many institutions also face acute shortage of experienced and senior faculty; this hampers curricular development, research initiatives and the general management of institutions. universities departments and constituent colleges do not suffer from this shortage as severely as affiliated colleges do. Again, many affiliated colleges are privately owned and have limited incentives to employ senior faculty members by paying higher salaries (see Figure 40). Many private colleges are now employing teachers on contract basis and paying them meager salaries, sometimes on per lecture basis. This defeats the goals of quality teaching and learning. The Supreme Court in its landmark judgment in T.M.A. Pai matter, had severely castigated institutions which do not employ full time qualified faculty. It said that, *"teachers are like foster parents to the students. Can we afford to place the future of the country in hands of these hired teachers."*. It is interesting to note that the trend of appointing teachers for a short term and not a "tenure" term is also observed in many universities in United States due the severe shortage of funds they have seen in the past few years.

⁵⁸ Sanjay Dhande Committee on Faculty Shortage and Performance Appraisal System



Figure 40 Level-wise teaching staff⁵⁹

One of the best ways of ensuring quality in higher education is the system of accreditation, whereby, a central body or multiple bodies of repute accredit an institution's academic rigor and other aspects. Internationally, this system works well as the accreditation is carried on by varied peer groups of academicians, thus it is fair and acceptable. Accreditation is seen as a necessity in order to attract good students. Thus, the presence of one or many Independent quality assurance mechanisms is a sine qua non for quality and excellence. Unfortunately in India, the accreditation of higher education institutions and programs is optional and has not yet caught up as a trend. While institutional accreditation through National Board of Accreditation (NBA) gained momentum during the XI Plan, the coverage of institutions is still small. As of August 2013, less than one-third (179 out of 574⁶⁰) of all universities and only 13% (5156 out of 35,539) of eligible colleges have been accreditation. This means that there is effectively no standard national level monitoring in terms of quality for most of the educational institutions.

⁵⁹ University Grants Commission, Annual Report, 2011-12

⁶⁰ NAAC, Bangalore, 2013

Map 1 Number of Colleges





Figure 41 Proportion of Universities and Colleges accredited by NAAC

A very basic hurdle in improving quality in most institutions in the country is that the very concept of good quality education is not widely understood or appreciated across the spectrum of institutions. There is very little discussion within institutions on improving the quality research or research output, far from it, even raising the levels of teaching and learning are not an area of focus. In many cases this is only a matter of exposure. While even applying for an accreditation process, an institution is forced to undergo certain processes of self-assessment that throws light on the various aspects of quality. Usually, the very process of application energizes the institution and faculty members to look at their performance critically, thus orienting them towards producing better quality output.

A concerted effort is needed to ensure that quality informs every process in higher education. Any new scheme planned by the government must ensure that accreditation becomes mandatory and sufficient incentives and disincentives are built into the system to ensure that every higher education institution obtains accreditation. More importantly, there needs to be a debate at every level in the system, about the quality of higher education that we are providing.

1.2.3.1 XI Plan Experience: Excellence

Several initiatives to improve the quality of higher education institutions were taken up in the XI Plan. These related to faculty improvements, use of technology, academic and governance reforms and accreditation. These initiatives have yielded limited results. Acute faculty shortages continue at both state and central levels; about a half of the faculty positions in state universities and colleges are vacant. Most of these vacancies are due to ban imposed by the state governments

on filling up faculty positions in State Universities. Even in central institutions, about one-third faculty positions are vacant at any point of time. In both cases, procedural delays are common. More importantly, the universities are often not able to fill the middle/senior level faculty positions for want of suitably qualified and experienced persons. The rapid expansion of the system in recent years has exacerbated the problem. Efforts to recruit faculty through five-year central sponsoring have also not received enthusiastic response from states due to their fear of eventual increase in their payroll burdens. It has been observed in many states that salaries of faculty especially in affiliated colleges are not even paid in time. Sometimes salaries are not paid for months together. Under such circumstances, it is very difficult to get existing faculty involved and to remain committed to the teaching profession.

Teach for India's Higher Education

It is a well-known fact that many Indian students who go outside the country for higher education are interested in returning to their country in the field of education. Many individuals who have invested five or more years of their lives to complete PhDs and post-docs are finding themselves looking for opportunities in India. However, given the lack of structured programs, flexible options and difference in environment, they are reluctant to return.

This presents an opportunity to create a Teach for India Higher Education Fellowship program to provide two- to three-year teaching post-docs or assistant professor positions for recent PhD graduates from reputed Universities abroad. This could be branded like the Teach for India program for school teachers. The hope would be that many young faculty would stay on after the fellowships in Indian academic posts and this influx of talent from different eco-systems will help improve the teaching and research environment of the Indian universities. It could be open to all new graduates in subjects where Indian universities have faculty shortages.

While it could be open to all nationalities, it might be particularly appealing to the Indian natives who may have been planning to return at some point in their lives. A study¹ done on the same area suggests that to make the program attractive, marketing of it should stress several key messages: giving back to India, helping to build its HE capacity, and having the opportunity to do research. The latter can be achieved by keeping teaching and administrative loads fairly low, allowing the fellows to publish their research in leading journals, which would in turn help raise the status of Indian universities.

¹http://knowledge.wharton.upenn.edu papers/ download/050411_willtheyreturn.pdf as accessed on 31st October, 2012

1.2.4 Funding

Higher education needs to be empowered, as it, and it alone helps in sustainable, social, economic and political development of the society and provides some assurance of social equity. Empowerment of higher education requires liberal funding by the government.

Higher education is widely recognized as a public good or at least as a quasi-public good as it produces a huge set of economic, social, cultural, demographic and political externalities. The government has now recognized post- elementary education as a Merit-2 good (elementary education is recognized as a Merit-1 good), that needs to be financed considerably by the state. Today Higher education cannot be a 'non-priority area' anymore, and higher education institutions cannot be treated as if they are a part of non- essential sector. Therefore, higher education requires sustained funding from the public exchequer.

While international comparisons have their own limitations, they nevertheless provide some broad indications on the relative positions of a country in comparison to others. Figure 42 (UNESCO Institute of Statistics) shows the world –wide situation with respect to expenditure on education as a percentage of GDP. Total expenditure on higher education has increased remarkably in India's post-independence period. Government plan expenditure on higher education has grown from Rs. 17 crores/ per annum at the inception of planning to nearly Rs. 9000 crores in the early years of this decade. Figure 43 shows the expenditure on Higher Education in India as a percentage of GDP during the fag end of the XI Plan period.



Figure 42 Expenditure on education at a % of GDP⁶¹

Public expenditure on higher education has been subject to severe budget squeeze since the beginning of the 1990's. Figure 44 and 45, show the total public expenditure on higher education and the share of central and state government towards expenditure in higher education. While it is encouraging to see that central government share in public expenditure has increased, there is a decline in states share of public expenditure. Therefore, there is a need for state governments to increase their share of public expenditure in higher education.



Figure 43 Expenditure on Higher Education in India (As % of GDP)⁶²

⁶¹ UNESCO Institute for Statistics (<u>http://stats.uis.unesco.org/unesco/TableViewer/document.aspx</u>? ReportId=136&IF_Language=eng&BR_Topic=0), as accessed on 24th October, 2012

⁶² Analysis of Budgeted Expenditure on Education, MHRD, 2009



Figure 44 Government Expenditure on Higher Education in India

Figure 45 Government Expenditure on Higher Education in India



Per student public expenditure on higher education in nominal terms has increased in the post-independence period but the real expenditure has registered a negative growth for the period from 1990-91 to 2002-03. However, the trend towards the public expenditure per student in the 11th plan period has been encouraging and needs to be continued for improving quality education.

⁶³ Analysis of Budgeted Expenditure on Education, MHRD, 2012





This chapter captures the state of the Indian higher education system from the perspectives of equity, access, excellence and finance. Having understood the general shortcomings, experience with the past plans and the magnitude of the challenges that face the country in the coming years, the lessons learnt must be built into the new scheme so as to effectively address all the relevant challenges. In the next chapter we look at an important (but possibly the weakest) sub-section of the Indian higher education system, the State Universities; the means through which higher education is administered and imparted to 94% of the students.

⁶⁴ Inclusive and Qualitative Expansion of Higher Education, University Grants Commission





"Our university system is, in many parts, in a state of disrepair...In almost half the districts in the country, higher education enrollments are abysmally low, almost two-third of our universities and 90 per cent of our colleges are rated as below average on quality parameters... I am concerned that in many states' university appointments, including that of vice-chancellors, have been politicized and have become subject to caste and communal considerations and there are complaints of favoritism and corruption."

- Prime Minister Manmohan Singh in 200765

⁶⁵ Prime Minister's address at the 150th Anniversary Function of university of Mumbai, http://pmindia. nic.in/speech/content.asp?id=555 as accessed on Sept 16th, 2012

With the rapid expansion of higher education institutions in India, the role and importance of state universities cannot be understated. Many state universities are in a state of disrepair today; they need greater financial support from the states and center, greater responsibility and accountability for the utilization of funds, reforms in their governance structures, academic and examination reforms and changes in the affiliation structure. Any effort towards improving the higher education system in India cannot exclude the state institutions from its purview. The transformation in state universities and colleges can only ensure that we usher the country towards the goal of "knowledge society". While centrally funded institutions are of a very good quality, they still remain islands of excellence, catering to the knowledge requirements of a few select students. The large mass of students in state sector remains cut off from good quality higher education and this trend needs to be reversed.

Of the students studying in public institutions, only 6% are enroled in the centrally funded or controlled institutions while the state controlled public institutions cater to about 94% of the students enroled . Students studying in public institutions only constitute about 42% of the total enrolments; the remaining 58% are enroled in private institutions including aided and unaided (Table 1). Most of the private institutions (especially colleges) come under the state university systems and depend on them for administration, curriculum, examination and other quality-related aspects. It is evident that in order to achieve its objectives of access, equity and excellence, given the number of students that state universities cater to the thrust of future plans should be on strengthening state university system. Any new scheme for state universities should necessarily encourage restructuring and reforms in affiliated colleges.

Even as a case is made out in this chapter for allocating greater amount of funds to the State Universities, it is also true that the capacity of the State Universities to absorb funds is low and any new scheme must keep this critical bottleneck in mind. Providing larger quantum of funds cannot be the only solution; reforms in the entire state sector must be attended to simultaneously. Emphasis must be laid on removing the hurdles in fund absorption such as restrictive bureaucratic processes, slow decision-making and archaic administrative systems etc. Hence, the scheme must incentivize reform processes in the higher education system as well as the Universities, which can only ensure optimum and timely utilization of funds.

Category	2007-08	2011-12	Increase	Growth Rate (%)
By type of institutions				
Government	68.07 (44.1%)	84.90 (42.0%)	16.83	4.5
Central	3.46 (2.2%)	5.10 (2.5%)	1.64	8.1
State	64.61 (41.9%)	79.80 (395%)	15.19	4.3
Private	86.41 (55.9%)	117.10 (58.0%)	30.97	6.4
By degree / diploma				
Degree	133.32 (86.5%)	169.68 (84.0%)	36.36	4.9
Diploma	20.89 (13.5%)	32.33 (16.0%)	11.32	9.1
Total	154.21	202.00	30.9%	5.6

Table 1 Enrolments by types of institutions (in lakhs)

2.1 Funding state universities

The growth in the number of state institutions has been lagging in the past few plans. In the XI Plan, the number of central degree awarding institutions grew at a far greater pace (13%) than degree awarding institutions in states (4.5%). A lot of funds are invested in the creation of central institutions, even though their capacity to enroll students is comparatively less and so is their accessibility. It is also worth noting that even though there has been an increase in the number of both state and central institutions, enrollments have not risen in the same proportion. This leads to the conclusion that the additional capacity created through new institutions is not being optimally utilized. Therefore, along with the efforts for increasing access through new institutions, the existing capacities also must be fully exploited.

This difference between the growth of central and state institutions also causes disparities in access and equity. Despite the heavy burden of enrollments on state institutions, they have not grown at the same pace as the central institutions. Meanwhile, the vacuum has been filled by private colleges. Though private colleges

⁶⁶ XII Five Year Plan, Planning Commission, New Delhi, 2012

also increase access, the aims of equitable growth and quality enhancement are not necessarily fulfilled through them. Commercialization of education has already led to huge distortions in the educational landscape, both social as well as spatial. 80% of professional institutions are located in five states⁶⁷, and are mostly controlled by the private sector. Education priorities cannot be left to vagaries of market forces. Commercialization entails that quality education becomes synonymous with affordability. The goals of equity and inclusion, the fundamental pillars of policy making in any democracy, might be the first casualties if unbridled profit making is instituted as a norm for the educational institutions in the private sector.

The stark difference in growth rate and quality of central and state institutions is largely due to the lack of funds at the state level. As early as 1986, the National Education Policy⁶⁸, while dwelling upon the expansion of higher education, mentions the increasing support that the state will require from the Government of India in order to develop new institutions; and fund existing ones. Government spending on higher education has grown over the years however the growth has not been commensurate with the increase in enrollment and the rise in demand for better quality in education. The expenditure on public education institutions has fallen short of need and created the demand for private investment in education. Over the years, while the central funding has been increasing at an impressive rate, the state funding has not kept in pace with the central expenditure.

Kothari Commission was emphatic that most of the responsibility for the support of education should be on government funds and not on the private sector. The commission also argued against over dependence on private sector in education development. It stated, "It is undesirable to regard fees as a source of revenue. They are the most regressive form of taxation; fall more heavily on the poorer classes of society and act as an anti-egalitarian force." Kothari Commission found that the then existing levels of fee contributions were much higher in India than in the educationally advanced and richer counter such as US and UK. The Commission observed, "in the long run education to some extent is self-financing because the increased incomes generated by a relatively better educated labour force would provide resources for greater allocation to education...additional resource are generated through the process of economic growth." The commission also observed, "the education tends to augment the flow of national product, though with some time-lag..."

⁶⁷ Data collated from AICTE website

⁶⁸ National Policy on Education, 1986

Drawing from these reports, the Education Policy 1986, as modified in 1992, made a special mention of the immediate need for arresting the growing trend of commercialization of education. The CABE Committee on Higher Education funding, which submitted its report in 2005, stated- "... reduction in state funding for higher education, corresponding cost recovery measures and rapid growth in privatization of higher education – all begin to produce serious problems on access, quality, equity and efficiency in higher education."

Another aspect of funding is the central allocations to state institutions in comparison with central institutions. State system receives disproportionately small amounts of grants. The Yashpal Committee⁶⁹ pointed out it its report that even though state universities are a primary responsibility of the states, the development of students in both state and central institutions is a national responsibility and there cannot be any discrimination between the two.

In the last three plan periods there has been clear evidence of the difference between allocations made to central and state institutions. As illustrated in Figure 47 and 48, central institutions have been the main beneficiary of the grants. In the XI Plan this gap has widened further, the funds to states have only been one-sixth of those given to state institutions.

The dwindling support to state institutions can be a recipe for disaster and there is an immediate need to make the states realize this fact. In addition to the meager funding to state institutions, the states themselves do not spend an adequate proportion of the Gross State Domestic Product (GSDP) on higher education.

⁶⁹ Report of 'The Committee to Advise on Renovation and Rejuvenation of higher education", 2009



Figure 47 Funding (in crores) state vs. central institutions⁷⁰

Figure 48 Funding (in crores) state vs. central institutions 2011-12⁷¹



The average spend is about 0.5% of GSDP with figures as low as 0.14% for Maharashtra and Jharkhand (Figure 49, 50). The states of Uttar Pradesh, Jharkhand, and West Bengal have a very low GERs and very low % spends on higher education (as a % of GSDP). States such as Maharashtra and Tamil Nadu, which have higher institutional density but low or average spend on higher education, most likely have high degree of private participation in higher education. This again creates distortions in the state higher education systems. States such as Goa, Tamil Nadu, Andhra Pradesh, Kerala, Tripura and Mizoram have shown high per capita expenditure on higher education (Figure 50) with reasonable GERs as compared to national average. This may also be because these states have had a history of positive intervention in higher education. States such as Delhi, Pondicherry and others have a high GER, while other states such as Maharashtra have a good GER but a low expenditure on higher education.

⁷⁰ University Grants Commission, Annual Reports, 2007-12

⁷¹ University Grants Commission, Annual Report 2011-12





*Complete data on Daman Diu, Dadra Nagar Haveli, Andaman & Nicobar Islands and Lakshadweep not available





*Complete data on Daman Diu, Dadra Nagar Haveli, Andaman & Nicobar Islands and Lakshadweep not available

⁷² Refer to Annexure I: States at a Glance

⁷³ Refer to Annexure I: States at a Glance

Along with the low levels of investments in state higher education, the funding to state institutions and universities is currently done on an ad-hoc basis, is poorly coordinated, and plagued by excessive bureaucracy. Instead of receiving block grants from the States that facilitate better utilization of funds, institutions at times receive item-wise allocations that make it cumbersome to use all the funds. During the XI Plan (2007-12) a conscious attempt was made by the central government to improve the condition of state universities by making a dedicated allocation of Rs 22,891 crores through the UGC. However, out of it only Rs 7,652⁷⁴ crores was spent. This points to a lack of absorptive capacity of the state institutions as well as the cumbersome processes for the transfer and utilization of funds.

Not only are the funds meager; their reach is also very limited. This fact coupled with low levels of monitoring renders the financing completely ineffective. Under the current financing provisions, requisitions are made on a year-on-year need basis without a planned outlook or accountability regarding the use of funds. Lack of a cohesive vision and planned approach are leading to uncontrolled expansion of institutions in some areas while others continue to remain grossly underserved.

Given the limited finances the State Universities have (even after the addition of the allocations that state governments make for higher education), it is interesting to analyze the nature of expenditure made by them. According to the estimates of the Ministry of Statistics and Program Implementation (Annexure II), on an average, states only spend 10% of their total expenditure on capital works and 5% on other categories. The lion's share goes towards paying salaries of the employees of the higher education system. When the system is expanding and the crying need of the hour is to create additional capacity to absorb larger number of students, this abysmal allocation on plan and capital items must be looked at very critically. This points to the fact that state governments require additional support to improve and strengthen their faculty (given the faculty shortages that the state governments already face) before they can be expected to improve infrastructure and make other capital investments in capacity building.

Figure 51 illustrates the often emphasized point that over the last few years while there has been an increase in total expenditure in Higher Education, a disproportionately large part of this is in the non-plan sector and only a small proportion of this is in the plan expenditure. This is not an encouraging trend (even though there is a very small

⁷⁴XII Five Year Plan, Planning Commission, New Delhi, 2012
increase in plan expenditure). Therefore, future increase in investments in Higher Education should be more towards plan rather than non-plan support. Figure 52 indicates trend in plan and non-plan expenditure as a percentage of total expenditure over a three years period (2008-11). It can be observed that Total Expenditure is falling (with 2008-09 as a base year) in approximately the same proportion as Non-Plan Expenditure. Though a decrease in Non-Plan Expenditure is appreciated, a decrease in overall expenditure is not encouraging.



Figure 51 Trends in Plan and Non Plan Expenditure 2008-11⁷⁵ (Rs. in thousand)

Figure 52 Trends in Plan and Non Plan Expenditure 2008-11 (%)⁷⁶



⁷⁵Analysis of Budgeted Expenditure on Education 2008-09 to 2010-2011,

Ministry of Human Resource Development

⁷⁶ibid

An analysis of trends in Technical Education expenditure (2008-09 to 2010-11) clearly shows the encouraging trend in increasing in spending in technical education. Even more encouraging is the significant increase in Plan expenditure during this period, even while Non-Plan expenditure is still higher than Plan.





Figure 54 Trends in Plan and Non Plan Expenditure Technical Education (%)⁷⁸

A time series analysis of the three years (2008-09 to 2010-11) of plan and non-plan expenditure across various components (Figures 55, 56, 57, 58) indicates the following trends:

⁷⁷ Analysis of Budgeted Expenditure on Education 2008-09 to 2010-2011,

Ministry of Human Resource Development

⁷⁸ ibid

- 1. Expenditure on D&A shows Assam followed by Andhra Pradesh and Haryana are relatively large spenders compared to other states. Relatively small or less spending in this component should be encouraged. (Figure 55)
- 2. Support to Universities is reflected in Figure 56. It is encouraging to see Bihar followed by Andhra Pradesh as outlier states followed by West Bengal, Jharkhand and Karnataka as other states where relatively high support is seen for Universities. While increasing support to Universities is encouraging, it is desirable that such support be more in the form of Plan expenditure as compared to Non-Plan. Plan –Non Plan expenses for 2010-11 in the case of Andhra Pradesh demonstrates an encouraging trend of high Plan commitment over Non-Plan.
- 3. Figure 57 indicates support to Government Colleges. States such as Andhra Pradesh, Assam, Karnataka, Madhya Pradesh, Rajasthan and Tamil Nadu show encouraging support to Government Colleges. While most of the states spend significant sum in Non-Plan expenditure, Karnataka shows encouraging sign of increasing plan commitment over non-plan for 2010-11.
- 4. Figures 58 highlights the support to Non-Government colleges. As expected drawing from evidence that Maharashtra, Tamil Nadu and UP have a number of Private institutions, support to these is therefore not surprising. However, other states like Andhra Pradesh and West Bengal also have relatively high support to Non-Government College. Unfortunately, almost all high spending states in this space provide support to the non-plan expenditure with West Bengal being an outlier and showing some trends towards enhancing Plan support.



Figure 55 Plan and Non-plan Expenditure 2008-11⁷⁹ (Rs. in thousand)

Figure 56 Plan and Non-plan Expenditure 2008-11 – Assistance to Universities⁸⁰ (Rs. in thousand)



⁷⁹ Analysis of Budgeted Expenditure on Education 2008-09 to 2010-2011,

Ministry of Human Resource Development

⁸⁰ ibid



Figure 57 Plan and Non-plan Expenditure 2008-11 – Support to Govt. Colleges⁸¹ (Rs. in thousand)

Figure 58 Plan and Non-plan Expenditure 2008-11 – Support to Non-Govt. Colleges⁸² (Rs. in thousand)



⁸¹ Analysis of Budgeted Expenditure on Education 2008-09 to 2010-2011,

 $[\]begin{array}{c} \mbox{Ministry of Human Resource Development} \\ \mbox{82 ibid} \end{array}$



Figure 59 Plan and Non-plan Expenditure 2008-11 – Technical Education⁸³

⁸³ Analysis of Budgeted Expenditure on Education 2008-09 to 2010-2011, Ministry of Human Resource Development Figure 60 indicates the expenditure on higher education as a percentage of total spending in education by states. States such as Tamil Nadu, West Bengal, Uttar Pradesh, Karnataka and Goa show consistent increase in expenditure, while Gujarat, Jharkhand, Maharashtra, Madhya Pradesh show declining expenditure. Significant increase in percentage expenditure is noticed in case of Karnataka, Goa, Puducherry and Uttar Pradesh, while a steep decline is noticed in case of Punjab. States and UTs with high spending on Higher education also show a trend of increasing Non-Plan Expenditure as compared to Plan Expenditure.



Figure 60 Expenditure on Higher Education as a % of Total Expenditure 2008-11⁸⁴

⁸⁴ Analysis of Budgeted Expenditure on Education 2008-09 to 2010-2011, Ministry of Human Resource Development





⁸⁵ Analysis of Budgeted Expenditure on Education 2008-09 to 2010-2011, Ministry of Human Resource Development

Increase in expenditure in technical education as a percentage of education is noticed in states like Andhra Pradesh, West Bengal, Tamil Nadu, Karnataka and Bihar, while Punjab and Haryana show a decline in expenditure (Figure 61). In case of other states, there is inconsistent trend. Most states spend less than 3% of their total education budget on technical education. But unexpectedly, all the UTs spend reasonably high on technical education. Chandigarh, though reducing its expenditure every year, spends more than any other state in the country. Bihar, on the other hand, spends only 0.5% on technical education, lowest among all States and UTs, except Sikkim. Largely, States and UTs are decreasing their financial support to technical education with exceptions like Andhra Pradesh, Odisha, Uttarakhand, West Bengal, Tripura, Karnataka & Himachal Pradesh.

2.2 Planning and funding at state level

The present system of grant disbursement is archaic. The system that started in 1956 has continued unchanged till now. The grants are not given on any normative basis; they are scheme and project based. The need for a radical shift in funding criteria has been felt in an acute way. Funding needs to be made more norm-based and performance dependent. Instead of allocating funds on the basis of demands made by higher education institutions under specific schemes, normative and performance-linked funding would improve the performance of universities. Such funding would lead to better utilization of public funds and increase transparency and accountability within the system.

UGC, which is the primary fund allocating body to state institutions, is unable to fund new institutions or even fund all the existing ones since Section 12B of the UGC Act has to be followed. This creates a vicious cycle inhibiting the emergence of new institutions in states. Section 12B pre supposes all facilities and infrastructure to be in place before the funding by UGC begins. But the colleges and universities which lack such facilities are the ones which should be supported first. UGC was created when there were very few institutions of higher learning in the country. It has become virtually impossible for the UGC to manage and monitor fund disbursements to a large number of institutions. Today's need is to create a new system wherein the unit of planning is smaller than the whole country and a manageable number of entities are clubbed under one body. This would ensure proper planning and monitoring of funds and more target-oriented spending. A system-wide planning is required to foster synergies between the state and central spending. The large number of institutions and their wide variety necessitate the use of state as a unit of planning and coordination. State level planning would yield more focused solutions to the problems of access and equity, as these problems differ in nature and magnitude from one state to another. The central initiatives need to be in tandem with the state level plans for improving access, equity and quality. The National Policy on Education 1986⁸⁶ had emphasized about the creation of State Higher Education Councils for a similar purpose. Though the idea gained wide acceptability at that time, very few states actually went ahead to create these councils. In states where there are no such councils, the decisions about policy and planning are taken at level of bureaucrats or political executive, with no or little representation from academia. Consequently, the entire approach reeks of favoritism, ad-hoc decision making and myopic perspectives.

A comprehensive university reform program needs to be designed and implemented jointly by central and state governments for promoting strategic planning and recognizing performance at the university level. Such a program should address gaps at all levels, spatial, academic and infrastructural. It must take into account the quality gaps, institutions-industry linkages, skill provision and curricular up-gradation. It is, therefore, imperative for each state to prepare a comprehensive State Higher Education Perspective Plan, which will effectively assess the needs and requirements of state institutions for a better, equitable and balanced allocation of resources.

⁸⁶ National Policy on Education, 1986

International experience: Funding and Norms

Denmark

Funding is based on the number of students who pass an exam. Institutions receive 30% to 50% of their funding based on this indicator. For instance, universities receive around \$19,000 per completed bachelor degree graduate within higher technical education (which is classified as medium cost). The disadvantage of this indicator is that institutions may artificially increase pass rates of the exams to receive more funding. The model requires a strong quality assurance mechanism, professional standards among university staff, and/or other funding incentives.

France¹

Funding is based on the number of students enroled and 50% of the total budget for tertiary education is invested via formulabased funding. The advantage of the French model is that it is easy to track spending and funding allocation information. The funding criterion is also easy to understand for everyone. On the other hand, the disadvantage for this indicator is the weak incentives for universities to provide quality education and ensure efficiency by avoiding dropouts during the school year and delays in student completion.

Australia²

Australia uses performance indicators based on The Australian Graduate Survey (AGS), a national survey of newly qualified higher education. Graduate outcomes data forms a core component of a range of performance indicators that providing information on transition of students from study to the labor market. Indicators are designed around graduation rates, graduate destinations, learning outcomes, work readiness, teaching experience, teaching resources, institutional reputation, community engagement etc. Individual Universities sign "Compacts" with the government that include the institution's larger mission and vision and goals related to teaching, learning, targets of performance funding and research.

England³

The Higher Education Funding Council for England (HEFCE) distributes public money to universities and colleges. The recurrent funding is divided amongst teaching funding and research funding; non-recurrent funding is given for capital projects. The criterion for allotting the funding includes a mixture of the type of institution, number of students, the subjects taught and the amount and quality of research undertaken. Institutions receive most of their funding as a 'block grant'. They are free to spend this according to their own priorities within broad guidelines students.

¹ Planning Commission, NUEPA, World Bank Report on Higher Education, 2011

² Coates, H. Defining and monitoring academic standards in Australian higher education. Australian Council for Educational Research (ACER), 2010, as accessed on October 24th, 2012

³ Guide to Funding, Higher Education Funding Council for England, as accessed on October 24th, 2012

2.3 Academic and affiliation issues in state universities

Wide variations exist across and between state universities in terms of basic provisions, infrastructure and faculty. Fund shortage generally contributes to the unevenness in the quality of higher education in state universities. Apart from limited finances, state universities also have to grapple with bureaucratic processes, inefficient administration, lack of accountability, the burden of the affiliation system and political interferences.

University	Number of Colleges
Osmania University, Hyderabad, Andhra Pradesh	901
Pune University, Pune, Maharashtra	811
Rashtrasant Tukadoji Maharaj, Nagpur, Maharshtra	800
Rajasthan University, Jaipur, Rajasthan	735
Bangalore University, Karnataka	687
Mumbai University, Mumbai, Maharashtra	711
Tamil Nadu Teachers' Education University, Tamil Nadu	661
Gautam Buddha Technical University, Uttar Pradesh	614
Andhra University, Andhra Pradesh	614
Rajeev Gandhi Health Sciences University, Karnataka	560
M.L.C National Journalism & Communications, Madhya Pradesh	549
Kakatiya University, Andhra Pradesh	480
Jawaharlal Nehru Technological University, Andhra Pradesh	451
Maharishi Dayanand University, Haryana	448
Kurukshetra University, Haryana	435
Sant Gadge Baba University, Maharashtra	401
Dr. NTR Health Sciences University, Andhra Pradesh	400

Table 2 Universities with largest number of Affiliated Colleges⁸⁷

⁸⁷ University Grants Commission, 2012

Table 2 shows the twenty universities in the country with the largest number of affiliated colleges. Affiliated colleges are the mainstay of the higher education system in India. They enroll 89.3% of the undergraduate students, about 72.2% postgraduates and 20.6%⁸⁸ of doctoral students. From the perspective of the state university, affiliation system is a lucrative option of raising funds as it brings affiliation and examination fees. However, the rampant rise in number of colleges affiliated to universities has deteriorated the quality of higher education significantly. The active university resources and systems are diverted towards management and conduct of exams with consequent dilution of focus on academic quality and research. There is hardly any incentive for the affiliated colleges to undertake any meaningful quality improvement programme in teaching and research.

Map 2 Number of Affiliated Colleges



⁸⁸ University Grants Commission, Annual Report 2011-12

There are a number of weaknesses in the existing affiliation system. First, the relationship between state university and affiliated colleges is one of administration – affiliation, course recognition, syllabus prescription, and examination. The university departments as source of academic strengthening of college teachers, are generally very weak and unstructured. Secondly, since a typical affiliating university has to cater to hundreds of colleges, it cannot provide customized curricula to meet the local needs of colleges, but instead offers the same curriculum to all. The academic condition of affiliated colleges also prompts strong resistance to curriculum revision. The university departments and affiliated colleges are then reduced to common, minimal curriculum with no scope for improvement and innovation. One of the schemes of UGC, namely 'Autonomous Colleges' scheme does encourage colleges to acquire autonomous status, but there are systemic problems encountered, with the result that only about 414³⁹ colleges in the country have acquired that status so far.

In most Universities, the Board of Studies is an important structure, which looks at curriculum related issues. The composition of Board of Studies, therefore becomes very important since the course design and framework is its responsibility. Ideally, the Board of Studies should be different for undergraduate and postgraduate programs and institutions. However, in some of the affiliating universities, there is a single Board of Studies, which caters to both undergraduate and post-graduate programs offered by colleges and universities. For instance, in case of most universities in Maharashtra, there exists a single Board of Studies for designing and implementing curriculum changes in colleges and universities. Members of the Board of Studies are elected as per the provisions of the Maharashtra Public Universities Act and this sometimes results in undergraduate college faculty member chairing the Board of Studies, where a post-graduate faculty member from the university (or even the Chair of a department from the university) is a member and has limited say in the curriculum being designed for the University. As a consequence, faculty in the university departments have very little say in curriculum design and also setting up of exam papers.

In most affiliated colleges, faculty strength is inadequate and mostly filled with ad-hoc contract faculty. This does not facilitate quality enhancement and continuity. Teaching-learning facilities available at the affiliated colleges are inadequate with very limited access to current literature (books and journals etc). Hence the quality of education suffers further.

⁸⁹ University Grants Commission, Annual Report 2011-12

The affiliation model separates teaching from assessment and separates research from teaching. A teacher needs to use student assessment in order to adjust his or her teaching to the needs of students and to provide feedback to students on their performance; but the affiliation system dictates that the assessment be done away from the college. These features significantly reduce the accountability for results. The affiliation system also means that research is done in the university while teaching is done in the colleges, so the latest knowledge is not available to those teaching undergraduates, except through the laborious process of curriculum reform. In the same way, teachers of colleges are denied all opportunities of self- improvement and continuous upgradation, and access to resources and research facilities. Students coming through the affiliated colleges miss a whole lifetime of opportunity for all round personality development and access to good faculty, laboratories, land libraries and consequently lack both soft and applied skills. This naturally gets translated into lower levels of employability for affiliated college pass-outs.

The state university departments also lack capabilities and the wherewithal to support and strengthen the quality of the curriculum and teachers in affiliated colleges. Since university departments are short of faculty, having had no regular recruitment since a long time, they are forced to manage with minimum faculty i.e. a few seniors and the rest being contract faculty. Quality teaching and research is not possible in such a context.

Learning from other States¹

Maharashtra and West Bengal (Kumar, 2009)² have embarked on **comprehensive legislative reforms** in higher education. States such as Karnataka are devising strategies of addressing the affiliation model through a **single university dual system**.

Kerala, Andhra Pradesh, West Bengal have robust and effective buffer bodies - **State council for higher education** – to assist the states' higher education departments to re-think the role of the university.

Formation of Councils has been a less positive experience in Maharashtra, where the Council has not met for two years (Kumar, 2010)³. However, Dr.Anil Kakodkar, has recently recommended setting up of the Maharashtra State Council for Higher Education and Development (MAHED) as a standalone independent statutory body with appropriate and adequate autonomy.

¹ World Bank Report on Reforms in Higher Education, Madhya Pradesh, 2012

² Kumar, B.V., Governance Reforms in State Universities. Economic & Political Weekly, 2009

³ Kumar, B.V., Implementation of the Maharashtra University Act, Economic & Political Weekly, 2009

Finally, the lack of mobility, and the differentials in salary, retirement age and benefits between affiliated colleges and state universities on the one hand and centrally funded universities and booming private sector institutions on the other, are drawing out the best faculty from state universities. In such an academic environment, the economically blessed and brighter students enroll, in central universities and private institutions leaving a large mass of students from rural, tribal and underprivileged communities to enroll in state universities (Kumar & S.Parasuraman, 2011)⁹⁰. Thus, the present system tends to perpetuate inequities instead of reducing them and the affiliated colleges (public) stand at the bottom of this academic caste hierarchy. This condition is not conducive to producing high quality students capable of contributing to scientific, economic and social development. A key element of State Higher Education reform, therefore, must be to address the affiliation system as a whole and quality of higher education in affiliated colleges, in particular.

The Yashpal Committee⁹¹ report talks about the urgent need for improving the condition and quality of affiliated institutions as they contain the bulk of enrollments. It is pointed out that good affiliated colleges sometimes suffer due to the bureaucracy at the university level while some good universities suffer because of the limited vision of their affiliated colleges and their inability to accept change. The committee suggested that better colleges be allowed to function separately from the university to 'lighten the load' of the university in general administrative and examination work for colleges.

The National Knowledge Commission⁹² recommended reforms in the system of affiliated undergraduate colleges. It put forth the ideas of creating department-based universities and giving greater autonomy to existing colleges. As a part of his report on higher education submitted on behalf of the National Knowledge Commission, Sam Pitroda argued for higher education reforms, adoption of the course credit system, decentralization of the examination system, and internal assessments as well as criteria-based resource allocation for strategic growth in higher education. Another important suggestion was the setting up boards of undergraduate education in order to control quality, conduct examinations and reduce the administrative burden of universities with respect to affiliated colleges.

- ⁹¹ Report of 'The Committee to Advise on Renovation and Rejuvenation of higher education", 2009
- 92 National Knowledge Commission Report, 2007

⁹⁰ Kumar, B. V. & Parsuraman, S. Devising Strategies for 12th Plan, Improving Financing and Governance of State Universities, Tata Institute of Social Sciences, 2011

There can be multiple ways of improving the affiliation system. The first option is to reduce the total number of affiliated colleges by encouraging the better performing colleges to become autonomous. The better performing affiliated colleges could be encouraged, with additional support as necessary, to become approved as autonomous by the University Grants Commission. By becoming 'autonomous', a college would gain academic autonomy – and so become responsible for curriculum and assessment aspects – as well as administrative autonomy over its budget, and also becoming eligible to receive funds directly from UGC. An autonomous college must be encouraged to develop into universities. As of March 2012, there were about 414 ⁹³ autonomous colleges in the country; such colleges can be groomed over time into universities that share resources and expertise with the colleges surrounding them. A good example of the same is the Presidency College, Kolkata that was granted University status.

The bigger task however is to improve the quality of education provided in the larger number of colleges. One option is to establish a specific unit of the proposed State Higher Education Councils or the affiliating university to monitor and build capacity in these colleges. Similarly, it would be possible to establish one university exclusively for affiliations, (or a Dual Model for a few universities akin to the case that is being proposed in Karnataka) with the remaining becoming exclusively teaching/research institutions. However, such initiatives should not defeat the very concept of university, as laid down by the Radhakrishnan Commission.

One of the other models of managing the problem of affiliation is to have the university divided into several campuses with each campus having colleges in its vicinity affiliated to it. This model is being currently discussed in Maharashtra in the case of the University of Mumbai. Such a model would help in ensuring that colleges are regularly monitored for quality. A possible suggestion that the more advanced colleges "mentor" the newer ones could also be examined by the states.

As noted above, a key constraint on the reform of the affiliation system is that affiliating universities receive a significant proportion of their revenues from affiliated colleges. It therefore implies that the issue of financing of state universities must also be considered alongside structural reforms.

⁹³ Annual Report 2011, University Grants Commission

2.4 Governance issues in state universities

There have been many concerns regarding the internal governance and administration of universities. There are multiple points of influence of external agencies on internal bodies of the universities, especially in the universities' Executive Council and the Finance Committee. The Chancellor or representatives of the state government nominate the external representatives who undermine the administrative power of the Vice Chancellor in two critical bodies, namely the Executive Council and the Finance Committee, thus hindering the smooth functioning of the university. Furthermore, this situation it creates multiple points where consensus between the external stakeholders (Chancellor and government) needs to be reached.

Different states and central government follow different patterns for the selection of Vice Chancellors, which require some deliberation. How a university, especially a new one, evolves and grows is dependent upon the leadership and vision of person who heads it. Hence the importance of the role of the first Vice Chancellor of the university cannot be overemphasized. Also, subsequent appointments need to be made with great care, through the use of appropriate and fair search methods by credible people. It is therefore imperative that prescribed procedures in these matters are adhered to, in order to ensure transparency and selection of deserving candidates. The selection of Vice Chancellors should be a process in which there should be least political interference, if not nil. But the trend in some of the states is quite disturbing, wherein the selection of VCs is made on the basis of considerations other than purely of merit and leadership qualities.

The higher education sector is greatly in need of professionals to manage the administrative affairs of universities and institutions. Like the health sector, which has the professional cadre of hospital management and administration, there is a need to develop professionals for the higher education sector also. Given the heavy involvement of the government in the sector, the option of outsourcing certain functions needs to be explored. However, it is time to look at the option of bringing in specialized agencies to undertake functions that are not the core functions of higher educational institutions. Academic leadership is another area of deficiency; there are not enough number of academicians who have been groomed to take positions of leadership in institutions. Academic Staff Colleges in states may have to be rejuvenated and strengthened to bridge this gap.

Autonomy must also simultaneously inculcate a greater sense of responsibility and accountability. This can only be ensured if institutional and systemic reforms are carried out within the university system. Therefore, while minimizing external influences on university governance, the internal process and mechanisms need to be made more democratic and transparent. Students, faculty and even non-teaching staff, parents etc., must become partners and participants in the decision-making processes. The need of the hour is to adopt a systematic and well-calibrated program, which encourages competition amongst institutions for excellence and prestige.

2.5 Autonomy of state universities

There are generally three main forms of autonomy: academic, financial and administrative. While the universities currently have some level of administrative autonomy, there is a need to devolve more authority to the universities in the areas of academic instruction, finance and human resources. For example, the universities should be recognized as experts in academic matters and be given the authority to take all academic decisions including those regarding curriculum and examinations. In the areas of finance, the universities could be given autonomy to manage their own budgets (including sourcing their own funds) and authorization be subjected to well-defined audit and reporting parameters. In the areas of human resources, it is proposed that universities should be allowed to select and recruit their own staff (both academic and non-academic). This would give the universities more flexibility and enhances their effectiveness and competitiveness; leading to an overall improvement in the quality of education.

In essence, it can be said that reforms in the entire state higher education sector are long over-due and any further delay can only exacerbate the glaring inefficiencies in the functioning of state institutions and derail the entire process of transformation of the state higher education sector. The new scheme is designed to spur the states to undertaken all these reforms in a holistic manner.

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Rationale for Strategic Intervention

The success of Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) has led to greater demand for higher education. The discussions in the previous sections regarding the condition of state higher education institutions, their importance in the higher education system and the limitation of UGC point towards the need to undertake strategic interventions for the improvement of higher education with respect to state higher education institutions. There is a need to establish a new institutional mechanism, which makes every stakeholder a partner in the process of higher education transformation.

The current method of funding state universities and colleges through the UGC route needs to be reviewed. While the state governments feel that the money directly flows to universities and college without the knowledge of the states (therefore they have no reasons to monitor them), the universities and colleges feel that very often the procedural bottlenecks and red-tapism lead to enormous delay in the disbursement of funds and resultant under-utilization of resources at the institutional level. By and large there also been an issue of a lack of absorptive capacity at the institutional level, which often results in the resources not being utilized completely. Thus, there is a need for a scheme that focuses on and incentivizes governance reforms, propels re-engineering and related issues at the state and institutional level. There are multiple mechanisms in extant

schemes that have been looked at as models for improving the funding and monitoring processes (such as the Pradhan Mantry Gram Sadak Yojana, National Rural Health Mission and other Centrally Sponsored Schemes models), the financial devolution scheme⁹⁴ and the three tiered outcome quality monitoring method which will help in improving control and reducing transaction costs. RUSA is sought to be implemented through a set of bodies with clearly defined roles and functions at the national, state and institutional level.

UGC can only fund those higher educational institutions, which are 2(f) and 12B compliant. As of 31st March 2012, the higher education sector consisted of 574 universities and 35539 central/state/private colleges. 214 Universities of these are not covered under Section 12B of UGC Act and only 6,787 colleges are eligible for central grants under 12B and 2(f)⁹⁵ (Figure 62).





⁹⁴ XII Finance Commission

⁹⁵ University Grants Commission Annual Report, 2011-12

Out of the 286 State universities, only 182 State universities are eligible for central assistance. That leaves a significant number of colleges and universities not eligible for UGC grants. A new scheme is really needed to ensure that all publicly funded colleges and universities must receive the requisite state and central support in order to reach critical levels of efficiency and infrastructure.



Figure 62 Coverage of colleges and universities by UGC

Unfortunately many of the institutions in the non-12B and 2(f) category are devoid of any resources from the UGC. This makes them financially crippled despite the fact that many of them contribute significantly to the triad objectives of access, equity and excellence. Any support to this set of non-12B and non-2(f) institutions will require a change in the statutory provisions of the UGC Act, in order to make them eligible for UGC grants. Such a process is time consuming since it is legislative in nature. With the XII Plan already in operation, it is desirable that support to the entire State University system may be provided through this proposed new mission mode project, while a long term solution would be to reform the statutory regulatory bodies at the national level.

Map 4 State Universities (Government) which are not eligible for Central Assistance under Section 12B of the UGC Act, 1956: As on 31.03.2012



The XII Plan document also underlines the need to provide significantly more central funding to State higher education. The Plan document states as follows:-

"There will be a strategic shift in the manner in which State universities and colleges, which account for 40% enrolment, will be funded and supported by the Central Government. In place of central funds directly or via the UGC for individual universities and colleges across different States, central funding would be done for the States higher education system as a whole. This is essential for four reasons. First, the circumstances and level of development of higher education varies widely across the states. Due to this variance, different States require different types of interventions and support. Second, the Indian higher education is now too big for effective planning and coordination, State higher education systems are more manageable units. Third, it is seen that mobility of students across the States is minimal except for top-tier institutions that attract students from all over the country or North-eastern region, where students in large numbers move out for higher studies. Finally, limited central funding could be strategically used as a powerful tool for change in chosen matters and central funding could stimulate competition between states. Thus, the States are effective units for planned and coordinated development of higher education.

The central funding would be used to induce the States to increase government spending on higher education. States would be encouraged to fill up large teacher vacancies in the state institutions. This would be used to reduce gaps in higher educational attainments; create enabling environment to undertake academic and governance reforms which includes reforming affiliating college system to promote quality and excellence, promote clustering approach, make provision for common facilities for institutions. The plan should specifically address the problem of faculty shortages and create enabling environment for upgrading the curricula and promoting innovative pedagogic practices. This plan should lay foundation for high quality state universities and colleges based on performance linked competitive grants. Such a plan should take a holistic view and take within its purview central as well as private institutions, so that all three segments of higher education within the state can develop to bring about quantifiable change. By encouraging private investment including publicprivate partnerships, encouraging norms- based funding and internal resources generation, the plan should build on a financially viable model.

Central funding should be based on 'State Higher Education Plans' prepare by the State Government (involving the State Council for Higher Education). The State must present their plans that encompass the different segments of

their tertiary education, including private education. The funding may be done through RUSA. This should have a clear focus on 'Triple Es' – Expansion, Equity and Excellence through academic and governance reforms."⁹⁶

The B. K. Chaturvedi Committee constituted by the Planning Commission had recommended amalgamating the plethora of Centrally Sponsored Schemes (CSSs) presently running concurrently in order to harmonize the objectives and also to achieve economies of scale. It had recommended the integration, also keeping in mind the fact that different institutional structure and administrative set-ups were being created, which at times led to parallel schemes aiming at similar objectives. The recommendations of this committee have now been accepted. Among the recommendations made, an important element has been to provide for 10 % flexi funds and flexibility in norms at the State level. Further, it also recommends two tier funding pattern (65:35 for other states and 90:10 for North eastern states, Sikkim, J&K, Uttarkhand and Himachal Pradesh). Hence, the Planning Commission requested administrative ministries including the Ministry of Human Resource Development to examine the possibility of amalgamating different CSSs catering to similar objectives and adhering to these recommendations. It may be pertinent to note that the restricted CSS - (Rashtriya Uchhatar Shiksha Abhiyan, which figures as one of the CSS during the 12th Plan, among others), has received the cabinet approval recently. RUSA, the new CSS discussed in the subsequent section, will be an instrument to harmonize national programs for funding State Universities and colleges through a single over-arching umbrella scheme in CSS architecture.

Further, the current provision as per the law does not allow UGC to fund State governments or bodies created by them, except educational institutions. The number of higher education institutions has increased significantly and today, from 30 Universities in 1950-51 to 574 universities in 2011-12 (700 as of June, 2013) and 30 colleges in 1950-51 to 35,539 colleges 2011-12⁹⁷. Given that many State governments have been advocating the need for their greater involvement in the process of monitoring the functioning and performance of State Universities and colleges, it may be advisable to route the resources through a state mechanism for effective monitoring and implementation. This also makes eminent management sense, since managing such a large higher education system in two-tier mode is a near impossible proposition. It is now imperative for the central higher education strategy to make states equal partners in planning and monitoring.

⁹⁶ XII Five Year Plan, Planning Commission, 2012

⁹⁷ University Grants Commission, Higher Education at a Glance, February 2012





UGC also gives grants under schemes; currently it has about 62⁹⁸ schemes meant for higher education institutions. Dealing with so many institutions through multiple schemes is a management challenge, leading to underutilization of funds. The operationalization of the new scheme would be in a manner that streamlines and harmonizes with the activities

⁹⁸ http://www.ugc.ac.in/page/XI-Plan-Guidelines.aspx#univb as accessed on September 28th, 2012

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of the UGC. The institutional framework needs to be structured in order to ensure that the UGC's role is not undermined, but rather the UGC is made an equal partner in the entire process. Therefore UGC's role in the new CSS has been clearly defined and institutionalized.

Affiliation and governance reforms in State Universities have emerged as urgent requirements for the improvement of quality in higher education. So has the belief that for better utilization of funds, the funds must be linked to measurable performance indicators. The current system does not allow this sort of incentivization to institutions or states which requires them to carry out some base line reforms and follow best practices in order to be eligible to access at least part of the central funds. This is a feature of some recent CSSs like Jawaharlal Nehru National Urban Renewal Mission (JnNURM), and has been adopted as an integral part of RUSA.

Strategic Shift in central funding for State Higher Education

- Enable a systemic view and benefit from synergy in spending by the central and state government
- Based on comprehensive State Higher Education plans that uses interconnected strategy to address issues of access, equity and excellence together
- Linked to academic, administrative and financial reforms of State Higher Education
- Planned expansion linked to the demand from the school sector on one hand and the needs from the economy and society on the other

As mentioned earlier, the growth of degree granting institutions in the States' public sector has been only one-third of the same growth in centrally funded institutions. One reason could be that states are not getting any support from the UGC for setting up new institutions: consequently there is no incentive to allocate resources and plan for new public funded institutions. The CSS on incentivization was precisely meant to address this lacuna. However, it could not be sanctioned in the XI Plan since the Planning Commission felt that this scheme should be launched as an umbrella CSS under the XII Plan.

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Keeping in view the recommendations of the Planning Commission, the need for reforms in the state higher education sector, using central funds in a strategic manner to ensure holistic planning at the state level and enhancement of allocations for state institutions, a new Centrally Sponsored Scheme is proposed. The scheme would be spread over the two plan periods (XII and XIII), and would be an over arching scheme for funding the State Universities and colleges in order to achieve the aims of equity, access and excellence. This scheme is called the Rashtriya Uchchatar Shiksha Abhiyan (RUSA). The scheme has the following salient features:

- It is an umbrella scheme to be perated in mission mode project that would subsume other existing schemes in the sector.
- The central funding would flow from MHRD to institutions, through the State budget.
- The funding to states would be made on the basis of critical appraisal of State Plans for Higher Education Plans (SHEPs). The plans would describe each state's strategy to address issues of equity, access and excellence in higher education.
- All funding under the RUSA would be norm based and future grants would be outcome dependent. Commitment to certain academic, administrative and governance reforms will be a precondition for receiving funding under RUSA.

Centre-state funding for the scheme will be in the ratio of 90:10 for North-Eastern States, Sikkim, J&K, Himachal Pradesh and Uttarakhand and 65:35 for other States and UTs. Funding will be available to even private-aided institutions, subject to their duration of existence, for permitted activities (not all) based on certain norms and parameters, in a ratio of 50:50.

4.1 Goal

The objectives of RUSA would be to achieve the target of GER of 32% by the end of XIII Plan, which the central Government has set for itself. Government of India aims to improve the quality of State Universities and colleges and enhance their existing capacities so that they become dynamic, demand-driven, quality conscious, efficient and forward looking and responsive to rapid economic and technological developments occurring at the local, state, national and international levels. The salient objectives of the scheme can be enumerated as follows:

- Improve the overall quality of existing state institutions by ensuring that all institutions conform to prescribed norms and standards and adopt accreditation as a mandatory quality assurance framework.
- Usher transformative reforms in the state higher education system by creating a facilitating institutional structure for planning and monitoring at the state level, promoting autonomy in State Universities and improving governance in institutions.
- Ensure academic and examination reforms in the higher educational institutions.
- Enable conversion of some of the universities into research universities at par with the best in the world.
- Create opportunities for states to undertake reforms in the affiliation system in order to ensure that the reforms and resource requirements of affiliated colleges are adequately met.
- Ensure adequate availability of quality faculty in all higher educational institutions and ensure capacity building at all levels of employment.
- Create an enabling atmosphere in the higher educational institutions to devote themselves to research and innovations.
- Expand the institutional base by creating additional capacity in existing institutions and establishing new institutions, in order to achieve enrolment targets.
- Correct regional imbalances in access to higher education by facilitating access to high quality institutions in urban & semi-urban areas, creating opportunities for students from rural areas to get access to better quality institutions and setting up institutions in un-served & underserved areas.

• Improve equity in higher education by providing adequate opportunities of higher education to SC/STs and socially and educationally backward classes; promote inclusion of women, minorities, and differently abled persons.

4.2 Scope

All State Universities and colleges (both 12B and 2(f) compliant and non-12B and non-2(f)) from all states and Union Territories (UTs) across the country would be eligible to be covered under RUSA. Subject to eligibility, an estimated 306 state universities and 8500⁹⁹ colleges will be covered under this initiative to improve the learning outcomes and employability of graduates and to scale-up research, development and innovations. The project will also support these institutions to improve their policy, academic and management practices. While public funded colleges and universities would be eligible for all the components, the private aided colleges would be entitled to some components (including infrastructure support) but the funding ratio would be 50:50. Funding to such colleges would be decided based on their antiquity and relevance. Funds would be provided both for infrastructure and quality improvement. Each institution will have to prepare a perspective plan(Institutional Development Plan) for all the components, which will be then aggregated at the state level, after imposing a super layer of state relevant components.

The project would also enable and empower the states to develop sufficient capabilities to plan, implement and monitor initiatives for the higher education sector as a whole. Each state must undertake a Baseline Survey (as illustrated in the Institutional Development Plan and State Higher Education Plan templates) followed by the preparation of State Higher Education Plans, which would be further broken down into annual plans. These annual plans will constitute the basis for determining the funding to states. The plans would have mainly two components, state component and institutional plans (aggregated). RUSA will support the states to create new systems and processes.

4.3 Approach

RUSA will fund the institutions under a few key components. The yardstick for deciding the quantum of funds for the states and institution will be the norms that will reflect

⁹⁹ University Grants Commission Annual Report, 2011-2012, New Delhi

the key result areas (access, equity and excellence). The State Higher Education Plans will capture the current position of the states and institutions on the basis of these norms as well as the targets that need to be achieved. The State Higher Education Council (SHEC) (discussed in following sections) will undertake this process of planning and evaluation, in addition to other monitoring and capacity building functions. The State Higher Education Councils will be the key institution at the state level to channelize resources to the institutions from the state budget.

In order to realize the intended outcomes, certain a priori commitments towards reform process have to be made by the states. These conditions will be non-negotiable prerequisites, i.e., commitments made by the states as well as institutions, for them to become eligible for funding under RUSA. These prerequisites include academic, sectoral and institutional governance reforms, creation of State Higher Education Councils, funding commitments by states, filling faculty positions (or a commitment to do so within a fixed time frame) etc. Under the scheme an initial, preparatory amount will also be provided to the state government to prepare them for complying with the a-priori requirements will be required to indicate their interest to participate in RUSA. This will allow then to receive the preparatory amount to undertake all required activities as a part of the a priori commitments. Once eligible for funding under RUSA after fulfilling these prerequisite, the states will receive funds based on their SHEPs limited to the resource envelope for the state under RUSA to be decided by the PAB. Future funds flows would be determined based on outcomes and achievements against the targets. The emphasis would be not only on physical output, but also on the intended outcomes.

4.4 Strategic Focus of RUSA

Strategic funding of state institutions must ensure that the issues of quality and access are addressed in an equitable manner. This would entail encouraging the states to prepare State Higher Education Plan duly keeping the following aspects in mind:

- Spatial and regional planning after due mapping
- · Programme and discipline planning
- · Mandatory accreditation and quality improvement
- Reforms governance and academic
- Infrastructure saturation
- Review of the affiliation system
- · Transparent and norm-based funding

- Outcome-based reimbursements
- Faculty planning
- Equity interventions
- Focus on research and innovation

4.5 Strategy

The project will be implemented through the Ministry of Human Resource Development (MHRD) of the Government of India as a "Centrally Sponsored Scheme" with matching contribution from the state governments and Union Territories (UTs). Since a five year time frame may not be adequate for such an ambitious project, the project will be spread over two plan periods of XII and XIII Plans. MHRD and states will share the project cost. Project cost in the public funded institutions (12B and 2(f) as well as non 12B and non 2(f)) for all sub-components will be shared between the Central Government and state governments in the ratio of 90:10 for North-Eastern States, Sikkim, J&K, Himachal Pradesh and Uttarakhand and 65:35 for Other States and UTs. Funding will also be provided for private-aided institutions, for permitted activities based on certain norms and parameters, in a ratio of 50:50. The states would be free to mobilize private sector participation (including donations and philanthropic grants) through innovative means, limited to a ceiling of 50% of the state share. The ceiling is imposed to motivate increase in states spend and investment in higher education sector.

A set of eligibility criteria for states will be enforced to achieve a high and sustained impact of the project. The criteria will seek to give the states and project institutions adequate decision-making powers that will enable and encourage them to deliver quality education and undertake research and innovation in an efficient manner. The primary endeavor is to transform the governments' traditional role of inputcontrol into a role of focusing on outcomes, and incentivizing improvements in higher education.





The project will require the project institutions to implement academic and nonacademic reforms for their self-conceived development programmes that focus on quality and relevance, excellence, resource mobilization, greater institutional autonomy with accountability, research and equity.

The project will lay major emphasis on monitoring and evaluation. The primary responsibility of monitoring will lie with the institutions themselves. The management structure at the institutional level i.e. the Board of Governors (BoG) will monitor the progress of institutional projects on a regular basis and provide guidance for improving the performance of the institutions in project implementation. The information from project institutions will be collected through a scalable web-based Management Information System (MIS). State governments will also regularly monitor and evaluate the progress of institutions. The Project Appraisal Board (PAB) at the national level in MHRD will review the project annually. The monitoring will be based on action plans prepared by each project institution and achievements made with respect to a set of

norms, which are defined in the Institutional Development Plans. The monitoring will focus on implementation of reforms by institutions, achievements in project activities under different components, procurement of resources and services, utilization of financial allocations and achievements in faculty and staff development and management development activities.

4.6 Components of RUSA

RUSA is envisaged as a prime vehicle for strategic funding of state institutions so as to ensure that issues of access, equity and quality are addressed in an equitable manner with the state as a composite unit of planning. The following are the primary components of RUSA that capture the key action and funding areas that must be pursued for the fulfillment of the targets:

- 1. New Universities
- 2. Up gradation of existing autonomous colleges to Universities
- 3. Conversion of colleges to Cluster Universities
- 4. Infrastructure grants to Universities
- 5. New Model Colleges (General)
- 6. Upgradation of existing degree colleges to model colleges
- 7. New Colleges (Professional)
- 8. Infrastructure grants to colleges
- 9. Research, innovation and quality improvement
- 10. Equity initiatives
- 11. Faculty Recruitment Support
- 12. Faculty improvements
- 13. Research Universities
- 14. Vocationalisation of Higher Education
- 15. Leadership Development of Educational Administrators
- 16. Institutional restructuring & reforms
- 17. Capacity building & preparation, Data collection & planning
- 18. Management Information System

The objectives of RUSA would be achieved through need based and customized equity interventions, quality improvement programs, and obtain mandatory accreditation. Faculty issues would be addressed through creation of new posts, filling of existing posts by full time faculty and faculty improvement programmes.

Equity interventions are being built into the scheme rather than as standalone, low impact interventions. The following components would address the equity issues in a more holistic and integrated manner, thereby making a significant impact on the enrolment of deprived and marginalized sections:

- · Girls hostels and girls toilets
- New hostels wherein 50% of capacity would be used for SC/ST and socially and educationally backward classes
- Converting existing buildings into fully disabled friendly environments (e.g. providing ramps, tactile pathways)
- Special facilities/equipment's for the disabled (e.g computers, lab equipments)
- Model Colleges in each district
- Special innovative programmes for focus groups and ODL strategies

4.7 Guiding Principles of RUSA

RUSA is structured on certain inviolable guiding principles. These tenets constitute the foundational premise and all the decisions taken under the scheme must be guided by them. It is necessary to list these principles clearly at the outset so as to ensure that this scheme does not degenerate into some kind of infrastructure support scheme. The states are expected to keep these principles as guiding posts while formulating their State Higher Education Plans and developing their strategies.

4.7.1 Performance based outlays and outcome based reimbursements

The cornerstone around which RUSA is designed is that the states and state institutions will be funded on the basis of their performance against mutually agreed targets to between the states and the center. The funds given to a state will be linked with the outcomes it can achieve in the higher education sector. These results and parameters of performance will be defined through norms that will focus on key areas of equity, access and excellence.

4.7.2 Incentivizing and disincentivizing

RUSA will also be using the principles of incentivizing desirable actions of states and institutions and dis-incentivizing undesirable actions. Not only will compliance to rules, regulations and fulfillment of norms be supported by incentives, non-performance
or non-fulfillment of prerequisites and norms will invite sanctions/penalties/reduced allocations for states and institutions. This is intended to make these scheme not only demand driven, but also competitive. The states and institutions will be encouraged to compete with each other in order to reap benefits of competition based formulaic grants.

4.7.3 Apolitical decision-making

Another basic tenet of RUSA is that the decision-making regarding the centre's allocations to various states will be done in an unbiased, apolitical and professional manner, on the basis of the SHEPs and the performance of states on the predefined parameters. The process of decision-making and its result will be transparent and the methods of decision-making will be impartial. It is expected that states will also be as unbiased, apolitical and professional while planning and ushering governance reforms at the state level. In order to effectively implement these reforms the selection of leadership positions in state universities should take into account the imperatives of merit and performance alone and be divorced from the ad-hoc, politically expedient decisions.

4.7.4 Disclosure based governance

Disclosure based governance must be followed not just by the RUSA authority but also by the State Higher Education Councils and the institutions that come under it in terms of its decision and outcome achievements. RUSA envisages a higher education system that has a greater participation of all stakeholders, where the institutions are responsible for their quality not just to the regulatory authorities but also to the students, parents and the society. A policy of full disclosure and clean governance are the first steps towards establishing such a system of higher education. This policy alone can curb the growing ill effects of crass commercialization in the educational sphere.

4.7.5 Autonomy

Autonomy is the sine qua non for quality and accountability. The Radhakrishnan Commission, Kothari Commission, National Knowledge Commission and Yash Pal Committee have all stressed the need for universities to be autonomous entities. RUSA will aim to operate in such a way that greater autonomy of institutions and states in terms of decision-making is facilitated. The states and institutions are expected to be guided by the principles laid down under RUSA and to achieve the objectives of greater equity, access and excellence. The day-to-day functioning as well as the approach they adopt to achieve these goals will be decided by the states and institutions. This principle is of special importance as it also applies to the relation between states and the institutions. Institutions of higher learning such as universities and colleges must be given greater autonomy, accompanied by accountability measures, for the creation of more dynamic, agile and goal-oriented institutions. This scheme is unique in the sense that it does not lay down any prescriptions, and only lays down the goals and objectives. The states and institutions will have full liberty to plan specific interventions depending on their special needs and requirements.

The issue of autonomy is crucial to the growth and development of higher education. Autonomy has been a subject of discourse in the reports of the Commissions and Committees set up from time to time, since our independence, to review the system of education and to initiate the much needed reforms and innovations. These reports not only reveal expression of sensitivity towards the erosion of the principle of autonomy in academic institutions but also draw attention to the overall environment of lack of accountability in the higher education system in the country. It is acknowledged that there is an interesting interplay between the issues relating to autonomy and accountability and it is not easy to separate the two.

However RUSA would strive to find a balance between the two since both principles are essential to enable an institution to grow and develop and achieve excellence but in a clear and transparent manner with adequate protection of the interests of students and faculty.

The higher education system in India covers a wide spectrum of institutions. On the one end, we have premier educational institutions like the Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs) and old and established Central Universities and State Universities, on the other hand, we have some universities established in the private sector which are in their formative years. The issues of autonomy and accountability relating to all these institutions ought to conform to the same set of norms which are essentially required for achieving intellectual excellence in the growth and development of knowledge.

The principle of autonomy broadly emphasizes the freedom of each institution to function in order to achieve academic excellence and to administer the institution

through its own rules and regulations. University autonomy should percolate down to the various organs of the university system. University autonomy in the present context is not absolute, as universities have to function within the regulatory framework enforced by government. The Acts of Parliament or State legislature under which these Universities are established, sets the limits of their autonomy. The objectives, functions, governance structures and powers of different functionaries and bodies are enunciated in the Act itself which limits the scope of autonomy to function in the absolute sense. This may call for revisiting the university Acts to provide for autonomy in the various facets of university functioning.

The autonomy of a university cannot be and should not be delinked from its accountability. A university is accountable to, and for the future of the students, and the future of the country. At another level, the university also has to be accountable for the generation of new knowledge and establishment of truth. The institution has to put in place appropriate mechanisms to ensure enforcement of the norms of accountability. Each university is under obligation to discharge the responsibilities entrusted to it and use the resources provided in a responsible and transparent manner to ensure the delivery of outcomes of the tasks undertaken.

Institutional autonomy should principally lie in the following fields: selection of students, appointment and promotion of teachers, determination of courses of study, pedagogy, assessment, areas of research and use of resources. Appointment and promotion of teachers should be based on a nationally determined transparent set of criteria, associating persons of eminence with the process of selection. Determination of courses of study, methods of teaching, and the implementation of evaluation procedures are best left to the academic expertise of the universities. Identification of areas and problems of research, which can elevate the status of basic and fundamental research, should lead to the solution of critical problems of concern to the nation. The resources of the universities should be suitably apportioned among the prioritized areas of study identified by the university itself.

Any uniform prescription for admissions applied to all universities in such a vast country as ours is likely to put them in difficulty. Though the Centre may evolve a national system of entrance examination for various common programmes, the individual universities may be given a free hand to join such a system or to conduct their own entrance examinations. The universities may, however, reserve the right to join any national system of entrance examination as and when it evolves.

4.7.5.1 Levels of University Autonomy

- Administrative: The levels of autonomy in the higher education system spans institutional administration, including the Vice-Chancellor, Registrar, Finance Officer, Controller of Examination, Governing Bodies of the University, Departments of the University, teachers and students. Universities should not become administration or administrator oriented. The principal function of the administration is to serve the academic interests of the university. Universities should be visualized as an integrated community in which the teachers are, as it were, 'senior scholars', the students 'junior scholars' and the administration is a service agency to both. There is too much centralization in the process of decision making in the universities. The governance structures should be such as are conducive to the preservation of autonomy. They should have enough space for consensus building on the basis of discussion and debate. The focus should be to develop conventions that would largely shift the centre of gravity of authority to the academic wings of the university's governance. The Academic Council should be the final authority in all academic matters. The tendency to attach importance to certain ideas and proposals merely because they emanate from persons who happen to hold important positions is unhealthy and particularly out of place in the university system where ideas and proposals must be judged objectively and on their intrinsic merit.
- Academic: The departments of a university are its main operational units on the academic side; wider administrative and financial powers should be delegated to them. Good teaching departments could be considered for being granted the status of Autonomous Departments within the university set up. Such departments should enjoy academic autonomy within the universities.
- **Faculty:** The linchpin of the university autonomy is the teacher; he/she is the pivot on which the excellence of the institution will depend. His/her academic freedom coupled with accountability for the concerns of truth and the generation of new knowledge have to remain paramount in the system of higher education. His/her role is not just to execute the dictates of the higher authorities but also to make his/her personal intellectual contributions to the advancement of the goals and concerns for which the universities stand. It is evident that there is low involvement of faculty and also students in most policy decisions.

Students: The Education Commission, 1964-66 stated that the students should be encouraged to take part in institutional governance and guided to make them realize their responsibilities in the day to day functioning of the institution. Representatives of the student community should be associated with Academic Councils and all other statutory bodies of the university. The issue is not without concern and may need to be seriously deliberated by the universities in order to examine its practical implications. But support for such involvement is found in some foreign universities where alumni are associated with the governing bodies of the university in the process of decision making.

4.7.5.2 Enforcing University Autonomy: Some Key Concerns

- *Revisiting the Acts:* There is a need to revisit the Acts of various State Universities to find out if there are some clauses detrimental to their autonomy. Such clauses should be replaced by clauses more conducive for the enhancement of autonomy.
- *Streamlining the Recruitment Process:* The universities must have the autonomy to recruit the most competent faculty as per the laid down procedures and purely on the basis of merit. Only persons of impeccable integrity, strong credentials and high achievements in their fields should be nominated on the selection/ search committees. The faculty should be recruited purely on the basis of merit and not on any other consideration.
- *Membership of Governing Bodies:* A university is administered by its senior functionaries under the guidance of its statutory bodies such as the executive committee, syndicate, senate, etc. The persons to be nominated to these bodies must have specialized knowledge in the relevant disciplines and should not have conflict of interests in so far as decision making in the university is concerned. These bodies should not be packed with ex-officio members and government nominees.
- *Institutional Leadership:* It is the duty of the Vice-Chancellor to safeguard the university autonomy. This is possible only when the head is a 'leader' in the true sense of the term in both academic and administrative matters. There is a qualitative difference between the management of an educational institution and that of an administrative department. The increasing trend of appointing civil servants as heads of educational institutions needs to be reviewed. Special

orientation programmes or conferences on the management of universities should be organized to enable the Vice-Chancellors, Directors, Pro-Vice Chancellors, Deans, and Heads of Departments to hone their management skills.

Changing Role Perceptions of Public Representatives and Civil Servants: The political class and civil servants in education ministries must appreciate that their role vis-à-vis institutions of higher education is restricted to policy making, enactment of legislation and monitoring and enforcement of norms of accountability. They do not have any legitimate role in the administration or day to day affairs of the institutions.

Autonomy and Accountability: Recommendations

The issues of autonomy need to be addressed in terms of their implications for academic, administrative and financial autonomy governing the university system. This triangular grouping focuses on integrated understanding, avoiding water-tight compartmentalization of issues. Most issues related to university autonomy are as relevant today as they were any time before, the same as been reiterated in the Report of the (Central advisory Board of Education (CABE) Committee on University Reforms of October, 2012. The relevant issues, and recommendations connected to them have been flagged below:

(a) Academic Autonomy

- Designing of curriculum with a focus on innovation and experimentation to transform teaching and learning into a fascinating and rewarding experience for teachers as well as students; introduction of new courses to meet local, state, national and global needs.
- Undertaking innovations for periodic revision of curriculum making the process of revision simplified, less cumbersome and less time consuming.
- Autonomy to design own procedure for selection of research fellows with potential for research to enable them to utilize their talents and contribute to quality research.
- Research endeavours should not suffer for want of funds; faculty to be accountable for carrying out research of acceptable standards evidenced by publication in reputed journals.
- Adoption of choice-based credit courses along with semester system.
- Switching over to internal evaluation of students over a period of time.

- Setting up an Internal Quality Assurance Cell (IQAC) to continuously assess the performance of the institution on objective and pre-defined parameters and making the output performance data public to ensure transparency and accountability.
- Autonomy of departments within the institutional set-up.
- Transparency and objectivity in the selection of faculty and faculty positions to be open to candidates on an All-India basis.
- Performance appraisal of teachers with adequate weightage for research work based on quantifiable parameters.
- Internal resource generation to fund and encourage participation in national and international consultations, seminars, workshops, conferences, etc.
- Programme for developing human resource for new and emerging realities in the field of higher education.
- A more sound evaluation of the quality of research with the focus on use of international benchmarks such as Citation Indices, Patents, etc.
- Synchronization of academic calendars, at least to begin with for institutions within a state, to ensure mobility of students from one institution to another, if the need so arises.
- Institutional mechanism, infrastructure and facilities for attracting international students and to enter into collaborative arrangements with their counterparts.
- Autonomy to establish linkages for academic and research collaboration with counterpart academic and research institutions and industry and professional organizations both in India and abroad.
- Development and observance of a Code of Professional Ethics for university and college teachers.

(b) Administrative Autonomy

- Management system in the university to encourage best practices of governance, speedy decision making, networking, team effort and collective responsibility to meet the emerging challenges.
- Head of the university/department to have autonomy to determine both the rank and the number of positions of Professors, Associate Professors and Assistant Professors in accordance with the tasks envisaged in the development plan of the university.
- Outsourcing of non-academic activities to achieve better efficiency and

greater effectiveness by reducing the overall burden of routine administrative tasks.

- Expeditious disposal of litigations on service matters a case for a Central/State Higher Education Tribunal; institution of grievance redressal mechanisms.
- Norms of accountability for individuals and institutions to be evolved which must be open, participative and data-based.
- Charter of responsibilities and devolution and delegation of authority defined for different levels within the university system.

(c) Financial Autonomy

- Provision of funds to individual universities in an untied manner to ensure greater degree of freedom in setting up priorities.
- Mechanisms for deciding the fee structure.
- Freeships and scholarships to meritorious and deserving students coming from lower economic strata of the society.
- Undertaking consultancy assignments and sponsored research projects.
- Inducing user agencies of the central and state governments to contribute to the development and growth of the university system by earmarking a certain percentage in their respective budgets for such purposes.

4.7.6 Equity based development

In the creation of any development or expansion plans, both states as well as institutions must keep in mind the guideline of equity-based development. In chasing the goal of greater access, the question of equity must not be compromised. Any growth in the higher education sector must create equal opportunities for women, disadvantaged classes and the differently-abled. Also, development must have a greater focus on serving the rural and tribal areas. The plan appraisal process would take this aspect into account while deciding the allocations. Special interventions through innovative strategies will be encouraged in the scheme. Well-calibrated equity strategies must be built into the entire state planning process.

4.7.7 Quality and research focus

Another fundamental guiding principle of RUSA is a greater focus on better quality of research and innovation in higher education. The aim is to reconcile the apparently

conflicting goals of achieving mass access to higher education with high quality standards. States will be encouraged to promote research and innovation in their institutions. Research is a critical component of higher education; it improves the quality of undergraduate and postgraduate education, and can also be vastly helpful in improving the quality of teachers who are recruited into the higher education system. Since research focus can be judged both from input efforts and outcome indicators, the State Higher Education Plans are expected to have a rounded appreciation of both aspects. States and institutions are expected to honestly declare their present status in this area and outline specific strategies for improvement. Each state can think of re-orienting one of its universities in state into a Research University. Similarly, one existing college in each district can be upgraded into a Model Degree College. It is expected that state institutions would make full use of ICT strategies in such efforts. The key parameters of research efforts are set out in the templates.

There is an imminent need to clearly define the research role of State Universities in the context of national and international expectations in the domain of knowledge generation. Research in universities has at times been under criticism for not being innovative, original and of high quality. While the essential mandate of the universities is to train and produce high quality personnel who can survive in the challenging environment of a rapidly changing society and can successfully adjust to varied tasks and environments of employment, the fact remains that good teaching evolves out of good research and from teachers who engage themselves in research.

For quality research and innovation to happen in the State Universities, the basic infrastructure in the universities has to be improved considerably. Funding is a major constraint, as well as critical mass of quality faculty in each Department. Intellectual in-breeding too contributes to poor output in research. Most State Universities fail to attract faculty from other states. Research is centered around individuals and the best students are attracted to those individuals who are engaged in high-end research. Industry partnerships with researchers are not much in vogue in our university system. Basic and fundamental research ought to happen in the university departments since the same does not take place in industry. Criteria such as the number of research publications, impact factors of journals in which papers are published, citations, the amount of funding attracted, etc., should be considered for faculty promotions.

To promote and incentivize research, funding of research through the UGC should be on the pattern of the Council of Scientific and Industrial Research (CSIR). It should be focused and outcome-oriented. A part of the infrastructure (one time) funding for research purposes received by the universities should be converted into recurring grants for research. The process of acquiring, especially importing, scientific equipment for laboratories should be simplified. Mobility of researchers is important and should be facilitated. Equally important is the mobility of the research assistants, which also needs to be addressed.

The issues of research and innovation need to be addressed at various levels, namely:

- (I). The way the research programmes such as M.Phil and Ph.D are organized and carried out;
- (II). the time and energy devoted by the faculty in carrying out independent research projects
- (III). the outcome and quality of research undertaken by the faculty; and
- (IV). integrating research with teaching. There is a need to enhance the involvement of faculty working activities in the postgraduate and research departments, and colleges in research; presently they are predominantly engaged in classroom teaching. The initiatives taken by the UGC in this direction need to be supported and supplemented by creating appropriate mechanisms and structures in the State Universities and the colleges so that teachers can feel motivated to undertake research as an important aspect of their professional commitments.

State Universities that have had a long and reasonably good academic culture of research and innovations have also been facing serious procedural problems such as lack of administrative support, delay in clearance of research proposals, timely release of funds and institutional monitoring of research needs. Most of our universities need to strengthen the support for Intellectual Property Rights (IPR) related initiatives in order to encourage successful patenting as well as innovation in teaching and research.

State Universities require serious attention and support to improve the quality of teaching and research. The following are the specific suggestions to promote innovation and research in the State universities:

(I). SpecializationOriented InterUniversity Centres (IUCs) More speciality-oriented Inter-University Centres (IUCs) may be created, particularly in view of the enormous benefits presently accruing to the faculty/ scientists from the existing IUCs. Provision of "Central Instrumentation Facility" catering to faculty members should be made. To maintain the instruments and take care of their running costs, a Corpus Fund with the support of the UGC may be created in each State University. A data bank of all major equipment may be maintained at the State University level and displayed on the university web page to enable collaborations and for optimal utilization by all the stakeholders. An IUC for informal knowledge systems pertaining to cultures, communities, heritages, endangered languages, etc. should be set up by the UGC at the national level.

(II). Innovation Clusters / Innovation Incubators:

University Innovation Clusters should be set up in all geographical locations with the State University acting as a nodal point of such a cluster, with a view to building an innovation network with industry, other universities and Research and Development (R&D) laboratories. This would ensure optimum use of human and infrastructural resource. An Innovation Incubator should be established to create the necessary linkages between the State University, relevant local/national industries, and research labs. / Institutions, civil society and the government. The funding for such initiatives on creating clusters and incubators must be realized through Public Private Partnerships. For State Universities/institutions located in remote/rural/ less developed areas, special steps should be taken to develop their human resource and infrastructural capacities. These steps may include 'mentoring' by reputed National Institutions/laboratories/industry/individual, etc.

A concerted and collective effort may be made by the State Universities and research institutions located in various geographical regions to access, coordinate and develop cross border resources and knowledge pools. Measures like incentive networking with cross border academic and research institutions and exchange of scholars, professionals and experts could be undertaken in order to facilitate the same. To encourage university-industry partnership, adequate measures should be taken including fiscal incentives.

(III). Research Grants:

Funds for development of research infrastructure facilities like the Special Assistance Programme (SAP) programme may be given to each Post Graduate department of the State University. Separate funding for enhancing the research of State Universities for possessing high reputation in research like "Innovation in Science Pursuit for Inspired Research (INSPIRE) scheme could to be enhanced. Generous funding should be given to the State Universities for carrying out quality research so that high caliber human resource is produced

The faculty of the State Universities could be allowed to take up consultancy work and collaborative research with industry and other private stake-holders. Every State University should enhance the relationship between universities and industries for the scientific advancement as well as for developing quality workforce.

(IV). Incentives to Faculty:

For the promotion of research activity, the state government should encourage college teachers by providing seed money or grant for research projects. Faculty with higher research performance and output should be considered for incentive promotions. There should be a non-lapsable pool earmarked for research work at the State University level with due incentives, awards and recognition for outstanding research work. At the State level, a body involving distinguished scholars / researches having expertise in different areas both at the national and international levels should be constituted. Teaching faculty should be considered for reimbursement of travel, accommodation and other related expenses for duty related travel on par with industries and the private sector.

(V). Research Facilities:

A separate common fund for developing sophisticated facilities is necessary for developing research capabilities of the State University system. Common research facilities should be available to researchers of all universities in the state. The scholars should be given appropriate research scholarships and the universities should be able to build up facilities like well- equipped laboratories, language laboratories, libraries, archival collections, etc.

(VI). Intellectual Property Rights (IPR) Cells:

The scientist inventing the intellectual property should be given priority in sharing the IPR along with the sponsoring agency and the State University and should be encouraged to develop, disclosed patent and commercial intellectual property.

(VII). (viii) Data Bank:

A data bank on problems/challenges faced by industry / enterprises / and

society should be created for undertaking research projects in the State University. The interdisciplinary expertise, equipped laboratories, students, and library services in the State Universities / affiliated colleges should be used for joint research with research institutions / industry. A Databank of universities in the State should also be created.

(VIII). Research Publications:

Research publications by the faculty of the State Universities, on acceptance by international journals could be considered for funding of full or partial cost. The faculty should be allowed to draw royalty income derived from transferring their inventions to industry. They should also be encouraged to take up paid consulting work for companies or positions in Advisory Boards.

(IX). Foreign Collaboration:

The government should liberalize the policies for collaboration with foreign countries and to receive the grants for research.

(X). Research Incentives for Students:

The government should increase the amount and number of student fellowships. Fellowships should be given at different stages starting from entry to graduate programmes. The conducting of course work for Ph.D. should be undertaken by the recognized research guide in collaboration with the university departments and, if necessary, invited experts from outside the State University. The UGC should provide funds to introduce Masters-Ph.D. integrated courses in the State Universities for at least 20% of the students in each subject.

(XI). ICT:

ICT content development be made compulsory at the State University level. The research scholars should be motivated to opt for innovative inter-disciplinary research to take advantage of the convergence of technologies.

Centres of Excellence in Research and Development will be created in at least 10 important and specific areas chosen by an expert committee. Joint ventures and Memoranda of Understanding with world class universities and premier institutions across the world would be encouraged. The effort should preferably be on locating these Centres in the Research Universities proposed under RUSA.

(XII). SenioritycumPerformancebased Promotion:

To introduce seniority-cum-performance based promotion to attract and retain world class talent, the following is suggested:

- Performance appraisal of teachers may be initiated based on Memoranda of Understanding (MoUs) with each faculty member.
- Points can be allocated to teaching, learning and evaluation activities, which include tutorials, lectures and practicals; research activities and cocurricular activities.
- An "Internal Quality Assessment Cell" will maintain an annual database of individual and institutional performance.

(XIII). Creating Centres of Excellence:

Each state university may develop at least one centre of excellence in a discipline considering its own human resource endowments and regional requirements. Existing models either in the Central Universities or research centres in this regard may be studied. It is also necessary to study success models of coordination and collaboration between and State universities and Central Universities and research laboratories.

(XIV). Innovative Academic Programmes:

Promoting quality research requires, apart from other things, quality research students. One initiative suggested is introduction of four year undergraduate programme with a provision for attaining Master's Degree with additional credits. This has to be supported not only to augment quality input but more important to retain them for research.

(XV). Funding for Cutting-edge Research:

Top academicians prefer to join only those special institutions which have good research funding rather than universities. This is very much against the international practice where the cutting edge research is carried out in the universities and not in institutions outside the university system. Carrying out cutting- edge research in a university ensures supply of fresh blood in the system and motivates young minds to take research as their career. It is most important that the cutting edge research is brought into the State University system commensurate with funding so that high calibre human resource is produced by the university. In respect of research and innovations, the following need to be done;

• Earmarking of budget allocation for research and innovations for individual universities.

- Establishment of specialization-oriented Inter-University Centres (IUCs).
- Establishment of Innovation Incubators to create necessary linkages between the universities, relevant local/national industries, research labs, and civil society, through the PPP mode.
- Setting up of Intellectually Property Rights (IPR) cells.
- Support institutions undertaking cutting edge research and where there are multiple institutions involved, encourage collaborative research so that funding is optimally utilized.
- Role of University Innovation Clusters for building an innovation network with industry, other universities and R & D Labs to ensure optimum use of human and infrastructural resource;
- Enhancing the number as well as the amount of research fellowship;

However, there is a need to further identify and deliberate on key areas of concern in order to convincingly make our way forward. Research and innovation capabilities needs to be developed along with social accountability. Research should be socially relevant. Each University can develop a thrust area for its researchers. Based on it some incentives should be provided with special grants to the R and D Programmes of the universities. The research capabilities of the individual's researches should be enhanced and encouraged through the packages of incentives.

4.8 Prerequisites

A cornerstone of RUSA will be the stipulation of a set of a priori prerequisites, or commitments that must be made by the state government as well as institutions in order to be eligible for receiving grants under RUSA. This is an essential element of strategic central funding. These conditions are in the nature of categorical policy imperatives that would ensure that the higher education in the country is guided on desirable paths by all states.

The prerequisites are at two levels, commitment given by states to center and the commitment given by institutions to the states. Unless these commitments are fulfilled, the states and institutions will not be able to avail of grants under RUSA. The states are expected to fulfill the a-priori requirements and also honour the commitments made towards certain conditions which must be fulfilled during the course of RUSA implementation.

Table 3Prerequisites

Prerequisite	
For the States	State Higher Education Council
	State Perspective Plan
	State contribution to higher education as a % of GSDP
	State commitment to adhere to timelines for fund release
	Agreement to create separate fund for RUSA
	Filling faculty vacancies
	Accreditation reforms
	Affiliation and examination reforms
	Governance and administrative reforms at State Level
	Institutional governance (administrative) reforms
For the institutions	Application of governance (administrative) reforms at Institute level
	Academic reforms and facilitating inter-disciplinary learning
	Examination reforms
	Affiliation reforms
	Separate project management teams
	Perspective planning
	Equity commitment (especially in aided sector)
	Commitments on research and innovation efforts
	Mandatory faculty recruitment and improvement
	Establishment of Management Information System
	Regulatory compliance

4.8.1 State Higher Education Council

In order for the state higher education system to function effectively, states need to set up State Higher Education Councils. These Councils may be formed through an executive order to begin with, but must be converted into statutory bodies by Acts of the state legislature within two years. The councils will perform multiple roles such as strategy and planning, monitoring, evaluation etc. The subsequent section will detail the way these councils have to be structured and formed.

4.8.2 State Perspective Plan

Under RUSA, a perspective plan (State Higher Education Plan) for Higher education in the State is to be drawn up for a spread over a period of ten years which would be reviewed after five years. The Perspective plan is required to be broken down into annual plans with detailed planning and budgeting exercise to fix the annual targets for programme implementation and the required budget for them. To effectively implement and monitor the activities during the year, each implementing agency in the State is required to prepare a plan of action. This should indicate the physical targets and budgetary estimates in accordance with approved pattern of assistance under RUSA. These should cover all aspects of programme activities for the period from April to March each year, and are to be sent by each State/UT to the MHRD, GOI for approval well before the start of the year. It is important that the action plan is realistic, practically implementable and correlates the physical outputs with cost estimates.

4.8.3 State contribution to higher education

The States must make a detailed State Higher Education Plan in the prescribed format duly keeping in mind the norms and indicators under RUSA. These plans would constitute the primary vehicle for the States to plan for accelerated growth and equitable development of the higher education sectors. The plans must be formulated keeping in view the targets that the state wishes to achieve in a ten-year time frame. These targets would then be broken down into annual milestones and targets. Each State Higher Education Plan has to comply with the timelines prescribed under RUSA. A Project Approval Board at the national level would appraise and evaluate each of the plans. Future allocations would be based on the achievement of targets and the past performance of the states. The detailed prescription for the State Higher Educations

Plan is attached as an Annexure 3. The template is only meant to be a guide and states are encouraged to elaborate upon it further and also make it more comprehensive and relevant to their context.

4.8.4 State commitment to adhere to timelines for fund release

It has been observed that many State Universities have not been able to perform well for want of adequate resources from the state exchequer. Plan and non-plan support from the states is either stagnating or coming down. This has compelled many institutions to seek alternate sources, thereby creating a vicious spiral wherein self-financed courses and affiliation fees have become primary sources of revenue. Faculty recruitment in many states have practically stopped for fear of incurring additional non-plan liabilities. While RUSA would very handsomely compensate the states for their efforts, it is expected that states too would announce their intent and commitment for the state higher education by means of higher outlays. The State government must gradually increase to spend on the state higher education sector 2 % its GSDP during the course of implementation. Any state which was spending more than 2% of its GSDP on higher education is expected to maintain the same level.

This programme envisages for centre-state funding to be in the ratio of 90:10 for North-Eastern States, Sikkim, J&K, Himachal Pradesh and Uttarakhand and 65:35 for other States and UTs. Funding will be provided for government-aided institutions, subject to antiquity, for permitted activities based on certain norms and parameters. While the Central Government has committed to allocating (65%/90%) of the resources, it is important that the states also commit the resources as per the stipulated center-state share at the outset. Such a commitment from the state government will help in timely disbursement of grants for the implementation of the State higher education plan.

In addition to the state providing its share, it must also ensure that the monies are transferred to the State Higher Education Councils within the time stipulated by RUSA. It is highly essential to also ensure separate fund creation and pooling systems so as to take the RUSA allocations out of the regular budgetary stipulations. Experiences in other CSSs show that sometimes states do not transfer the matching grants in time to the concerned institutions without which no progress can be made on the plans, as the institutions do not have enough funds to embark on any activity. Hence, the timely disbursal of the matching grants through a dedicated channel is essential. As per the recent decision of the Government of India on restructed Centrally Sponsored Schemes in XII Plan, "the state government may be directed to ensure prompt release

(the contributions received from center along with their matching contribution) from their consolidated fund to the societies/implementing agencies within 15 days failing which they would be liable for payment of interest. This would apply in case of RUSA as well.

4.8.5 Filling faculty positions

The faculty forms the backbone of any good educational institution. State Universities in most cases suffer from acute faculty shortages, both in terms of poor studentfaculty ratios as well as a large proportion of faculty positions (out of those sanctioned) remaining vacant. In the previous sections, we have explored the reasons behind faculty shortages; lack of financial resources mainly which restricts the states from appointing faculty. Long bureaucratic processes for appointing faculty as well as ban on faculty recruitment in some states further exacerbate this problem. However, for any significant changes in quality, in some cases even for the routine functioning of institution, it is necessary to appoint full-time faculty in adequate numbers. There exists currently a huge reservoir of qualified potential faculty (nearly 80,000 PhD and 1, 00,000 NET qualified candidates) who can be tapped. Hence, the states must ensure that the faculty positions are filled in a phased manner. If any state has imposed a ban on regular recruitment of faculty, the State must ensure lifting of all such ban, and requisite proof must be produced. States must also present a coherent action plan to fill up all the vacant positions in a time bound manner. This should also take into account the ideal student faculty ratio and the states must be aware of this requirement. Not more than 15% of the faculty positions can remain vacant at any time in the state. If any state has more than 15% faculty positions remaining vacant by the end of first year of RUSA, it may lose the entitlement for any further grants. The new appointees as well as the faculty appointed, in the past, must be remunerated according to UGC regulations and the prescribed latest pay scales as prescribed. The procedural bottlenecks in the recruitment processes must also be actively eliminated. As far as student teacher ratio is concerned the UGC has recommended it to be 15:1 for undergraduate and 12:1 for post-graduate courses. Universities must strive to achieve this by filling up existing vacancies and creating new posts if required. Faculty support on a recurring basis will be considered under RUSA only to those universities which have a lower than 15: 1 ratio, to the extent that is lower.

In view of the suggestions received from states during the consultations, it was decided that the states must be provided some assistance in recruitment of faculty. Hence, RUSA seeks to support a limited number of existing regular faculty positions

(about 20,000 assistant professors or equivalent grade) will be supported for the entire duration of the Scheme. This will significantly contribute towards addressing the question of faculty shortage that plague our higher education systems and significantly contribute towards quality and excellence.

4.8.6 Mandatory Accreditation

Assessment and accreditation in higher education, through transparent and informed external review process, are effective means of quality assurance in higher education. These mechanisms provide a common frame of reference for students and others to obtain credible information on academic quality across institutions thereby assisting student mobility across institutions, domestic as well as international. Till recently, accreditation was voluntary as a result of which very few colleges and universities were accredited. Mandatory accreditation in India's higher education sector would enable it to become a part of the global quality assurance system. Hence all institutions eligible for funding under RUSA would require to be accredited or have applied for accreditation. The role and spread of National Assessment and Accreditation Council and the National Board of Accreditation would be expanded to cater to the large number of institutions which would be applying for accreditation.

4.8.7 Affiliation reforms

In the previous sections, the problems that arise out of the affiliation system have been discussed in detail. In order to solve the problems of poor quality, lack of control and additional administrative burden on the universities, affiliation system reforms are an imperative. A large number of institutions and enrollments are under the affiliated college system and any serious attempts at improving the quality of higher education institutions must necessarily remove the ills of the present affiliation system. Given the financial support that the affiliate colleges give to the universities, there is always reluctance on the part of the universities to undertake these reforms. The issue must be adequately addressed, if affiliation reforms are to succeed. Another aspect which requires active consideration and (an innovative state-level policy) is for private colleges, which after establishment, seek affiliation from a university. The states must ensure that approval of only such colleges is accorded to only those private colleges which come up in areas where they are really needed. A tight fisted policy on new private colleges in an already saturated sphere is quite essential at this juncture. It is expected that states would disclose their policy on such private colleges and private universities in the State Higher Education Plan.

Under RUSA, the state government's commitment to undertake reforms in the affiliation system is an a priori condition for getting the funding. Following are the paths that can be taken in reforming the affiliation system:

- (I). Limit the number of colleges to be affiliated to any university to 100¹⁰⁷.
 However, this would mean establishing more affiliating universities than the present numbers.
- (II). Establish campuses of existing Universities to better serve colleges in their physical proximity. In this case, all academic and administrative responsibilities regarding colleges will fall on the offices of the various campuses.
- (III). Large autonomous colleges can be encouraged to develop into universities.
- (IV). Create College Cluster Universities by clustering a minimum of 3-5 colleges in the area surrounding a city or in a district giving the university its own independent establishment, degree granting powers and governance.
- (V). A number of colleges could be encouraged to merge, to create a larger institution. It is likely that this larger institution would have the capacity to become autonomous. This would also ensure inter- disciplinarity and cross disciplinary learning.
- (VI). Establish new constituent colleges where there is a large youth population. A number of constituent colleges can be under a university like the case of Jawaharlal Nehru Technological University in Hyderabad. Unlike the affiliated colleges, which are managed by college management committees, the constituent colleges will be under the administrative control of the university. Recently Punjab University has followed this model in setting up four constituent colleges in collaboration with the state government.
- (VII). Tight regulation and control on establishment of new colleges. New colleges be set up after undertaking a proper mapping and needs assessment. Establishment of new colleges be undertaken after the State Council for Higher Education takes an informed decision on the need for such a colleges based on the perspective plan. Such colleges be then affiliated to Universities on the basis of approval obtained from the State Council for Higher Education (and Regulatory bodies as in the case of Technical Education). Suitable amendments, if any, to University Acts should be undertaken to provide power to the State Council for Higher Education for giving approvals to set up colleges and

institutions. Already saturated universities must be prevented from further affiliating colleges.

- (VIII). Every state should be mandated to prepare a road map on higher education which could contribute to the formulation of a scientific policy on affiliation. An effective, and not routine or mechanical, monitoring of the colleges by the affiliating university is urgently required. Conditions are usually laid down while granting affiliation, but the universities are normally not able to monitor the fulfillment of such conditions. This practice needs to be changed. A college not fulfilling the required standards in teaching-learning process and governance should be disaffiliated after giving prior warnings. Of course, in such eventualities, the interests of the students, teachers and staff have to be preserved.
- (IX). The Acts and Statutes of the State Universities may be amended suitably to accommodate the vision for a higher enrolment ensuring social equity as well as quality of education. The existing Acts and Statutes may have to be fine-tuned to address the educational issues of the present century. The Union Government or the UGC may constitute a committee to frame a Model University Act and Statutes, on the basis of those existing in the Central Universities and Institutions of National Importance for consideration and adoption by the State Universities. A grace period of two to three years can be given to the states within which the amended Act and Statutes can be brought into force.
- (X). It is important to ensure that accreditation is not limited to universities and colleges but also made mandatory for individual departments and programmes of the university. Funding should be contingent on accreditation. This should lead to more or less uniform quality assurance.
- (XI). The States may not be permitted to constitute uni-disciplinary universities. Multi-disciplinary synergy is an inalienable element for any university to be worth the name. The UGC and the Centre should view this trend of setting up single discipline universities seriously.
- (XII). Colleges in the government and aided sector having more than 25 years standing and awarded the National Assessment and Accreditation Council (NAAC) Grade A may be considered for being given autonomous status and those with more than 50 years standing and NAAC Grade A may be accorded degree-granting status.

- (XIII). On an average, an Indian university enrolls 3,400 students and a college enrolls 400 students. Hence capacity building in universities and colleges may be encouraged so that the GER may be doubled from the current level. This is a better option than starting new universities and colleges since it avoids additional expenses, lapse of time, land acquisition problems, etc.
- (XIV). Since only self-financing colleges and self-financing programmes of aided colleges have job-oriented interdisciplinary courses, the students who are economically weaker and enroled in the state colleges are not getting the opportunity to benefit from such courses. Hence state colleges and aided colleges must be supported by the state government to introduce job-oriented inter-disciplinary courses.
- (XV). The affiliated colleges located in rural areas are unable to attract qualified faculty to serve in them. To overcome this drawback, the faculty should be given incentives by the government to motivate them to serve in the rural areas.

4.8.8 Establishment of Management Information System

The states must ensure that all its higher education institutions are linked to the Management Information System through which RUSA will be monitored and implemented. The National Knowledge Network (NKN) and National Mission on Education through ICT (NMEICT) already provides high speed internet connectivity with wide availability and scalability. It also provides facilities for distance learning etc. The states must ensure that the institutions take advantage of these facilities provided by NKN. it is therefore essential that the state institutions create the LANs or WANs in order to fully utilise this facility. The entire Information flow must be online and real time. The processing and approvals are all expected to happen online by creating a robust and dynamic MIS package. The Institutions and states must ensure availability of sufficient and qualified manpower to manage the MIS, uploading of data and information etc.

4.8.9 Governance Reforms

There are in particular two strands of governance that must be improved:

• Sector governance: Managing the higher education system with a strategic framework and appropriate accountability so that institutions achieve the stated objectives.

• Institutional governance: The structures and processes within which institutions are given autonomy to plan and manage their affairs should be administered in a way so as to achieve the state, local/regional objectives.

These two aspects of governance have been subject of extensive debate since independence. Sectoral governance was discussed in the initials reports of committees set up by the Government of India i.e., the Radhakrishnan Commission (1948), and the Kothari Commission (1968), which laid the basic framework for the National Policy on Education of 1986, signifying the five cardinal principles on the basis of which higher education in India needs to be viewed – greater access, equal access(or equity), quality and excellence, relevance and value based education. More recently some committees and commissions have debated around both these aspects of governance through the National Knowledge Commission (2008), the Yashpal Committee (2009), and the Madhava Menon Committee report on reforms in Centrally Funded Institutions (2011).

4.8.10 Sectoral Reforms

The major sectoral problems of governance is that the state governments micromanage universities. The interactions between institutions and regulatory bodies are cumbersome and do not promote expansion of quality institutions. The quality assurance mechanisms in the sector are weak. In addition to this, financial planning and allocation are not linked to performance. It is therefore important for states to very clearly define their role and not only give enough autonomy to universities but also to build in strong accountability mechanisms. Therefore the state may have to do the following:

- Carrying out legislation/amendments to legislations ensuring existence of State Universities as autonomous independent entities
- Withdrawal of the state from certain detailed control and management functions and the devolution of responsibility to universities themselves
- The creation of buffer bodies or agencies (State Higher Education Councils) to carry out some of the detailed policy, planning and supervision functions in the sector or to provide sector wide services
- Adoption of funding models that give institutions greater freedoms and that encourage them to explore new sources of income
- The development of new forms of accountability through reporting on performance and outcomes in achieving nationally-set targets for the sector, as well as institutionally-set targets

 Gradual withdrawal of the state from decisions on appointment of Chairpersons of the Executive Council or Vice Chancellor and members of the Executive Council. The concept of creating self- electing collegiums to create a database of academics for leadership position is worth exploring.

4.8.11 Institutional Governance (Administrative) Reforms

The current challenges that Universities and Colleges encounter to seek better institutional Governance may be enumerated as follows:

- · Methods of appointing Vice-Chancellors
- Rationalize the size and composition of decision making bodies (Executive Council, Academic Council, Senate)
- · Human Resource policy (Faculty appointment and appointment non academic staff)
- Process re-engineering : Finance facilitation and approvals from government
- Restructuring of Affiliation system

It has been observed that there is political interference at all levels, in particular in the appointments of key functionaries in the universities' decision-making bodies. The manner in which many of the decision-making bodies has been composed has at times resulted in these bodies becoming ungovernable. This has led to low levels of accountability, which seriously compromises the quality of State Universities and colleges. The following options are being suggested as a way forward in bringing about better institutional governance:

Introduce more autonomy in universities: There are generally three main forms of autonomy: academic, financial, administrative/human resources. While the universities currently have some level of administrative autonomy, there is a need to devolve more authority to the universities in the areas of academic, finance and human resources areas. For example, the universities should be recognized as experts in academic matters and be given the authority to take all academic decisions including those related to curriculum and examinations. In the areas of finance, the universities could be given autonomy to manage their own budgets including sourcing their own funds and being allowed to keep them subject to well-defined policy and reporting parameters. The block grants concept must be encouraged to infuse such autonomy in financial matters. In the areas of human resources, the proposal is that universities should be allowed to select and recruit their own staff (both academic and non-academic). This gives the university more flexibility, and enhances their effectiveness and competitiveness; leading to an overall improvement in the quality of education.

Establishment of a Board of Governors: As the universities are given more flexibility and autonomy, it is important to put in place a sustainable and independent framework to guide the university senior management in key decisions. There is a need to develop models of governance along the lines of the governance framework, which exists in some of our premier institutions of higher learning, namely, Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), Indian Institute of Science (IISc) etc. In the subsequent discussion on the proposed governance model for the higher education system, certain key features from these institutions have been adapted and the most recent recommendation made by the Madhava Menon Committee (2011) on 'Autonomy in Central Educational Institutions' have also been incorporated.

More specifically, it is proposed that a Board of Governors (BoG) be established which will be the final approving authority on key matters of the university. The BoG will be responsible for setting the university's strategic directions and path of development, and will be the final approving authority for policy matters including finance and human resources (within approved policy parameters and guidelines), and making and reviewing statutes and ordinances. The BoG will also be given the flexibility to decide on the internal governance structures of the university. In institutions where Executive Councils already exist, they can perform the functions of Board of Governors.

Keeping in mind the international practices found in USA and Europe as well as the practices adopted by the IITs and IIMs, it is recommended that the size of the BoG be kept small to enable effective decision meeting. The BoG could be a 10-15 member body chaired by an eminent individual. The Chairman need not be an academic but must have prior experience in a similar capacity (whether in the educational sector or industry). Similarly, the board members should comprise eminent individuals from the institutions itself, state government, society, industry as well as the academia. It is recommended that at least 50 percent of the board members should be external to the institution and have significant interest in the higher education sector. Partly self-selecting BoGs may be a very good idea to ensure least interference from outside.

Selection Committee for the Vice-Chancellor (VC): Akin to international practices as well as local ones found in the States of Karnataka, Maharashtra, Rajasthan and West Bengal, it is suggested that the VC be selected via a transparent, objective and competitive selection process. A selection committee comprising three to five independent and well-respected representatives from the Board of Governors, society, industry, the state government and the academia could be formed and tasked with the responsibility of selecting the candidates. The BoG should be the final approving authority that appoints the VC. Key selection criteria should include academic credentials, management experience and expertise, leadership potential, integrity and values. An innovative way forward could be to constitute a collegium that would create a database from which selections can be made as and when needed. This will greatly speed up the process of selection of VCs. A separate cadre of education managers may also be created by the interested states.

- *Accountability Framework for the Universities:* With autonomy and greater responsibility given to both the BoG and the university senior management, there is a need to put in place an accountability framework to ensure the proper usage of public funds. Such accountability can take varied forms as follows:
 - Establish key performance indicators such as student attrition and transition rates, graduate employment survey results etc., which are reviewed on a yearly basis by the state government and universities;
 - Put in place a system of regular monitoring and updates of the university's development and performance; web -based disclosure and a state higher education portal for students and parents may also be a welcome intervention;
 - Develop and implement a Quality Assurance and Accreditation (QAA) mechanism and process to ensure the delivery of quality education; and
 - Ensure information transparency by requiring key information and documents (such as the results of graduate employment surveys, summaries of the QAA reports, ranking of colleges etc.) to be published

Activation of Grievance Redressal Committee: On the lines of the recommendation made by the UGC and the All India Council for Technical Education (for all technical institutes in the country), the states must ensure the establishment and activation of Grievance Redressal Committees in State Universities to address the concerns of students, parents and others. The information regarding the existence, constitution and functioning of the Grievance Redressal Committees should be publicly available on the website of the university, prospectus, notice boards etc. The students, parents and others may first approach the Redressal Committees in case of concerns and may then take the matter to the appropriate authorities. Recent UGC regulations on students' entitlements and creation of ombudsmen must be followed by all institutions.

More autonomy should be given to universities and colleges. Linked to the above two issues is the need for greater autonomy in academic, finance, administration and human resources areas to the State Universities and better-performing colleges. UGC has also recommended that affiliated colleges should be groomed and, when adequate capacity is ensured, should be conferred with the status of autonomous colleges. This would allow the colleges to design their curriculum, rather than having to depend on the affiliating university. There is certainly a need to put good internal governance practices in place in colleges so that there is minimalistic interference from external agencies. Effort should be to ensure that every college eventually acquires the autonomous status.

4.8.12 Academic Reforms

An action plan is needed for the phase-wise introduction of substantive academic reforms in the institutions of higher education in the country. Academic reforms are a key towards imparting better quality education that is oriented towards employability and innovation. In addition to changes in the existing system, we need to introduce new policies that would make the higher education system more flexible to the needs of the students and the society. Following are the details regarding the academic reforms that must be undertaken by the states and institutions.

1. Semester System

For long, educational institutions have had the format of academic session, spread over 10 to 12 months. This format suffers from several limitations, which is why most institutions of higher education in Western Europe and North America follow a semester-based system. The semester system goes far beyond a time-based format. It enlarges curricular space and encourages and supports accelerated learning opportunities for all concerned. Further, it has the ability to accommodate diverse choices that dynamic and motivated students may like to make.

In India, too, several professional and technical institutions have adopted a semester system. Reportedly, it is working satisfactorily. Given this fact, it is high time that the semester system is made mandatory for all the institutions of higher education in India, and all the universities are asked to switch over to the semester system. The implementation of semester system calls for several interconnected steps that will have to be undertaken by the universities and colleges. These are as follows:

- Deliberation and resolution on the semester system in appropriate academic bodies of the institution at different levels to develop a time line.
- Decision on the student-faculty contact hours during a semester in different programmes, that is, certificate, diploma, undergraduate and

postgraduate. M.Phil. and Ph.D. students also to do course work.

- Re-configuration and revision of curricula (while the quantum of instruction work of faculty members remains about the same, the number of papers or credits would be twice as many).
- Determining the amount of work to be completed (or credit points to be earned) by the students in undergraduate, postgraduate, M.Phil. and Ph.D. programs.
- Decision on the time-distribution for class room-work, field-work, laboratory-work, workshop practice and/or other curricular work. Distribution will vary from subject to subject.
- The implementation of semester system may be completed within two calendar years in all the Central Universities and within three years in all the State Universities.

2. ChoiceBased Credit System

The Choice-based Credit System (CBCS) has several unique features: Enhanced learning opportunities, ability to match students' scholastic needs and aspirations, inter-institution transferability of students (following the completion of a semester), part-completion of an academic programme in the institution of enrolment and part-completion in a specialized (and recognized) institution, improvement in educational quality and excellence, flexibility for working students to complete the programme over an extended period of time, standardization and comparability of educational programme across the country, etc

The CBCS eminently fits into the emerging socio-economic milieu, and could effectively respond to the educational and occupational aspirations of the upcoming generations. In view of this, institutions of higher education in India would do well to invest their available resources into introducing CBCS. Aided by modern communication and information technology, CBCS has a high potential to be operationalized efficiently and effectively - thus elevating students, institutions and the higher education system in the country to newer heights.

It might be added that a large number of universities and institutions in the country already have their undergraduate and post-graduate 'papers' subdivided into units and sub-units. In switching over to CBCS, the task of such institutions would be relatively easy. In a generalized manner, the sequence of CBCS would be: Paper - Unit – Sub units - Credits.

For implementing the CBCS, institutions of higher education need to take the following steps:

- Review of curricular contents (study papers, term papers, assignment, workshop-assignment, experiments etc.) of certificate, diploma, undergraduate, post-graduate, M.Phil. and Ph.D. programmes.
- Foundation credits/courses on English language, written and oral communication, and presentation skills for students who might require improvement in these areas.
- In order to make the CBCS more comprehensible to faculty, students and examiners, all the curricular contents are specified, and sub-divided into units and, if need be, into sub-units, which are subsequently assigned numerical values termed as 'credits'.
- Faculty of the concerned 'department' deliberates and decides on (a) core credits, and (b) elective or optional credits for different levels of academic programmes.
- Departmental faculty evaluates and decides on the relative weightage of the core and elective credits.
- Decision have to be taken on the 'total' credits to be earned (or completed) by students undergoing certificate, diploma, under-graduate, post-graduate, M.Phil. or Ph.D. programmes.
- Generally core credits would be unique to the programme and earning core credits would be essential for the completion of the programme and eventually for certification.
- On the other hand, elective credits are likely to overlap with other programmes or disciplines of study (for example, languages, statistics computer application etc.).
- Students enroled for a particular programme or course would be free to opt and earn elective credits prescribed under the program, or under other programs within the department, faculty, university or even outside the university/ institution of higher education.

3. Curriculum Development

The hallmark of vibrant educational institutions and disciplines is their curricular content, which evolves continuously and comprehensively. Curricular revision should be an ongoing academic activity involving all the faculty members. Not only does it endows academic programmes with quality but also adds to their contemporariness and relevance. Available information indicates that universities and institutions of higher education in the country do undertake revision of the syllabi of the programmes offered by them, but priority and periodicity of such

remain somewhat uncertain. The process of revision also varies with disciplinesprofessional and technical disciplines are comparatively more vigorous in this regard. Nonetheless substantial thought and attention have to be devoted to curricular development in all disciplines and in all the academic programmeswhether under-graduate, post-graduate, M.Phil. or Ph.D. In a general way, the following steps need to be adopted on priority basis:

- All the academic programmes (certificate, diploma, under-graduate, postgraduate, M.Phil. or Ph.D.) should be subjected to updating or revision, to a limited extent in every academic year(for professional and post-graduate courses) and substantially every three years for all the courses.
- Updating and revision of the curricula is to be carried out in terms of (a) current knowledge, (b) national and international developments, and (c) relevance of new ideas, concepts and knowledge in the concerned discipline.
- This important academic function requires "curricular transaction' and the synergies of all faculty members in the departments, centres or schools and is based on the principle, of 'teach and update curriculum'.
- Towards this end, faculty members are called upon to be discerning and given to notes-keeping on current knowledge, especially related to their teaching assignments.
- To achieve this, faculty members are to regularly draw upon books, journals -and internet search engines.
- In this regards, UGC promoted INFLIBNET, INFONET, and E-journal would also make for a good resource.
- Faculty members would also have the flexibility to develop, for one or more semesters, topical courses falling within their academic interests and in keeping with the thrust of the programme, along with the indicating of credit values for such courses
- All curricular updates are to be reviewed and endorsed by concerned Departmental, schools ,committee and other university and college authorities.

4. Admission Procedure

The process of admission of students to educational institutions is the first and most critical step that should ensure access, inclusion, equity and quality. With the fast changing socio-cultural milieu and growing demand for higher education, the importance of the admission process can hardly be over-emphasized. It can no longer left to 'well-meaning intentions' and ad hoc decisions. Admissions ought to have objectivity and transparent procedures. As a part of academic reforms, institutions of higher education in the country need to pay very serious attention to the procedures for merit based admission to their certificate, diploma, undergraduate, post-graduate, M.Phil. and Ph.D. programmes. In this direction, the following points may be taken into consideration:

- To ensure transparency and credibility in their admission procedure, universities and institutions of higher education need to make liberal use of 'notice board', print media, electronic media, websites, etc to declare their admission procedures.
- Institutions and universities need to properly publicise their academic calendar, highlighting the number of seats (in all the courses including M.Phil. and Ph.D. programmes), required qualifications and important dates in the admission procedure for various courses.
- The candidates' admission test need to be assigned confidential codes, that is, they should be encoded, before being passed on for evaluation/assessment. The candidates for under-graduate, post-graduate or doctoral programmes who have been assessed by recognised national or regional agencies (JET, NET, SET, etc.) may be granted exemption from the written examination.
- Depending upon the course requirements, candidates may also undergo group-discussion, interview or any other competency examination.
- The assessment as reflected in marks or grades obtained in the written examination, group-discussion, interview and / or any other competency examination, must be treated as strictly confidential, and be known to authorities only on 'need to know' basis, till the results are finally complied/ announced.
- The marks or grade obtained in the written examination, group-discussion, interview and/or any other competency examination must be communicated, promptly and directly, to tabulators or to the computer centre, and the successive examiners / evaluators must not be privy to these marks or grade.
- With respect to the Ph.D. programme, appropriate university bodies should decide as to which categories of faculty-members would be eligible to advise or guide doctoral students, and how many doctoral students could be assigned to different categories of faculty-members.
- University and college authorities, while finalising admissions, should take cognizance of 'reservation provisions' as announced by the central and concerned state governments, and take the required affirmative action.
- Following admission, university and college authorities should initiate measures, depending upon the need pattern of newly admitted SC, ST,

OBC and minority students, so as to organise remedial or bridge courses in language, communication, subject competency etc.

 Following admission, university and college authorities should take proactive action to communicate to newly admitted SC, ST, OBC, minority students, and students from low income families, (regardless of the level of their course-), the availability of tuition-waver, free-ships, loans and scholarships available to these categories.

4.8.13 Examination Reforms

Higher education in India has thus far been largely examination centered. Examination only at the end of academic session or year, more often than not, insulates students from the quest of knowledge, the excitement of discovery and the joy of learning. Often the annual examination, along with marks, percentages and divisions, leads to insensitive cramming up of superficial information. It is therefore not surprising that, in several instances, university certified degree holders are subjected to fresh written examination, before they are accepted for jobs in public and private sectors.

Most universities and institutions of higher education in Western Europe and North America base the assessment of their students wholly on "internal evaluation", following the principle, 'those who teach should evaluate'. However, considering the prevailing conditions in India, an adoption of this approach would be too radical or abrupt. Given these considerations, it may be more prudent that the assessment of the student performance be carried out through a combination of internal and external evaluation.

1. Continuous Internal Evaluation

Aiming to assess values, skills and knowledge imbibed by students, internal assessment is to be done by the concerned faculty member, department, school or the centre. All the certificate, diploma, under-graduate, post-graduate, M.Phil. and Ph.D. courses offered by a university, college or institute are to have specified components for internal evaluation(e.g. essay, tutorials, term paper, seminar, laboratory work, workshop practice etc.,). Internal assessment may be based on the following guidelines:

- Components of internal evaluation are to have a time frame for completion (by students), and concurrent and continuous evaluation (by faculty members).
- The evaluation outcome may be expressed either by predetermined marks or by grades.

- The evaluation report submitted by all the faculty members are to be reviewed, from time to time, by the concerned department, school or centre committee, in order to ensure transparency, fair play and accountability.
- Following the review by the department, school or centre committee, the outcome of the internal evaluation is to be announced and displayed on the notice board and /or website as per the decided time frame or academic calendar.

2. End of Semester Evaluation

This is to be carried out at the end of each semester, and will aim to assess skills and knowledge acquired by the students through classroom instruction, field work, laboratory work and/or workshop practice. The evaluation can be in form of written examination, laboratory work and/or workshop assignment. The evaluation process should be verified and transparent. Towards this end, the following steps may be adopted:

- All the students pursuing certificate, diploma, undergraduate, postgraduate and research courses have to undergo external evaluation at the end of each semester as per syllabi or credit schedule.
- With regard to practical and workshop assignment, the internal faculty may associate themselves with external examiners in the examination process.
- In case of written examination, whatever the format (objective type, essay type etc.), test paper could be moderated by committees proficient in the concerned subjects.
- Answer books or -sheets are to be 'encoded' (before being passed onto the examiner/evaluator, and decoded before tabulation).

3. Integration of Continuous and End of Semester Evaluation

The following points need to be considered for effecting the integration of continuous and end-of- semester evaluation:

- The integration procedure should be applicable to all the students pursuing certificate, diploma, undergraduate, postgraduate, M.Phil. and Ph.D. courses.
- University committees on the recommendations of Department committees and concerned faculty should discuss and decide on the relative weightage of continuous and end-of- semester evaluations. This weightage could be flexible and could vary from institution to institution.
- The weightage assigned to internal evaluation may range from 25 to 40 percent.

- Following the integration of internal and external evaluations, the results may be expressed either in marks, grades or both, as per the policy of the university.
- It will be useful if universities try to go beyond 'marks' and 'divisions' and, in keeping with the global trend, assign Cumulative Grade Point Score (CGPS) which would place students into overlapping broad bands.
- The CGPS may be based on a 5 point or 10 point scale and it could vary from institution to institution.
- As soon as the integration of internal and external evaluations has been completed, the result should be announced, in keeping with the academic calendar, to facilitate students' academic or occupational pursuits.

4.8.14 Leadership Development for Educational Administrators

The twin approaches of high quality leadership and appropriate governance structure are major ways of improving the quality of higher education. Institutional heads are generally chosen from among academics with certain expectations. The Vice-Chancellors come across a plethora of situations requiring innovative handling. Hence there is a need for professionalizing academic administration by building the competencies in the domains of leadership, and strategy, developing relevant systems and processes, and inculcating appropriate skills and attitude at all levels in the administration. There is an equal need develop leadership acumen in current incumbents at various levels of university administration (VC, Pro VC, Registrars, Deans, and Heads) in the institutional hierarchy. There is equally a need to create a leadership pipeline in each institution to prepare for future leadership requirements. Presently, faculty members assume such responsibilities through rotation based on seniority without any formal exposure or induction to the management domain which can help them to effectively handle their roles and responsibilities. Benchmarking of standards and the academic growth of a nascent institution are dependent upon the kind of leadership that receives. Hence the importance of the appointment of the first director/Vice Chancellor/principal cannot be overemphasized. States need to invest resources in developing a talent pool of such leaders.

4.8.15 Research University – an introduction

Research Universities stand at the center of the 21st Century global knowledge economy and serve as flagships for higher education worldwide. They are elite, complex institutions with multiple academic and societal roles. They provide the key link between global science and scholarship and a nation's scientific and knowledge system. They are truly central institutions of the global knowledge society (Salmi 2009) $^{\rm 100}$

As national institutions, research universities serve only a minority of undergraduate students, usually the nation's best and brightest, and employ the best-qualified academics. They are the principal universities for educating students at the doctoral level and produce the bulk of the research output. Smaller countries may have only one Research university, whereas larger nations may have many, although they are only a minority of the total tertiary education institutions in the country. In the United States, for example, there are perhaps 150 globally relevant research universities out of its 35000 tertiary institutions and China about 100 among its 5,000 or so post secondary institutions.

Research universities produce the bulk of original research – both basic and applied, in most countries – and receive the most funding for research. The organizational structure, reward structures, and indeed, the academic culture of these universities are oriented towards research. Their budgets are larger than those of other universities and the cost per student is greater. Their financial support - largely from public sources in most countries - must be sustained if the institutions are to succeed and academic freedom is central.

Within the tertiary education system, research universities play a critical role in training and developing professionals, high-level specialists, and scientists and carrying out research needed by the economy and in generating new knowledge to support of the national innovation system (World Bank 2002). Research universities are considered among the central institutions of the 21st century knowledge economy. Research universities are considered among the central institutions of the 21st century knowledge economy.

The set of factors at play in top research universities compromises:

- (a). A high concentration of talent (faculty members and students)
- (b). Abundant resources to offer a rich learning environment and to conduct advanced research
- (c). Favorable governance features that encourage leadership, strategic vision, innovation and flexibility.

¹⁰⁰ Salmi, J. 2009. The Challenge of Establishing World-Class Research Universities. The World Bank.
4.8.15.1 The "Spirit" of the Research University

A research university is not only an institution, but also an idea. Creating and sustaining an institution based on a concept is not easy. At the heart of the research university is its academic staff, which must be committed to the idea of disinterested research – i.e., creating knowledge for its own sake. A research university is elite and meritocratic in such areas as hiring and admissions policies, promotion standards, and degree requirements for staff members and students. Another central element of the spirit of the research university - alongside its staff members and students – is the principle of academic freedom (Shils 1997b; Altbach 2007). Without academic freedom, a research university cannot fulfill its mission, nor can it be a world-class university. The key element of academic freedom is the concept of open inquiry as a core value of the university.

Research university professors typically have modest teaching responsibilities; they are given ample time to undertake and publish research. These universities must include those who teach and do research (representatives of the academic community) in the decision- making (governance) bodies.

4.8.15.2 Need for Research Universities

The states already have a well-functioning system of tertiary education. The majority of enrolment in tertiary education is in the State Universities and colleges. The present research scenario in higher education institutions in India is quite inadequate in its funding as well as output. The share of research by Indian higher educational institutions is very low by global standards. While the Central Government has decided to create a few innovation universities, dedicated research universities are required in each state to kick start the research ecosystems in various states. Teaching and research are inseparable and a blending teaching with research will improve the quality of teaching and have quid pro quo benefits for both. A vast majority of the existing state higher education institutions are only engaged in teaching and have not leveraged their research strengths in improving their quality.. Resource crunch is one of the factors inhibiting these institutions from taking up innovative research. The lack of access to enough talent to sustain this research is also a bottleneck. However, these institutions have an untapped potential for initiating research - given their already well-established systems and procedures and compliance with the regulatory framework.

4.8.15.3 Setting up of Research University

Each such research university can be "seeded" and nurtured through the Scheme. In view of the timelines of the Abhiyan, it is more pertinent to upgrade existing institutions to the status of "research universities" rather than creating those institutions afresh.

These can be selected from the existing universities that have achieved a critical standing in terms of establishment, enrolment, rating, research etc. Their academic dimension can be gauged from their well-functioning number of departments, enrolment of research scholars and research output. In order to qualify as a research university, the university should have demonstrated an aptitude for research and innovation through the presence in more than one department; whose work research has been acknowledged globally. The institute should have demonstrated its research bent by having running collaboration with a few industries. There should be a significant percentage of its students engaged in research in order to continuously engage the senior academia in these institutions towards research. The university should come up with agreed benchmarks on governance and possess a high degree of compliance with the regulatory framework in order to qualify for becoming a research university

4.8.15.4 Nurturing the Research University through the Scheme

RUSA would encourage and support the State's endeavor to create Research Universities by improving its infrastructure, creating enabling governance structures which would help achieve academic excellence, attract high quality talent, forge linkages with industry, peer institutions, the academia and other stakeholders and facilitate resource mobilisation for continued enhanced research activities.

The foremost criterion for a University to be termed world class is the quality and excellence of its research, recognized by society and peers in the academic world, which constantly stretches the frontiers of knowledge, contributes to the development of the knowledge society, and attracts outstanding faculty and top students towards it. Consequently, the synergies between teaching and research have to be exploited to create quality institutions.

The University should come up with academic collaborations with foreign institutions to further assimilate state-of-the-art developments in its fields of

specialization. The funding should take care of student aid and faculty support to actualize such collaborations.

The University should attract talent not only in its faculty but also in its research scholars. Talented faculty can be drawn from the international pool including the Indian diaspora through more attractive service conditions and perks, scheme of joint appointment, skill up gradation schemes etc. More attractive scholarships/ free ships/ fellowships/ other amenities should be offered to the research scholars to imbibe them in research at a younger age. They should have more exposure to industry and globally renowned institutions.

The Research University should be supported with complete autonomy in matters of administration, academics and finances for development of a vision for the future. The research corpus can be managed as per the academic needs of the University; decided through its Governing and Academic Council. Such Councils should be broad-based to include representatives from industry, globally renowned institutions and peer academic institutions.

4.8.16 Adherence to the norms set by regulatory bodies

Regulatory bodies have set certain norms for maintaining quality and standards for institutions that come under their purview. These norms are subject to review by them and are modified from time to time. It is essential that institutions that seek to get support under RUSA must adhere to the norms and standards set by the regulatory bodies.

4.9 Internationalization in Higher Education: Proposed future directions

Internationalization can be defined as the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of higher education at the institutional and national levels. When examining the issue of Internationalization of Higher Education in India, it is important to note that the term is a very broad one, encompassing several different and still developing trajectories that are currently under debate at various levels in the country. For instance, as we all know, Parliament is currently considering legislation that will allow foreign universities to establish their campuses within the country. While this certainly comes under

the broader ambit of the idea of Internationalization, it is important to clarify that the particular idea under consideration in this report, is the importance of opening up access to higher education in specific institutions in India to enable an enriched relationship with both international students and faculty. This report is concerned with examining the rationale behind encouraging this process, while also taking stock of the current situation and further identifying key areas that need attention, for its full potential to be realised in the most timely and effective manner.

4.9.1 Rationale

The challenges faced by the Indian Higher Education Sector today are indeed numerous, as it struggles to adapt to an increasingly globalized world order. There was unanimity in declaring that the process of globalization is the single most important factor that has made it imperative for our institutions to rise to the occasion and evolve strategies that will allow them to retain gifted Indian students as well as attract international students. In the current scenario we see that higher education in India is facing problems in multiple areas covering both qualitative and quantitative issues. The lack of resources devoted to Higher Education in terms of faculty development and research support, as well as outdated and cumbersome administrative and governance policies have meant that there has been a steady exodus of Indian students to foreign universities.

This is however, far from being an irretrievable situation. It was pointed out that there are studies that show that most Indian students abroad are quite eager to come back to the country if proper steps are taken to allow them to actualise their potential here. It is also true that a globalized economic scenario offers us a unique opportunity to establish India as an education destination for international students as we offer certain unique advantages, including affordable, quality education in a supportive atmosphere strengthened by historic cultural and political ties. Therefore it seems obvious that a systematic approach to the internationalization of Higher Education system in India's own interest. The specific rationales that have been put forward are:

1. Enhancing capacity and efficiency: Internationalization of higher education in India can help in expanding and upgrading financial, technical and human resource capacity by bringing in new providers, fields of study, and models of education. It can also generate additional resources through foreign investment flows and export earnings. This increased income can be used to cross-subsidise domestic students as well as increase efficiency of campuses.

- 2. Improving standards and quality: Internationalization can help to enhance standards of Indian institutions by updating curriculum design, content etc. It can also ensure that the faculty have the opportunity to update their skills and facilitate cross-border collaborative work on cutting edge issues and problems facing the industry. It can also lead to an upgradation of facilities as well as providing the impetus to the adoption of international standards and practices, such as mutual accreditation and equivalence schemes. This is crucial for the creation of a workforce which can handle the pressures of the global market.
- 3. Competing in the Global Market, The Demographic Dividend: The foremost reason for internationalization of higher education is globalization, for which the free flow of information is essential. As India integrates with the world through trade, investment and technology, its ability to compete in the international market will depend on having a competitive, productive and high quality workforce. Internationalization will mean an upgradation of research and teaching facilities as well as the governance models which will assist in the creation of this workforce. Internationalization can in fact allow India to realise its Demographic Dividend and turn its educated (but frequently not skilled) workforce into one that is highly skilled, efficient and integrated into the global marketplace.
- 4. Shaping International Relations: Internationalization of higher education can be an important means of expanding and improving international relations in an era of growing interdependence among countries. By facilitating flows of trade, investment, information and technology between India and other nations, it can help foster commercial relations between them and also play an important role in the context of India's growing number of comprehensive bilateral and regional agreements. Engagement with developing countries and LDCs in particular, through the promotion of student mobility etc., can help build long-term relationships and goodwill.
- 5. Establishing a Regional Identity: A globally oriented higher education system would also promote a greater understanding of India, its culture and evolving economy and society, among foreigners. It would help India establish its regional identity through the interaction of students from very different backgrounds/demographics/nationalities, as well through collaborations among faculty members.

6. Shaping India's International reputation as a central node of a everexpanding network of knowledge and training: As has been pointed out earlier, India has several advantages when it comes to attempting to be a hub and nodal centre for educational excellence, particularly in regard to nations who share a history of productive cultural exchange with us (like the countries of South-East Asia and Africa) and whose people are already familiar with our cultural context as a result. This comfort level and shared history it was felt will be a particularly vital idea when portraying India as a potential hub for international education and research. We already enjoy a significant reputation regarding teaching and research in certain fields – engineering and IT industries come to mind – and Internationalization would allow us to leverage that into attracting talent (both in terms of students and faculty) to those institutions and further increasing our reputation as firstly a regional (and hopefully eventually global) nerve centre in the global mindscape of research and educational exchange.

It should also be noted that we can offer not just high quality education but also offer in more accessible way in terms of economics than Western universities. Both in terms of what students have to pay the Universities in tuition fees and the day to day cost-of-living, India offers a much more accessible package to prospective students. This is a very vital economic aspect that cannot be overlooked. Indeed it should be an important part of any policy formulation when talking about pushing for greater Internationalization in Higher Education as it is one of our strongest trump cards.

- 7. Alleviation of faculty-crunch: The higher education sector in India is currently facing a shortage of qualified and motivated faculty. This situation can be alleviated in the short-run through Internationalization which would facilitate faculty as well as student inflow and outflow. Other measures that could be adopted can be creating incentives that would stop faculty to switching to the private sector, encouraging research scholars abroad to return home, and working to increase the number of PhDs produced by our premier institutions to foster an atmosphere of research excellence.
- 8. Ease of initiating process as Government funding would be minimal: The process of internationalization could be more easily implemented than most government backed initiatives as it involves a relatively small amount

of financial backing and will in fact lead to a great injection of money into the educational sector, which can then be used to subsidize students from weaker sections of society.

4.9.2. Current Scenario

4.9.2.1 Historical Note

It is important to understand that the current scenario in India has to be seen in the context of the way Internationalization of Higher Education has been approached in the past, as this has been an ongoing process for some years now. The Government has also worked with various international institutions to set up centres of educational excellence, like the IITs and IIMs, as well as several State Agricultural Universities in the 1950s and 60s. The need to promote the Internationalization of higher education was also realised by the UGC in the mid-1990s, when it appointed a Study Group to examine various aspects of the situation. There have been several developments after this including the convening of two Roundtables, with international participation, at Mysore in 2001 and Amritsar in 2002, out of whose deliberations were framed at the Mysore Statement and the Amritsar Statement respectively, which are important policy documents in this area. Further in 2003, the UGC identified the internationalization of higher education as a thrust area. It launched PIHEAD (Promotion of Indian Higher Education Abroad) as a coordinated national initiative.

However this attitude towards Internationalization has suffered a decline in the years since. It is important to be aware of the new economic realities that will affect any initiatives in this direction. Given India's much more powerful economic status, it is unlikely that foreign institutions will fund higher institutions of learning in the country. But conversely our economic strength will mean that we will find more countries wanting to partner with us in these endeavours. We can perhaps adopt a similar stance towards countries with less developed educational apparatuses as the US, UK and Russia did in the past, and build-up similar research and human capital.

4.9.3. Current Challenges

- 1. Lack of Data: Any policy making in the area of Internationalization of higher education is constrained by very little data on the basis of which future directions may be charted out. There is a dire need to have exact data regarding both international students in India and Indian students abroad so that specific trends may be properly examined.
- 2. Lack of Awareness of International Scenario: Policy makers in India seem to be unaware of the specific international developments, especially concerned with student flows that will have a direct impact on any formulations regarding internationalization of higher education. We must obviously be aware of the current international scenario as any policies made in a vacuum are likely to be counter-productive and harmful. India needs to take this entire situation very seriously and act in a responsible, timely and proactive fashion in order to make the correct policy decisions.
- **3.** Lack of Infrastructure: There is lack of information about the educational opportunities, international students may avail of in India is a major hurdle in the current scenario. The lack of transparency in processes, unclear, unhelpful administrative policies and the lack of any central information dissemination or assistance rendering mechanism for foreign students, all form a massive block to the internationalization of higher education. Further, it will be very important to develop appropriate infrastructure in terms of hostels, support staff etc.
- **4.** Lack of clarity in Policy formation: While certain policies regarding Internationalization of higher education are embedded in long-delayed legislations (like the Foreign Education Providers Bill) it is still imperative for a broader policy framework to be put into place regarding all the above points so that Indian Universities may become better equipped to deal with the process of Internationalization.
- 5. Lack of Anticipation of Global Developments: India has been tardy in realising the true potential of the Internationalization of its higher educational sector in terms of policy, infrastructure, programme formation, awareness etc., and needs to do a lot of catching up to make up for past mistakes and make full use of the current scenario.

4.9.4. Future Directions

While the government needs to be proactive and push through vitally needed legislation to deal with the larger policy issues regarding Internationalization of higher education, there are also several other measures that may be taken at a lower level in order to facilitate the process including data collection, infrastructure building and pilotprogramme deployment, which may be expanded at a later date and used as case studies when formulating broader proposals. The following issues needs to be addressed.

- 1. Administration of Detailed Survey: As has been remarked on earlier, it is vital to any future policy formulation that we have accurate figures regarding the current extent of Internationalization in India. Amongst other data it is important to know how many international students are currently pursuing courses in India, which courses they have enroled for, the number of Indian institutions having "branch campuses" abroad, the number of foreign universities and postsecondary institutions working here at present, their enrolment numbers etc. It is also required to set up a central agency to oversee this data collection. This data can be made part of the Annual Report of educational institutions and collated so that this information can be a part of policy inputs. It would include:
 - a. Student Flows
 - b. Investment/other form of local presence
 - c. Understanding different markets
- 2. Development of Streamlined Administrative Policies: One of the biggest hurdles to internationalization of higher education is the lack of clarity in the administrative policies governing the mobility of foreign students in India. There needs to be a serious evaluation of the policies governing the issue of Visas to students and faculty who are desirous of taking admission/teaching and doing research in Indian universities. It is very often the opaqueness of the policies regarding issue of Visas, the documents required for the process and long delays in granting the same that discourage a greater number of students from enrolling in our Universities. It is of vital importance that Embassies be equipped with clearcut policy guidelines as well as exhaustive information regarding various courses offered by Indian Universities so that they may guide interested students in the best possible manner. More regional scholarship schemes may also be drafted to encourage mobility, especially targeted at the SAARC and African nations.

- **3.** Development of Infrastructure at University Level: As has been commented upon earlier, in order to facilitate the smooth transition of international students into campus life in India special attention has to be paid to the establishment of international hostels, assistance cells, support staff etc. This will require significant amounts of resource allocation and proper planning, so that international students may find the whole experience a rewarding one. Also related to this point is the need for putting into place processes whereby course credits may be transferred between Universities abroad and in India. This will mean that Indian Universities will have to put international accreditation processes into place and adopt international teaching and governance policies in order to be able to collaborate with foreign institutions.
- 4. The Study India Programme: This would be useful in relation to the developed world like USA, Canada, UK etc. This could also be popular among students of Indian origin who would like to get in touch with their roots. This type of programme already exists in the Hyderabad Central University, which may be examined as a pilot programme. Those universities who offer Study India Programmes should be encouraged to also send their students abroad as part of Study Abroad programmes and that adequate resources should be given to them to facilitate the same.
- **5.** Encouraging Global Partnerships: Because the level of infrastructure required to host international students is quite complex, it is also recommended that Indian Universities enter into strategic partnerships with their international counterparts in order to facilitate various exchange programmes that allow the sharing of ideas, experiences and research without overtaxing existing infrastructure. Some of these initiatives could be:
 - a. Twinning Programmes: The creation of joint curricula and sharing of academic resources between Indian and international universities can result in especially productive programmes leading to a dynamic exchange of ideas without needing vast resource allocation.
 - b. Student and Faculty Exchange Programmes: These programmes are especially productive in encouraging a dynamic exchange of ideas and research for both students and faculty. The experience of taking courses, teaching or conducting research in a new environment has been found to be very rewarding and these kinds of programmes need to be encouraged on a wider scale. While it perhaps is easier to facilitate in areas like Business studies, Engineering or IT, it is also important to pay attention to areas like Agriculture.

- c. Strengthening the institutional framework for equivalence: In order to facilitate greater mobility of students from abroad into Indian universities and vice a versa, through collaborative arrangements such as twinning and joint degree programmes etc. the institutional mechanism for granting equivalence to academic courses, degrees etc. needs to be strengthened.
- 6. Development of English Language Programmes: This is an area that has the potential to be extremely productive while thinking about the scope of Internationalization of higher education as many foreign students who choose to come to India do not have a background of education in English. Since knowledge of English is now nearly indispensable in a global context and since most of higher education in India is conducted in that medium, our educators have a natural advantage. The faculty in the concerned university then can - along with the specific course that the student has enroled for – offer courses in communication and writing skills in English. These courses have been seen to be extremely popular among foreign students and can be leveraged to best effect and the course showcased as part of an all-round holistic educational experience that would perhaps be more attractive than a course with a single focus.
- 7. Skill Development: This is a huge need in India as there is a severe lack of vocational training being imparted. It has been recommended that a system like the Community Colleges of America be adopted in context of Polytechnics, and indeed some progress in this area has taken place in the XI Plan, administered by IGNOU. The process needs to be continued and expanded.
- 8. Involvement of Faculty: Along with Faculty Exchange Programmes as outlined above, it has also been noted that a large number of distinguished faculty abroad is of Indian origin. The practice of inviting them to teach for a semester or even deliver lectures whenever they are in India should be encouraged. Since technology is fast changing the way we think about communication, the potential of using tools like Skype for long distance academic collaboration should be explored. In addition, young and mid-level faculty must be given opportunities to go abroad either on short term teaching assignments or research or syllabus formation projects. This is because faculty is the key to implementing the policies on internationalization of higher education and its exposure to different universities is required for the purpose.

Thus, it is observed that while the current scenario concerning the Internationalization of higher education in India shows it to be an area ripe with opportunity, it is also clear that without a speedy, yet properly thought out policy formulation and implementation, India may yet miss out on capitalizing on it. India has several natural advantages when it comes to emerging as a central node or focus point for international students looking for affordable, accessible and cutting-edge opportunities in the field of Higher Education. India needs to leverage these advantages to the best possible effect and put into place effective mechanisms that allow us to truly make a mark on this emerging landscape.

4.10. Vocationalisation of Higher Education

India has a population of over 1.2 billion and a workforce of 460 million. To be able to provide employment to such a large number of people is a challenge, which becomes even more daunting as the population grows by more than 1.6 % every year. Unemployment by the current daily status measure is 6.2% of the labour force (NSSO Round 2009-10), which amounts to 27.6 million.

In terms of demographics, almost 35% of Indians are younger than 15 years of age, whilst 18% fall within the age group of 15-24. The median age of India is 24 years, making it one of the youngest populations in the world. 54% of India's rural workforce is self-employed (mainly in agriculture, 39%, but a significant share in non-agriculture, 15%), many of whom remain very poor. In urban areas, the self-employed constitute 42.6% (NSSO 2007-08), among whom the incidence of poverty may be lower, but high enough to be a source of concern. Nearly 36% in rural areas are either agricultural or other labour, usually casual workers. There are a negligible number of regular employees in rural areas, and in urban areas only about 13% are regular employees, of which two-fifths are employed by the public sector. More than 90% of the labour force is employed in the "unorganized sector", i.e. sectors which don't offer social safety and other benefits of employment in the "organized sector."

We churn out a large number of graduates from colleges every year. This result in excessive demand for white-collar jobs that are unavailable in the numbers required. This skewed demand–supply situation also means that individuals are forced to accept jobs that are below their aspirations and are paid less than the commensurate remuneration, thus contributing to the already growing discontent and dissatisfaction. Jobs do not grow at the same rate as the potential workforce, thereby breeding

unemployment and in turn discontent. Even for the jobs that are available, a large number of our educated youth are unemployable as per certain surveys.

4.10.1 Impediments in Implementation of Vocational Education

The major bottlenecks impeding the movement of larger numbers of students to vocational education, from the implementation perspective in the States, include the following:

- i. Low or non-existent linkages with industry. Vocational education would be meaningful and more popular, only if the courses, curriculum as well as learning outcomes are acceptable to the potential employers. Hence the foremost requirement is the forging of a partnership of the educational and vocational training providers with industry/employers
- ii. iThe results of skill gap analysis are not known to the States. In the absence of these the States are unable to gauge the projected requirements. The sunrise sectors are quickly moving towards assuming a sizeable, important role and responsibility in the Indian and global economy. Industries are moving rapidly forward and are up-scaling but at the same time are devoid of skill and quality benchmarks. Hence a needs analysis is required at national and the State level as well as a mechanism for laying down industry driven standards for occupations.
- iii. The mind set of Indian parents and students is focused on pursuing 'degree' qualifications and higher education, which often fall short of requirements of employment.
- iv. There has been a decline in the share of agriculture in total employment from 57% in 2004-05 to 53% in 2009-10, but agriculture contributes only 17% to GDP. It is very important that the skills of these people are enhanced, so that their productivity and incomes can rise. Agriculture and allied sectors need to be brought within the NVEQF, to increase productivity though modern technology and stem the rural urban migration.
- v. Optimum development of all sectors is required for a country the size of India, viz agriculture, manufacturing, services and entrepreneurship, to be able to generate employment for the population and achieve the targets of growth.

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- vi. Having established the need for a revamped vocational education, the first and foremost issue to be tackled is availability of qualified vocational teachers for the various levels of qualifications envisaged.
- vii. Youth of the less developed (industrialised) States aspire to move to more 'developed' States, in search of better employment options. In the present scenario this mobility is and often limited to low end jobs. The development of nationally recognised standards and qualifications as envisaged in the National Vocational Education Qualification Framework (NVEQF) would be help fulfill the ambitions of the youth.
- viii. The skills imparted should be gender sensitive in order to empower women. At the same time gender barriers for taking up certain courses need to be broken to make way for a level playing field for boys and girls.
- ix. The provision of Recognition of Prior Learning in the NVEQF needs to be formalised at the earliest so that the expertise of the traditional artisans/ craftsmen/experts can be mainstreamed and their skills honed further. They would be excellent master trainers too. This would lead to preservation and conservation of our rich heritage.

4.10.2 Objectives

Vocationalisation of higher education would seek to achieve the following broad objectives;

- To create a skilled and productive workforce that matches international standards of quality and productivity through integration of competency based vocational education and training with the general education
- To facilitate flexible learning and competency building paradigms.
- To facilitate the improvement and diversification of skill set of the workforce, based on a defined set of standards (SOS)
- To enable progression to a university level degree through a mechanism of credit accumulation and transfer and bridge courses.

4.10.3 Approach

Vocational education at the higher education levels should ensure:

- i. A course credit method as well as horizontal and vertical mobility in the courses leading to qualifications at higher levels is desired.
- ii. A vast majority of the candidates seeking progression in vocational education are likely to be working people. Hence the time frame provided for completion of credit requirements for award of diploma / Degree should be open ended.
- iii. Candidates may be interested in completing credits by taking modules in different but related skill sets. Working people may have to relocate for taking up courses as flexibility through open and distance bearing will be provided. Hence flexibility would need to be provided for enrolment of various modules at different institutes.
- iv. It may not be possible to provide a variety of skill sets through a single Institution. Other academic institutions, polytechnics, ITIs, private institutes and also industries with their available infrastructure should become the knowledge providers.
- v. To avoid language becoming a barrier in progress of student at higher levels, the different modules may be taught in different languages. However all students should be encouraged to take least one English language module in the first two levels of the proposed program.
- vi. Traditional Universities in India generally do not provide much flexibility in their curricula and functioning. The higher level of flexibility envisaged in vocational programs can only be provided if are sensitized and reoriented.
- vii. Universities providing vocational education should aim to offer degree and diploma programmes in vocational higher education. Such universities should emphasize specialised teaching learning pedagogy with focus on skill based and practical learning/training. The curriculum should emphasize life coping skills and general educational, English competency, etc. The University should develop a credit accumulation and transfer system to enable students to pursue opportunities for life-long learning and skill development. Industry participation must be ensured in governance and curriculum design.

Industry collaboration should also be sought for funding, placements and apprenticeship for students and in-service training for employees of industries for regular skill development and up-gradation. An important aspect of vocational education should be teachers training.

4.10.4 Vocational Education and RUSA

Under RUSA the following support to vocational education can be considered.

- Funding of universities to vocationalise higher education and strengthening governance, management and financing for vocational education
- Modernization of management and governance policies, procedures and instructional structures, design and implementation of an effective mechanisms for monitoring and evaluation of the projects, support for project coordination, implementation and management
- Developing educational standards and core curriculum as the basis for the institutional to design new program, preparation of teacher-training programs for design and delivery of a competency based and modularized curriculum
- Enhancing skills delivery including development and delivery competency based training and continuous skills upgradation
- Counseling for choice of training and career planning
- Infrastructure support towards the creation and delivery of new programs
- Promoting industry academia partnerships.



Institutional Structure for RUSA

5.1 National Level Implementation Arrangements

The composition and functions of the four bodies, namely the RUSA Mission Authority, Project Approval Board, Technical Support Group and the Project Directorate (in MHRD) that would exist at the central level for overall guidance, policy decisions and project management, coordination and implementation are described below (Figure 65):

Figure 64 Institutional Structure for RUSA

National Level	 RUSA Mission Authority Project Approval Board Special Purpose Vehicle (will create and run the Techincal Support Group) Project Directorate (in MHRD)
State Level	 State Higher Education Council Project Directorate (in State Government) Technical Support Group
Institutional Level	Board of GovernorsProject Monitoring Unit

5.1.1. RUSA Mission Authority

(i) Composition

The Ministry of Human Resource Development (MHRD) will constitute a Mission Authority with the following composition:

- Union Human Resource Minister Chairperson
- Member, Planning Commission (in charge of higher education)
- Secretary, Department of Higher Education, Ministry of Human Resource Development Vice-Chairperson,
- Chairperson UGC, Co Vice Chairperson
- Chairperson, AICTE,
- · Chairpersons of the SHECs of all states,
- Three Experts in the field of Higher Education,
- Financial Advisor to MHRD,
- Chairperson, MCI
- Chairperson, BCI
- Secretary, Agriculture
- Secretary, Culture
- Secretary, Health
- Secretary, S&T
- Secretary, Sports
- Representative of Ministry of Finance
- Joint Secretary (Higher Education) Member Secretary

(ii) Functions

The RUSA Mission Authority, besides providing guidance and directions for maximizing gains from the project, will:

- Delineate overall policy and planning
- · Review functioning of Project Approval Board
- Allocate funds to Project Approval Board for release to States
- Commission and Review findings from policy reform, thematic and evaluation studies
- The RUSA Mission Authority will meet once in every six months

(iii) Disclosure

The Minutes of all RUSA Mission Authority meetings will, for ensuring transparency in selections and other decisions, be regularly published on its website.

5.1.2 Project Approval Board (PAB)

The Project Approval Board will have the following composition:

- · Secretary (Higher Education) Chairman,
- Chairman UGC, Co-Chairman
- Vice Chairman, UGC
- Chairman AICTE,
- Secretary, UGC
- Chairman SHEC of the concerned State,
- Two experts in Higher Education Sector,
- · Financial Advisor in MHRD,
- Advisor (Higher Education), Planning Commission
- · Joint Secretary (Higher Education) Convener

(ii) Functions

The Project Approval Board will carry out the following functions:

- Examine, appraise and approve State Higher Education Plans
- · Assess performance of states and institutions
- Approve release of funds

5.1.3 Special Purpose Vehicle & Technical Support Group

Rationale

A Special Purpose Vehicle (SPV), which will be a not-for profit entity will be created for helping MHRD in implementing RUSA. It will be a Section 25 company since it provides a better model of internal governance as compared to a society constituted under the Societies Registration Act. It also provides for better accounting of flow of funds and appointment of statutory auditors. A Section 25 company model would provide necessary flexibility in decision making and better fund management for RUSA.

Its advantages are that a wide range of activities can be taken up. Though complex, its objects can be modified if need arises, and providing services and trading on a noprofit basis is possible. The management is with the board of directors and prevention of takeovers is easier than in a society. However, under company law, the formation and regulation procedures are more complex thereby providing the necessary checks and balances.

Financial Structure

The SPV will have a paid up share capital of Rs. 1.00 crore. The company will be owned 100% by Government of India.

Institutional Structure



Governance Structure

SPV will have a Board of Directors (BoD) with nine members as follows.

- 1. Chairman-Eminent Academic (non-executive) to be nominated by MHRD
- 2. Secretary, Department of Higher Education Member
- 3. Chairman UGC-Member

- 4. Chairman AICTE-Member
- 5. National Mission Director Managing Director
- 6. Financial Advisor, Department of Higher Education Member
- 7. Chief Executive Officer of the TSG Member
- 8. Higher Education Specialist- Member
- 9. Higher Education Specialist- Member

The Chairman of the BoD and Higher Education Specialists as Members will be appointed by the Central Government. In addition the SPV will also have representatives of State on a rotational basis for a fixed term.

The BoD of the SPV will form a Technical Support Group (TSG) to carry out specific functions as below in addition to any other function delegated or assigned to it by the BoD.

Functions of SPV

The SPV is created to discharge the following functions:-

- Ensure professional support to the RUSA Mission Authority in terms of monitoring of flow of funds, critical scrutiny of State Higher Education Plans and cost estimates as well as providing efficient managerial support to the entire project. For this purpose the SPV would create a Technical Support Group (TSG) by hiring best available academics/professionals/domain experts. The TSG would function under the over-all control of the SPV.
- 2. Tap the Corporate Social Responsibility (CSR) funds available with Public and Private Sector Undertakings.
- 3. Ensure channelizing and leveraging of funds/resources through donations, grants available from other entities into RUSA.
- 4. Appoint an MIS provider
- 5. Provide efficient, reliable and professional technical support to the RUSA Mission Authority, Project Approval Board and National Project Directorate through MIS, evaluation and technical studies/field monitoring etc.
- 6. Appoint the Chief Executive Officer of TSG and approve appointments of Finance Officer and Administrative Officer of the TSG.

Functions of the TSG

The following will be the functions of the TSG.

- · Monitor flow of funds and information,
- Appraise State Higher Education Plans and engage with SHECs.
- Engage with MIS provider to plan, coordinate and manage MIS

- Generate MIS reports as required
- Conduct evaluation studies
- Provide all operational, technical, logistical and managerial support to RUSA Mission Authority, Project Approval Board and National Project Directorate
- Appoint consultants for project monitoring, designing, technical inputs and any other purpose and for a period and on such conditions of engagements as deemed necessary

TSG Secretariat:

The TSG Secretariat will be headed by a Chief Executive Officer and supported a Finance Officer and an Administrative Officer.

The Chief Executive Officer will be appointed by the BoD of the SPV. The Finance Officer and Administrative Officer will be appointed by the Chief Executive Officer with the approval of the BoD of the SPV.

The Chief Executive Officer will appoint consultants for any purpose and for a period and on such conditions of engagements as deemed necessary.

5.1.4 National Project Directorate (NPD)

This will be located within the Department of higher education (DHE) in the MHRD and headed by the National Mission Director (NMD).

(i) Composition

- · Joint Secretary (Higher Education) National Mission Director,
- One Deputy Secretary/Director rank officers, (from existing strength)
- Two Under Secretary rank officers, (from existing strength)
- Adequate support staff

(ii) Functions

- · Holding meetings of the Mission Authority and Project Approval Board,
- · Overall project fund management,
- · Overseeing project implementation at the central and state levels,
- · Policy inputs for Mission Authority,
- Maintain statistical data and MIS reports,
- Engage project auditors as required

5.2 State Level Project Implementation Arrangements

The project would be steered in each states/UTs through an institutional mechanism called State Higher Education Council. The SHECs would be supported in turn by the Project Directorate (created by the State Government) and State TSGs. They would report to the SHECs and will be directly responsible for management, coordination, implementation and monitoring of the project at the state/UT levels.

5.2.1 State Higher Education Council

The formation of SHEC forms the primary block towards building a sound planning and funding mechanism for higher education at state level. Given the number of state universities and the large number of students they cater to, it only makes sense to have state as the unit of planning for higher education. State universities, numerous as they are, cannot be monitored though a central system. Also, Center only has a partial role in funding these institutions while States provide the rest of the funding. The lack of coordination between States and Center produces an information gap that leads to faulty resource planning and allocation. The states have often expressed their need to stay informed regarding central allocations to state institutions. Thus, it is necessary to create SHEC as a body that is at an arm's length from the state as well as center, synergizes their resources and fulfills these functions of planning, monitoring, quality control and co-ordination at the state level.

The SHECs would be responsible for planned and coordinated development of higher education in the State and to foster sharing of resources between universities, benefit from synergy across institutions, lead academic and governance reforms at the institution level, establish principles for funding institutions, maintain a databank on higher education and conduct research and evaluation studies.

(i) Composition

The composition of State Councils should reflect the needs and diversity of States for planning and requirement in the higher education sector. Given below is the description of the broad contours of the recommended institutional architecture of State Councils of Higher Education. The State Higher Education Council should consist of fifteen to twenty five members; each with a term of 6 years, of whom one-third will retire every two years. The composition may be as follows: -

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- 1. Chairman, preferably an eminent Academic/Public intellectual with proven leadership qualities
- 2. Vice Chairman must be an eminent academic administrator with proven record (rank of a Professor) In case the chair is a non-academic person. In other cases it could be a professional from industry etc., with sufficient experience in the sector.
- 3. Member Secretary, an eminent academic of the rank of Professor-Chief Executive.
- 4. State Project Director
- 5. Ten to fifteen members, individuals representing fields of arts, science and technology, culture, civil society and industry and vocational education and skill development
- 6. Three Vice Chancellors of State Universities and two Principals of autonomous/ affiliated colleges
- 7. One nominee of the Government of India
- At any point in time, seven members of the Council should be from the state and three members must be individuals of national eminence (outside the state). Each member will have a term of 6 years; 1/3rd of the members will retire every 2 years. The existing council will nominate 3 new members every 2 years.
- The Council must meet at least once every quarter. The Quorum for the Council meetings shall be 1/3rd of the strength, including the Chairman and Member Secretary.

(ii) Search cum Selection Process

- Chairman will be selected by a committee consisting of Chief Minister of the State, Speaker of the Legislative Assembly, Leader of the Opposition on the basis of a recommendation of shortlisted candidates made by a search cum selection committee.
- The Search cum selection committee will be three member committee of very eminent academic/public intellectual with proven record and integrity. The State Council will nominate two members while the state will nominate one and the state nominee will be the chair.
- The Chairman will have one non-extendable term of five years. The removal of the Chief Executive will be through a vote of non-confidence expressed by at least 2/3rd numbers present and voting with a quorum of 3/4th members.

• Vice Chairman :

A search committee of three members will appoint the Vice Chairman. The committee will consist of the Chairman of the council (as a chair) and two other members one nominated by the State council and one by the government. The Vice Chairman will have one non-extendable term of five years. The Vice-Chairman may be removed by the Chairman on the recommendation of the Council.

Member Secretary

A search committee of three members will appoint the Member Secretary. The committee will consist of the Chairman of the council (as a chair) and two other members one nominated by the State council and one by the government. The Member Secretary will have one non-extendable term of five years. Member Secretary may be removed the Chairman on the recommendation of the Council.

Members of the Council

At any point in time, seven members of the Council should be from the state and three members must be individuals of national eminence (outside the state). Each member will have a term of 6 years; 1/3rd of the members will retire every 2 years. The existing council will nominate 3 new members every 2 years.

Secretariat and Administrative Staff

The council must have its own Secretariat and Administrative Staff. The staff will not be permanent to the Council but brought on deputation from other institutions and state government (for a maximum period of 5 years). Suitable talent maybe be drawn from the system or the industry and compensated adequately.

Formation of State Higher Education Councils under RUSA - states with existing Councils

State will appoint a five-member selection committee to select 7 new members and members from existing Council. Selection committee must consist of:

- · 2 eminent scientists/social scientists
- 1 former VC of a state university
- 1 former director of Institute of National repute within or outside the state
- 1 former VC of a central university

When the Council is constituted, initially, one-third of the Council members (i.e. three members) should be given one non-renewable term of six-years. Another one-third should be given a four-year term and the remaining one-third should be drawn from existing members, who would be given a term of two years.

Formation of Councils under RUSA - states without existing State Higher Education Councils

The first Council will be appointed by a five-member selection committee to be appointed by the State, whose the members must be:

- 2 eminent scientists/social scientists
- 1 former VC of a state university
- 1 former director of Institute of National repute within or outside the state
- 1 former VC of a central university

When the Council is constituted for the first time, initially, one-third of the Board members (i.e. six members) should be given one non-renewable term of six-years. Another one-third should be given a four-year term and the remaining one-third would be given a term of two years

(iii) Basic roles and responsibilities

The uniform functioning of RUSA across all states would require for the SHEC to have the following responsibilities and powers. Under the guidance of this broad framework, the state may modify their individual Councils as required and grant them additional powers.

Table 4 Powers and functions of State Higher Education Council

Regulatory Function

Strategy and Planning

- 1. Preparing the State Higher Education Plan (Perspective Plan, Annual Plan and Budget Plan)
- 2. Providing state institutions inputs for creating their Plans and implementing them
- 3. Coordination between apex bodies, regulatory institutions and government

Monitoring & evaluation

- 4. Monitoring the implementation of State Higher Education Plan
- 5. Creating and maintaining the Management Information Systems
- 6. Compiling and maintaining periodic statistics at state and Institutional level
- 7. Evaluating state institutions on the basis of norms and KPIs developed under RUSA (the Council may, for its own use, develop additional norms as it sees fit)

Quality assurance & academic functions

- 8. Faculty quality enhancement initiatives
- 9. Quality of examinations
- 10. Maintaining quality of Curriculum
- 11. Promoting innovation in research
- 12. Protecting the autonomy of state institutions
- 13. Providing approval to setting up new institutions/colleges
- 14. Accreditation reforms

Advisory functions

- 15. Advising state government on strategic investments in higher education
- 16. Advising universities on statute and ordinance formulation

Funding Function

- 17. Funds managed by the SHEC will include funds from RUSA as well as the state share, both of which will flow through the state government
- 18. Determine the methodology for timely transfer of State's share funds to institutions
- 19. Disburse funds to state universities and colleges on the basis of the State Higher Education Plan and transparent norms

5.2.2 State Project Directorate (SPD)

(i) Composition

The SPD will consist of State Project Director and such adequate support staff as may be required for the effective functioning of the State Project Directorate. The State Project Director must be senior officer of the rank of Commissioner/ Secretary to State Government.

(ii) Functions

The SPD will perform the following functions:

- Overseeing project implementation at the state level
- Maintain statistical data and MIS reports
- Engage project auditors as required

5.2.3 Technical Support Group (State)

(i) Composition

The State council may appoint and decide the composition of TSG (State)

(ii) Functions

The following functions will be performed by the TSG:

- · Monitor flow of funds and information,
- · Generate MIS reports as required,
- Provide all operational support to the SHEC

5.3 Institution Level Project Implementation Arrangements

The project at the Institutional level will be managed by two bodies; the Board of Governors (BoG) and a Project Monitoring Unit.

5.3.1 Board of Governors

(i) Composition:

Each Institution will necessarily have its own BoG as per the State Universities Act or as per the guidelines issued by regulatory bodies as the case may be, to be either appointed by the sponsoring Government or by itself through due procedure.

- Take all policy decisions with regard to smooth, cost effective and timely implementation of the Institutional project,
- Form, supervise and guide various Committees required for project implementation and internal project monitoring,

- · Ensure overall faculty development,
- · Enable implementation of all academic and nonacademic Institutional reforms,
- Ensure proper utilization of project fund and timely submission of Financial Management Reports (FMRs) and Utilization Certificates,
- Ensure compliance with the agreed procedures for procurement of Goods, Works and Services and Financial Management,
- Ensure compliance with other fiduciary requirements under the project such as Access, Equity and Excellence Assurance Plan (EAP), and Disclosure Management Framework (DMF), and
- Monitor progress in the carrying out of all the proposed activities, resolve bottlenecks, and enable the Institution to achieve targets for all key indicators.

5.3.2 Project Monitoring Unit

Each institution will form a project Monitoring Unit with appropriate representation from academic officials of the Institution, faculty, senior administrative officers, technical and non-technical support staff and students. The Unit, headed by the Head of the Institution, will be responsible for monitoring of the project at the institutional level in order to implement the governance reforms proposed under RUSA.

The Project Monitoring Unit will perform the following roles:

- Procurement of Goods, Works and Services,
- Financial management,
- · Implementation of faculty and staff development activities and programs,
- · Monitoring project implementation,
- · Achievement of targets for all indicators as proposed and keeping MIS updated,
- Organizing efficient conduct of monitoring and performance audits, etc.

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Role of Private Sector

The scheme operates on the premise that State's will make a pre-defined matching contribution to the Central Government's share. Clearly, given that the volume of public resources is limited, the government has to find innovative and newer avenues for addressing access, equity issues in addition to funding, promoting research and upgrading quality while focusing on scale to meet the requirements. It is the commitment of RUSA to encourage private participation in the higher education, but with necessary caution to be exercised against profit objectives or commercialization. It will be possible for the state to mobilize 50% of the state contribution through private participation or contributions/ donations etc. It is possible for the states or the institutions to garner these resources in shape of:

- Philanthropic contributions
- Donations/Grants from private companies/trusts/NRIs
- Establishing chairs/Schools/Departments
- Public Private Partnerships
- Knowledge Parks/Innovation centers/Centers of Excellence
- 2% Corporate Social Responsibility funds
- Viability Gap Funding
- Rural Infrastructure Development Fund
- Innovative debt instruments
- · Specific research grants with IPR sharing

The corporate sector as key stakeholder in higher education can play a pivotal role in improving our current higher education system as well as in meeting future aspirations. Corporations can collaborate with the academia in several ways, with varying funding commitment:

- Direct ownership and management of institutions
- Collaborating with the higher education institutions in research, faculty development, infrastructure creation, student scholarships, and governance.

While the government can endeavor to transform a select group of Indian higher education institutions into world class institutions and attract investments for new institutions by easing current norms, overcoming systemic challenges, creating a conducive environment for higher education to thrive in and focusing on quality of the institutions and the outcomes (students, research output), some issues need to be addressed to ensure productive participation from the corporate sector.

The government needs to transform itself from a provider of higher education to play key roles in enabling and establishing an appropriate regulatory framework to set quality standards for higher education.

- 1. Create enabling conditions to make the higher education system robust and useful to attract investments.
- 2. Improve the quality of higher education by focusing on research and faculty development, with corporate sector participation.
- 3. Engage the corporate sector to invest in existing institutions, set up new institutions, and develop new knowledge clusters.

To adequately leverage the corporate sector, it is important to look at the entire set of engagement models to ensure significant participation as well as diversity. The recommendations and ways to execute them effectively are suggested.

Corporate participation in the higher education sector is vital however, to encourage this participation, it is important to create an enabling environment in the existing higher education system that allows existing institutions to become world-class, as well as facilitate the establishment of new world class institutions.

- A. Towards creating enabling conditions to make the higher education system robust and useful to attract investments.
 - 1. Autonomy- in financial, regulatory, academic and administrative aspects
 - a. Accountability
 - b. Governance

- 2. Resources ensuring availability of land, infrastructure and connectivity
- 3. Fiscal incentives to encourage investments and attract funding
- 4. Enabling environment (such as visas) for free movement of faculty and students to promote collaboration with world–class institutions abroad
- 5. Accreditation Freedom to accredit with global accreditation agencies to put Indian institutions on par with the best
- 6. Access to funding for Students through scholarships to enable students to pursue their chosen fields of study
- B. Towards corporate participation in improving quality by enhancing research focus and faculty development.
 - 1. Enhancing research focus through dedicated funding for research, sponsored doctoral programs, and part-time Masters and PhD programs
 - 2. Faculty development by increasing the talent pool of faculty from corporates (working and retired), faculty development programs, and sponsorships of visits by expert faculty

C. Towards creation of new infrastructure through corporate investments in higher education.

- 1. Setting up of new facilities by the corporate sector in existing universities and higher education institutions either as Centers of Excellence (CoEs) or in the form of technology parks.
- 2. Creating new universities and higher education institutions. (through Public, Private & PPP)
- 3. Developing new knowledge clusters / hubs.

The recent recommendations of the Narayana Murthy Committee have identified three targeted outcomes from corporate sector participation in higher education system.

- 1. Upgrade up to 75 'top-of-the-class'¹⁰¹ universities and higher education institutions at a typical investment of Rs.175–200 crores per institution.
- 2. Create 20 new 'world class' universities and higher education institutions by Pvt. or PPP at a typical investment of Rs. 500 crores per institution.
- 3. Develop 20 new national knowledge clusters in identified cities and educational hubs through the PPP model at a typical investment of Rs. 500 crores per cluster / hub.

¹⁰¹ Committee on Corporate Sector Participation in Higher Education submitted to the Planning Commission, May 2012

4. Mobilizing an additional 5,500 faculty members through a mix of international recruitment (about one-third of the total), development and improvement in the quality of domestic PhDs, and involvement of leading practitioners from the Indian industry.

One of the cornerstones of RUSA is enhancing access of higher education to those areas and sections of society, which have so far been unserved or underserved, and improving infrastructure and facilities in existing institutions. Seeking private investment in such cases poses a challenge that needs to be met. Investment in higher educational infrastructure yields high social and economic returns, but the financial returns may not be adequate for an investor.

States could look at incentivizing corporate/private sector participation by means of Viability Gap Funding (VGF), administered by the Department of Economic Affairs, Ministry of Finance. In such cases, where the corporate/private sector would make bulk of the investment, the States could meet a portion of the cost, making the project viable. VGF is typically provided in competitively bid projects with those investors needing the least VGF support being awarded the project. The central government meets up to 20% of capital cost of a project being implemented in public private partnership (PPP) mode by a central ministry, state government, statutory entity or a local body. Under RUSA, the state government can pitch in with another 20% of the project cost to make the projects even more attractive for the investors.

Additionally States may make use of the Rural Infrastructure Development Fund (RIDF) instituted with the objective of providing low cost fund support to State Governments for completion of ongoing projects relating to rural infrastructure. While initially RIDF was for financing of ongoing rural infrastructure projects in the agriculture sector, since then projects in the area of rural education Institutions, public health Institutions, construction of toilet blocks in existing schools, especially for girls etc. have been supported. State projects under RUSA could also be considered for support under RIDF.

Both the Central Government and State Governments could always look at leveraging resources both from the Corporate Social Responsibility budget of the Public and the Private Sector, Philanthropic contributions of wealthy individuals and non-resident Indians.



Approach, Planning and Appraisal

Under RUSA, a detailed planning and budgeting exercise would be taken up every year to fix the annual targets for program implementation and the required budget for them. To effectively implement and monitor the activities during the year, each implementing agency in the State is required to prepare a plan of action. This should indicate the physical targets and budgetary estimates in accordance with the approved pattern of assistance under the RUSA. These should cover all aspects of the program activities for the period April to March each year, and are to send by each State/ UT to the Ministry of Human Resources Development, Gol for approval well before the start of the year. It is important that the action plan is realistic, practically implementable and correlates the physical outputs with the cost estimates.

7.1 Bottom up Approach

RUSA follows a Bottom Up approach for planning and budgeting. The process begins at the Institutional Level, which prepares the "Institutional Development Plan" based on inputs/ discussions with the multiple – stakeholders within its jurisdiction and sends to the SHCE. In addition, the SHCE should also engage in consultation with multiple stakeholders across the State taking into account regional requirements as also requirements in keeping with equity and access concerns (especially underserved and backward districts). These Institution Development Plans would then aggregated to form a State Higher Educational Plan (SHEP). All SHEPs are reviewed and compiled to estimate the next year's fund requirements for program implementation activities under RUSA.

This requires setting up of planning teams and committees at various levels i.e. at Underserved and backward districts, regional zones, educational institutional level through active participation of multiple stakeholders which will help perform both planning and on-going monitoring functions. The process of giving inputs and consolidation of plans will be through a bottom up approach.

The States and SHECs should not function merely as agencies to aggregate the Institutional Development Plans at state level. They must consider the entire state as a single unit of planning. Their role should be more towards ensuring a balanced development of higher education in the entire state. The state higher education plan must include strategies to address spatial and geographical gaps, perspective discipline planning etc. The state has to identify un-served/under-served areas and make special provisions for the new institutional congestion and have a strategy to deal with the same. Similarly, state must also look at the state as a single entity to plan for affiliation reforms and creation of new universities etc.

7.2 Process of Preparation of Plans

The Ministry of Human Resource Development is the nodal agency administering the RUSA program. It receives the budget targets of participating states, reviews/ analyzes them & then gives approvals & makes disbursements, and so the entire process runs through a two-way mechanism:

• "Budgetary Demands" emanating from Institutions to the MHRD, Gol through the State Councils
• "Budgetary Approvals/ Allocations" conveyed from MHRD, Gol to the State Councils and in turn to the institutions



Figure 65 Preparation of State Plans

7.3 Resource Allocation

The MHRD will follow a norm and performance-based approach to allocate funds to various States. The overall allocation will be made on the basis of student population (18-23) of the states. An additional weightage has been assigned to the States to ensure enhanced allocation of resources to states with weak socio-economic and health indicators. A formulaic approach will be adopted as outlined in Annexure V to decide the overall resources entitlement of states. Further, fund allocation will be made on the basis of performance. The following will be the scheme for resource allocation to different category of States. This approach ensures more resources to the States which are critical for achieving the objectives of RUSA.

Category	States	Center: State Contribution
N.E and J&K	Assam, Manipur, Meghalaya, Arunachal Pradesh, Nagaland, Mizoram, Tripura, Jammu & Kashmir, Sikkim, Himachal Pradesh and Uttarakhand	90:10
Other States and UTs		65:35

Under RUSA, socio-demographic variables like rural/urban distribution; proportion of SC/ST and vulnerable groups; districts with adverse education indicators; difficult, most difficult and inaccessible areas, left wing affected districts etc. would be considered while allocating resources to the districts. Funding under RUSA over a period of 10 years would follow a two cycle process. It is proposed that State-wise allocation would be made for the first cycle based on certain norms. Gradually, these norms could be changed to give most effect to performance.

7.4 Resource Envelope

The Resources allocated to a particular state for any given financial year is termed as the "Resource Envelope". The resource envelope for a Financial Year would consist of:

- Uncommitted Unspent Balance.
- Gol Allocation (BE) proposed for the year.
- State Share Contribution due for the year.

7.5 Institutional Development Plan (IDP)

The IDP depicts the resource requirements at Institutional Level as well as at its sub units for program implementation in terms of infrastructure, HR, procurement, schemes execution etc. and provides an overall budget required for the Institution to execute those activities. The Institutional Governing Structure is responsible for the preparation of IDP that needs to be done by constituting a planning team responsible for providing overall guidance and support to the planning process.

7.6 State Higher Education Plan

After submitting the Institution Development Plans to the SHEC, they are to be reviewed in detail at the state level and finalized through extensive meetings/ discussions at the various stakeholders. The requirements for all the areas/institutions will be clubbed with the State level budgetary requirements to form the State Higher Education Plan. The SHEP will then be broken down into State Higher Education Annual Plans. These annual plans will help the states in identifying and quantifying their targets required for program implementation for the proposed year. However while sanctioning the resources, MHRD would examine to see that these plans are organically linked to the overall SHEPs. Therefore, a SHEP in the required template would be the guiding document to ensure that over all objectives of the state plans are not lost sight of.

7.6.1 Key considerations while drafting SHEP

Some of the key aspects, which must be considered for preparation of SHEPs, are given below:

- Funds released under RUSA do not lapse at the close of the Financial Year but are carried over to the next Financial Year in the form of committed and uncommitted unspent balances.
- Clear demarcation of Committed Unspent and Uncommitted unspent balances has to be made. The states need to show the quantum of usage of funds in the previous year and the quantum of unspent funds lying with them. The previous year funds lying with the states need to be clearly demarcated and shown under the heads:
- Committed Unspent Funds: These funds are meant for those activities for which implementation has already started, is underway, or has been administratively approved but not implemented fully. These balances need to be indicated by the state activity wise, while proposing the SHEP for the next Financial Year. The State/ UT may also provide the estimated timelines for utilization of committed liability, preferably within next two quarters.
- Uncommitted Unspent Funds: The funds lying with Institutions which could not be committed for utilization during the year should also be worked out and incorporated in State level unspent balances.
- Ceiling on Civil works: A portion of state funds is used on civil works. Ideally the proportion of civil works should not cross 40% of the total resource requirements (with 60% for non-infrastructural activities). This can be relaxed in exceptional

cases with the approval of the Mission Authority. Also, all the civil construction work should be taken up only after including the manpower & equipment requirements so that a large portion of public funds is not blocked in unutilized buildings.

- Ceiling on Program Management Costs: A maximum of 4% of approved SHEP may be spent on program MMER activities (Management, Monitoring, Evaluation and Research) such as hiring of consultants coming under the ambit of program management, monitoring and evaluation, audit expenses, mobility support, office expenses, purchase of computers, office furniture & fixtures, fax machines etc.
- State's Share: The states participate with the centre in funding the RUSA program.
 States are required to contribute 10% to 35% of the total amount . It should be ensured that all along the state expenditure on higher education increases in real terms and there is no substitution of the state expenditure by Central expenditure.

7.6.2 Format of SHEP

Another important aspect of the budget is the format in which it is presented. The format should be crisp, well defined and easily decipherable at all levels. For this, Ministry has prepared the framework and guidelines for preparation of SHEPs which is circulated to the States and UTs each year for submission and approval of their Budget for the forthcoming year. These guidelines aim to reduce the size of the unnecessary description and demand of information from the states, so as to make SHEPs less bulky without compromising with the strategic inputs and other essential information. The detailed format of SHEP will be made available online on the Mission website whenever there are any changes. As per the format, following are the broad contents of the SHEP:

- Executive Summary
- Outcome analysis of last SHEP
- · Policy and Strategic Reforms in Strategic Areas
- Conditionalities
- Scheme/ Program under RUSA
- Monitoring and Evaluation
- Financial Management
- · State Resources and Other sources of funds
- · Priority projects if other resources are available

7.6.3 Approval Process

The Project Approval Board at Gol level would undertake detailed review of the SHEPs submitted by the states. It will also assess the performance of the State and look at the targets that have been set. The SHEP will then be approved by the PAB (in case any changes are made the states will make the changes and resubmit the same to PAB) and funds will be released to states accordingly.

7.7 Timelines

The Financial Year beginning from 1st of April would be the commencement date of the State Annual Plans. Hence, the budget needs to be approved and communicated at all levels before this date. This implies that it needs to be sent for approval and consented at all levels of authority before 1st April. The success of budgeting exercise would be dependent on adherence to time schedules. Delays in submissions and approvals would delay the finalization of the SHEPs. Hence, RUSA will specify the dates by which submissions and approvals need to be carried out. The tabular representation of the time schedule to be followed is given below:

Activity	Timeline
Communication of Resource Envelope to institutions by SHEC	
Submission of Institutional Plans	
Receiving of SHEP in MHRD	
Pre-appraisal meeting	
Discussion at National Steering Committee/PAB	To be decided by PAB in its First Meeting.
Approved RoPs sent to the SHEC after the approval at Gol	
Transfer of first installment of money to State treasury	
Receipt of Expenditure Statement/MHRD review	
Transfer of second installment	

Table 5 Detailed Timelines (to be intimated to States at the start of the project)

7.8 Revision of Proposal (RoP)

After the finalization of the SHEP, the states may place a demand for additional funds for various components of RUSA to the Ministry. After review and feedback from the concerned program divisions, the Ministry may approve or disapprove the request. In case of an approval, a letter/corrigendum shall be issued to the state notifying the revised approved amount. In case the demand for additional funds is not approved, the states may submit the proposal for consideration the following year.



Financing Strategy of RUSA

8.1 Norm based funding

As already discussed, central funding would be strategic, based on State Higher Education plans which would be leveraged to stimulate enhanced state funding. It is imperative also that central funding is linked to sectoral academic and governance reforms. The most transparent and objective way to do so would be through norm-based funding for state universities and colleges. In addition institutions would be encouraged to raise their own funds through various legitimate means. Allocation of operating budget should be based on objective norms and new investments based on competitive grants and performance contracts.

The overall norm based funding schema should apply filters at the primary, secondary and tertiary levels to determine the eligibility of institutions to receive funding. At every level, the kind of funds for which the institution becomes eligible will be defined. The norms, which would determine the eligibility of institutions to receive funding, would also grade the institutions based on their level of compliance to regulations to determine the quantum of funding. The institutions will be given an objective score against these norms and it will decide the quantum of funds they will be eligible for. This funding would necessarily have to be expended in the higher education sector in the state – and would not substitute state funding, since the state government would have to necessarily increase its annual investment by a fixed percentage. As such, the funding will not be cost-based in which the Center finances specific investments, rather the center's funding contributes to the state's investment program in higher education. As part of the design, it would be discussed to what degree the norms would vary in a pre-fixed and transparent manner across states to take into account differences in sizes, priorities, and sector characteristics.





8.2 Performance based funding

The other component of RUSA would be performance based funding. The State Higher Education Councils will create State Higher Education plans. These would serve as the benchmark against which the performance of the state and particular institutions will be graded. Depending upon the level of achievement in various spheres of the plan, the funding for the future would be decided. Of course, the funding for the future would also take into account the new Plans submitted by the States. This assessment would clarify the state and institutions ability to fulfill the targets it sets for itself; it will also trigger healthy competition amongst the institutions.

8.3 Flow of funds

RUSA will receive funding over the next two plan periods. Two on-going schemes of Model Degree Colleges and sub-mission on Polytechnics will be subsumed under RUSA. In addition, schemes under UGC that pertain to development grants for state universities and colleges as well as the development and one-time catch up grants will be a part of RUSA. Various aspects pertaining to flow of information and flow of funds will be covered in the following sections.

8.3.1 Key Sources of Funds

The funds given to the State Consolidated Fund mainly consist of the following components:

- Grants-in-aid-made by or through MHRD, Gol
- Contribution by the State Government. Centre-State funding to be in the ratio of ratio of 90:10 in the North Eastern states, Sikkim, J&K Himachal Pradesh & Uttarkhand, and 65:35 for other states and UTs.
- Key requirements in this regard are given below:
- The state contribution made by the State Government will be booked as expenditure in the State Budget at the time of its release to the SHEC/Institutions
- The states would have to ensure availability of sufficient land for new construction activities free of cost. The cost of land acquisition, if any cannot be made a part of the total outlays.
- For utilization, the state contribution must be proportionately utilized among the different programs.
- For reporting, the same may be reflected separately in the periodical FMRs and Statement of Funds Position (SFPs) and a separate Utilization Certificate of the total amount utilized along with unspent balance, if any, would be required to be furnished at the end of the financial year.

8.3.2 Fund Flow from MHRD to State

FMG at the Gol level puts a proposal to the Integrated Finance Division (IFD) for fund release.

• Approval of Appropriate Authority would be taken for fund release to State/UTs concerned.

- The funds will flow to the State Consolidated Fund. Only upon receiving the state contribution into this account, resources will flow to SHEC and from SHEC to institutions based on the approved State Higher Education Annual Plan.
- After the approval, sanctions are issued to respective States after uploading on the website of the Controller General of Accounts (CGA). After this funds are transferred online to the states/ UTs.
- The states should contribute their share along with central share to the SHEC within 15 days. Non compliance will lead to charging of interest.
- The funds with the SHEC/Institutions do not lapse at the close of financial year. SHEC/Institutions are empowered to utilize the unspent balance during the next financial year for the same purpose for which the funds were allocated. The amount shall however be taken into account while releasing grants-in-aids for the next year. Also, the amount remaining unutilized at the close of the program shall either be refunded or utilized in a manner as decided by the Government of India.

8.3.3. Fund Flow from State to Institutions (Universities and Colleges)

State/SHEC should transfer the funds to the districts/institutions/executing agencies within 15 days of the receipt of funds from Central Government. Non-compliance of release of money by the State to the State Council/Institutions within the stipulated period of 15 days may lead to charging of interest and may further affect allocation of grants in the future these funds include all components agreed to in the State Higher Education Plan as agreed to by the Gol.

- SHEC should directly credit to the bank account of the institutions.
- The releases made to Institutions should be as per the approved Institutional Action Plans and after adjusting unspent balances from the previous year

8.3.3.1 Frequency of Fund Release

The funds are released in tranches based on the utilization of previous funds. Normally, the funds are released in a minimum of two or more tranches if required.

8.3.4 Key Conditions Precedent to Fund Release

Based upon the approval of the State Higher Education Plans (SHEPs) by Project Approval Board, RUSA Mission Authority will release the Central Governments funds to States' Consolidated Fund and from their along with the States' share further to SHEC in accordance with the General Financial Rules (GFR), 2005 of Department of Expenditure, Ministry of Finance, and Government of India. Rule 212(1) of GFR rules 2005 states that:

"Ministry/Department concerned should release any amount sanctioned for the subsequent financial year only after Utilization Certificates/FMR on provisional basis in respect of grants of the preceding financial year is submitted. Release of grants-in aids in excess of 65% of approved SHEP shall be done only after the Utilization Certificates and the Annual Audited Statement relating to grants-in-aids released in preceding year are submitted to the satisfaction of the Ministry. Ministry would, however, ensure even flow of expenditure throughout the year. Reports submitted by the Internal Audit parties of the Ministry and inspection reports received from Indian Audit and Accounts Department and the performance reports, if any, received for the year should also be looked into while sanctioning further grants."

It should be ensured at all levels that the funds provided for various programs are used for the purpose for which they were given and should not be mixed with other funds.

8.3.4.1 Tranche Release Arrangement

The tranches of funds are released by the PAB only when precedent conditions are fulfilled.

8.3.4.2 Asset Creation

The assets created under the scheme will be maintained by States. A detailed MoU to this effect will be signed between the States and the RUSA Mission Authority.

8.3.5 Banking Arrangements

To facilitate movement of funds, proper banking arrangements at all levels is crucial. All funds are transferred through RBI approved banks. The transfer should take place through the Central Plan Scheme Monitoring System portal so as to ensure the following

- Tracking Flow of Funds
- Online information of bank balance
- Track Utilization of money
- Ultimate e payment to the beneficiary
- Dissemination of relevant information to the end users
- · Decision Support System for all levels of program heads
- Enhance transparency and accountability in public expenditure

8.3.6 Central Plan Scheme Monitoring System

The Central Plan Scheme Monitoring System (CPSMS), is a Central Sector Plan Scheme of the Planning Commission and is being implemented by the Office of Controller General of Accounts. The scheme aims at establishing a suitable on-line Management Information System and Decision Support System for all plan schemes of the Government of India. With 139 Central Sector Schemes (CSS) and more than 800 Central Sector Schemes (CS), along with State Plans and Additional Central Assistance (ACA), the CPSMS aims to track almost Rs.300,000 Crores. The system is envisaged to track the fund disbursement from Government of India up to the last beneficiary under Plan Schemes and ultimately report utilization under these schemes at different levels of implementation on a real time basis.

8.3.6.1 Objectives of CPSMS

1. Release of Funds:

- To capture all releases from the Central Civil Ministries to States / Special Purpose Vehicles / Autonomous bodies / NGOs / individuals
- To register all agencies receiving these releases.
- To capture component-wise releases expenditure from Special Purpose Vehicles (societies) / Autonomous bodies / NGOs to subsequent implementing agencies in the States/UTs

2. Utilization of Funds:

- To capture beneficiary-wise and component-wise fund utilization by implementing agencies at the State, District, Institution levels under various Plan Schemes of Government of India.
- Payment to ultimate beneficiary through the banking channel.

3. Reforms in the area of Public Financial Management:

- Move from prescriptive fund release system to 'just in time' fund release system minimizing float with the banks hereby leading to a better fiscal deficit management.
- Moving from the system of booking fund releases as 'expenditure' to a system of booking actual utilization reported from the field as 'expenditure'.
- Providing on-line status of fund utilization on a real time basis both under the fund devolved through the Treasury route and SPV route, leading to a better Decision Support System.
- It will help in online transaction monitoring

8.3.6.2. Operating the main Bank Account

In addition to the above points, the following points should be noted for compliance while operating the Group Bank Account:

- The main Group account will be utilized for crediting funds received under all RUSA Programs from Gol.
- Cheque signing mandate to be given to the bank having Group account will be as per guidelines issued on 14-12-2006 and in line with delegation of powers issued by Ministry and/or State Govt.

The number of bank accounts at Institutional level may be kept at minimum so as to discourage scattered maintenance of RUSA funds as this results in weak financial management and poor internal controls Do Nots

- No funds would be kept in the form of a Fixed Deposit or any other investments of any nature other than the saving bank account. Moreover, savings accounts should be vanilla/simple savings bank accounts and not smart savings bank accounts.
- Accounts at all levels may preferably be kept in government approved banks. In case there are no approved banks in the region then accounts can be maintained with the post office. No funds other than Gol releases and State's contribution should be kept in RUSA bank Accounts. Separate Bank Account to be maintained for funds received from other sources.
- 8.3.6.3 Signatories to the Bank Account
- Under RUSA, a mandatory practice of Joint Signatories exists which should be in accordance with the RUSA Guidelines on finance, accounting and fund flow
- A set of four designated signatories at State & designated signatory at Institutional level, to be notified. Any two of those can jointly sign cheques/ issue electronic instruction for e-banking to operate all bank accounts.

8.4 Flow of information

Since RUSA's basic principle is norm-based funding, its backbone is the information on the basis of which norm-based and performance appraisal decisions can be taken.

University

The basic Unit of Information collection will be the university. The university will collect all the information from affiliated and constituted colleges. The information will be collected through the Management Information System that will be developed and installed in all universities for this purpose.

State Higher Education Council

The State Higher Education Council will collate this information at a state level. The responsibility of timely and accurate data collection and maintenance of the MIS systems is one of the major responsibilities of the State Higher Education Council. This information would have three-fold use for the Council:

- Assessing the performance of very university on an yearly basis, in terms of the norms set by RUSA and advising universities to improve their performance
- Assessing the performance of universities against specific grants or project based funding
- Formulation of the five/ten year state education Plans on the basis of the current performance and possible future growth

RUSA Mission Authority/Project Approval Board

The Information collected on a state- wise basis would be sent to the RUSA National Implementation Agency. At this level, the information will be used to ascertain eligibility of the institutions for further funding for the next financial period.



Figure 67 Flow of funds and information





¹⁰² This model has been developed by Venkatesh Kumar, B. and Soumya Mishra from TISS based on their ongoing work on Governance Reforms in Higher Education in Madhya Pradesh as a part of the World Bank team.

8.4.1 Management Information System

Collection of data from state universities has not been attempted at this level ever. The existing mechanisms are inadequate to capture the required data in a timely fashion. Hence, the first step towards implementation of RUSA would be the installation of a new Management Information System, developed for all the institutions falling under the scope of RUSA. A common tool would be developed to get standardized information that would help in the calculation of norms.

Universities and colleges will be provided adequate infrastructural support to install the MIS and required training to the personnel for using the system.

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Annexures

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* All India Survey of Higher Education, Ministry of

Human Resource Development, 2010-11

** Directorate of Economics & Statistics of respective State Governments, and for All-India, Central Statistics Office. GSDP as of 1st March, 2012

*** Estimate of Expenditure towards Higher Education (2009-10), Ministry of Statistics and Programme Implementation

**** Census 2011

***** University Grants Commission Annual Report. 2011-12

^ Data as of 1st March, 2011 * Data compiled from Directorate of Economics & Statistics of respective State Governments, and for All-India, Central Statistics Office. GSDP as of 1st March, 2012

State	Population (18-23 years)*	GSDP** (Rs in Crores)	Total Expenditure on Higher Education*** (Rs in Crores)
Andhra Pradesh	9,890,957	676,234	5,760
Arunachal Pradesh	174,522	9,357	28
Assam	3,760,538	115,408	1,183
Bihar	12,451,832	262,230	1,438
Chhattisgarh	2,927,708	135,536	1,060
Goa	185,576	44,460	273
Gujarat	6,830,776	513173^	1,991
Haryana	3,162,199	309,326	1,193
Himachal Pradesh	783,967	63,084	535
Jammu & Kashmir	1,569,059	62,365	682
Jharkhand	4,035,024	465,552	164
Karnataka	7,035,619	4,154	979
Kerala	3,265,268	326,693	2,208
Madhya Pradesh	8,583,142	259,903^	3,295
Maharashtra	12,960,961	1,029,621^	1,398
Manipur	343,694	10,188	126
Meghalaya	372,983	17,459	58
Mizoram	138,382	6,058^	74
Nagaland	262,008	12,065	64
Odisha	4,834,435	226,236	1,258
Punjab	3,255,199	259,424	884
Rajasthan	8,283,436	323,682^	1,342
Sikkim	78,468	5,652^	19
Tamil Nadu	7,326,756	635,044	9,550
Tripura	472,014	19,731	217
Uttar Pradesh	24,157,083	676,083	1,219
Uttarakhand	1,228,491	87,350	354
West Bengal	10,684,720	549,876	1,698
Andaman Nicobar Islands	51,951	4,241	0
Chandigarh	147,952	20,704^	0
Dadra & Nagar Haveli	46,436	n.a.	0
Daman & Diu	45,229	n.a.	0
Delhi	2,175,380	313,934	798
Lakhshwadeep	0	n.a.	0
Puducherry	152,355	13,724	67
Total/Average	141,674,120	8,279,976	39914.35
Total/Average	141,674,120	8,279,976	39914.35

Expenditure on Higher Education as % of GSDP	Per Capita Expenditure on Higher Education (18-23 years)	Institutional Density **** (per 1000 sq kms)	ity **** Total No of Institutions 1000 sq Enrollment* (Universities)*****			GER*
				University	College	
0.85%	5,892	16.5	2,806,367	47	4,550	28.4
0.30%	1,661	0.2	46,917	6	17	26.9
1.02%	3,237	6.5	503,238	15	507	13.4
0.55%	1,221	7.5	1,311,985	22	706	10.5
0.78%	3,757	5.0	399,113	19	681	13.6
0.61%	14,634	16.2	61,651	2	60	33.2
0.39%	2,958	9.4	1,453,726	43	1,849	21.3
0.39%	3,843	22.1	763,522	27	976	24.1
0.85%	6,851	6.3	203,620	23	348	26.0
1.09%	4,470	1.4	264,350	11	314	16.8
0.14%	425	2.9	328,496	14	231	8.1
0.21%	1,410	17.6	1,793,043	44	3,370	25.5
0.68%	6,639	27.4	715,050	17	1,063	21.9
1.27%	3,955	7.7	1,167,782	37	2,364	13.6
0.14%	1,091	15.7	3,577,974	45	4,836	27.6
1.23%	3,794	3.6	123,497	3	80	35.9
0.33%	1,615	3.1	65,282	10	69	17.5
1.22%	5,509	1.3	29,846	3	28	21.6
0.53%	2,413	3.5	56,389	4	58	21.5
0.56%	2,659	7.2	780,417	19	1,117	16.1
0.34%	2,732	19.4	631,078	23	978	19.4
0.41%	1,677	8.0	1,509,764	59	2,753	18.2
0.34%	2,451	2.1	19,005	6	15	24.2
1.50%	13,104	18.5	2,408,520	55	2,410	32.9
1.10%	4,672	3.8	64,172	3	40	13.6
0.18%	522	18.4	3,925,792	61	4,440	16.3
0.41%	2,937	7.7	341,196	23	413	27.8
0.31%	1,623	10.1	1,323,937	27	896	12.4
-	-	0.7	5,908	0	6	11.4
-	-	236.8	61,301	3	27	41.4
-	-	8.1	1,687	0	4	3.6
-	-	36.0	1,561	0	4	3.5
0.25%	3,694	161.8	705,981	25	240	32.5
-	-	100.0	0	0	3	0.0
0.49%	4,508	175.5	47,582	4	86	31.2
0.53	-	11.4	27,499,749	700	35,539	19.41

State	Capital expenditure as a % of total expenditure	Salary expenditure as a % of total expenditure	Other expenditure as a % of total expenditure
Andhra Pradesh	15%	75%	10%
Arunachal Pradesh	0%	91%	9%
Assam	2%	87%	12%
Bihar	10%	87%	3%
Chhattisgarh	12%	83%	5%
Goa	11%	78%	11%
Gujarat	9%	84%	7%
Haryana	16%	80%	4%
Himachal Pradesh	23%	73%	4%
Jammu & Kashmir	19%	78%	2%
Jharkhand	35%	64%	1%
Karnataka	10%	88%	2%
Kerala	2%	95%	3%
Madhya Pradesh	8%	90%	3%
Maharashtra	5%	92%	3%
Manipur	8%	84%	7%
Meghalaya	10%	89%	1%
Mizoram	0%	96%	4%
Nagaland	9%	80%	11%
Odisha	2%	98%	0%
Punjab	2%	94%	5%
Rajasthan	6%	91%	3%
Sikkim	10%	85%	5%
Tamil Nadu	2%	90%	9%
Tripura	53%	45%	2%
Uttar Pradesh	5%	95%	0%
Uttarakhand	9%	87%	4%
West Bengal	1%	98%	1%

19%

4%

10%

Ratio of transfers to <u>total</u>

expenditure by State**

> 57% 16% 39% 81% 10% 40%

48%

59% 26%

47%

61% 57%

12%

40% 44%

18% 82% 29% 7% 62% 28% 13% 7% 24% 83% 30% 91%

24%

79%

43%

** Ratio of transfers to institutions shows the ratio of total expenditure that the State makes through institutions. Higher ratios show higher degree of decentralization, lower ratios show that most of the expenditure is made by the State directly through the Higher Education Departments. In most cases high ratios are accompanied by high salary expenditure showing that many teachers are employed by the State directly and not through Universities/Colleges.

70%

92%

85%

11%

4%

5%

Delhi

Puducherrry

Average

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Executive Summary

A summary of the contents of the State Plan must be presented. The Executive summary can cover the part performance, vision, key initiatives, main challenges faced etc.

Chapter 1: Introduction

Mission

A mission statement is fundamental to strategic planning. It is an assertion of an institution's raison d'être, or purpose, and should clearly define its ideals as well as the services it offers to various stakeholders. It informs an institution's financial planning, budgeting, staffing and academic programming. One aspect of a mission statement relates to students, in terms of both institutional commitments and expectations.

The mission statement should be a general statement of values, aims and goals of the institution. An effective mission statement will be clear, precise and transparent about commitments, long-term goals and values. It usually includes a commitment to high standards and levels of performance, discussion of the context of the institutional environment, recognition of institutional obligations to the community, the nation and the world, and commitment to its students. A mission statement ordinarily consists of two parts:

- a high-level preamble that encapsulates the gist of the institutional mission; and
- a narrative portion that lists the particularities and elaborates on the implications of the mission statement in practical terms.

Vision

An effective vision statement is vital to a strategic planning process. A vision statement describes what an institution aspires to become in the future and the values it enshrines. It captures in detail what things could be like at the institution if it were functioning effectively and focuses on the contribution the institution will make to society. In the long run, a successful strategic plan must be premised on institutional values, such as:

- Academic freedom;
- Institutional autonomy;
- High quality;
- · Equal access; and
- Non-discrimination (by race, ethnic affiliation, religion and gender)

Goals

Institutional goals help translate the institutional vision and mission into action. Goals should state clearly the conditions for institutional effectiveness, and the norms and expectations of students and staff. They should present a broad statement of the aims of the institution. The goals must consist of clear statements based on objective criteria and capture the main targets that the institution has set for itself.

.....

Chapter 2: Background

Demographic Profile of the State

Population Rural-Urban spread

Higher Education Profile

GER across categories, across state Qualitative comparison between various areas of the State Private sector plan

SWOT Analysis

Key hurdles such as low access due to low income, large tribal population etc Key strengths such as existence of strong education hubs, industry clusters etc

Academic Information

Туре	No of Universities
Central University	
State University	
Private University	
Other degree awarding institution declared by University	
Deemed University	
Other	
Total	
Туре	No of Colleges
Government funded	
Government aided	
Private unaided	
Autonomous	
Other	
Total	
Туре	No of Colleges
Autonomous colleges	
Affiliated colleges	
Constituent colleges	
Other	
Total	

Accreditation of Universities

Agency	Status	Score Range	No of Institutions
Not accredited	Not accredited Not accredited		
		А	
	Accredited and revalidated after	В	
	2007	С	
NAAC		D	
		А	
	Accredited but not revalidated after	В	
	2007	С	
		D	

		A	
State Accreditation Authority	Accredited	В	
Authority	ACCIEGILEO	С	
		D	

Accreditation of Colleges

Agency	Status	Score Range	No of Institutions
Not accredited	Not accredited	_	
		А	
	Accredited and revalidated after	В	
	2007	С	
NAAC		D	
		А	
	Accredited but not revalidated	В	
	after 2007	С	
		D	
State		А	
Accreditation	Accredited	В	
Authority	Accredited	С	
		D	

Faculty Status (Regular/On-Contract Faculty as on March 31st, 20XX)

	r Posts	Present Status : Number in Position by Highest Qualification								lar		act				
Faculty Rank	egulai	Doc	tora	l Deg	ree	Mas	ters	Degi	ree	Вас	helo	r Deg	gree	of regular osition	icies	contr tion
	No. of Sanctioned Regular Posts	Engineering	Disciplines	Other	Disciplines	Engineering	Disciplines	Other	Disciplines	Engineering	Disciplines	Other	Disciplines	Total Number of regu faculty in Position	Total Vacancies	Total Number of contract faculty in Position
	No.	R	с	R	с	R	с	R	с	R	с	R	с	Tot		Tot
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15= (3+5+7+9+11+13)	16= (2-15)	17= (4+6+8+10 +12+14)
Prof																
Assistant Prof																
Associate Prof																
Total																

R=Regular, C=Contract

Chapter 3: Analysis of past performance

Summary

Summary of the performance of the past year against the major targets set and the major reasons for non-performance

.....

Detailed Analysis

- Performance against specific goals details on a state wise basis
- Analysis of the expenditure made against the allocations, committed unspent and uncommitted unspent balances
- Any particular Universities that need to be mentioned for above or below average performance
- Reasons for non-performance
- Affiliation reform progress with data on the number of affiliating universities and number of affiliated colleges for every university
- New strategies adopted for improving equity, access and excellence any new and innovative practices adopted by the State

Chapter 4: Preparation of the State Plan

Methodology

The steps used for development of the Plan

Stakeholder Consultation

Which were the stakeholders that were consulted for the process of developing the Plan and what were their major contributions

Chapter 5: Five-year Perspective Plan

Provide the five-year perspective plan. The five-year plan must contain:

- Current scores on norms, scores set for the current year (in the five year plan) and the target scores for the end of five-year plan
- Revisions in the targets that the SHEC deems necessary
- · State's assessment of its progress against the five-year plan targets
- · Course corrections and major strategies adopted to achieve the plan targets

Chapter 6: Snapshot of the Annual Plan

This section would provide the summary of the State Higher Education Plan; it would capture the main goals and the financial outlay.

Priority Areas

The State identifies 6-7 priority areas that it needs to work on. These areas as well as the justifications must be mentioned.

Strategy

The Strategy section must mention out the thrust areas of the coming year, highlight the key initiatives the States will undertake to tackle weak areas in the State and what the State hopes to achieve from these initiatives.

Sources of funds

	Source	Funds expected
1.	Rashtriya Uchcha Shiksha Abhiyan	
2.	Grants from State Higher Education Department	
3.	Grants from other State departments	
4.	Grants from Central Departments	
5.	Raised from private sector, institutions, foundations and organizations	
6.	Resources raised by higher education institutions from internal sources like student fees, examination fees etc	
Tota	al	

Major targets and financial outlays

Component	Number/ target	Financial Outlay
New Universities		
Up gradation of existing autonomous colleges to Universities		
Conversion of colleges to Cluster Universities		
Infrastructure grants to Universities		
New Model Colleges (General)		
Upgradation of existing degree colleges to model colleges		
New Colleges (Professional)		
Infrastructure grants to colleges		
Research, innovation and quality improvement		
Equity initiatives		

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Faculty Recruitment Support	
Faculty improvements	
Research Universities	
Vocationalisation of Higher Education	
Leadership Development of Educational Administrators	
Institutional restructuring & reforms	
Capacity building & preparation, Data collection & planning	
Management Information System	
Total	

Prerequisites: Essential commitments from the State

S. No.	Item	State's Commitment (Yes/No)
	Does the State agree to: Set specific targets and policy goals for higher education and agree about size and shape.	
	Share the project cost of the Government funded and aided institutions with MHRD in the applicable ratio (10:90, 35:65)	
	Scale up to and maintain prescribed levels of funding to higher education as a % of State Gross Domestic Product	
	Create the State Higher Education Council according to the suggestion made under RUSA	
	Commitment of all State HEIs to apply for accreditation	
	Establish "State Project Directorate" (SPD) located in State Directorate of Higher Education / the department responsible for Higher Education with adequate staff and maintain the staffing with stability?	
	Fill up vacant faculty positions	
	Implement all the affiliation reforms mentioned under RUSA	
	Implement all the sectoral governance reforms mentioned under RUSA	
	Create and submit the State Higher Education Plan according to prescribed guidelines	
	Implement the Project according to the Project Implementation Plan	
	Ensure implementation of both academic and non-academic reforms by all institutions	
	Discontinue funding to any state beyond the second year of the Project, if the state fails neglects project Implementation	
	Comply with the Disclosure Management Framework	
	· · · · · · · · · · · · · · · · · · ·	

S No.	Indicator	Weightage	Present Rating	Target Rating	Present Score	Target Score
	Governance Index - 17%					
	% of Universities with more than 100 affiliated colleges	6.0%				
	% of autonomous of colleges out of total colleges covered under RUSA	3.0%				
	Ratio of teaching to non- teaching staff in State Higher Education	3.0%				
	Delay in exam conduction and declaration of results (in %)	3.5%				
	% of institutions with a functional website	1.5%				
	Access Index - 21.5					
	GER of the State	4.5%				
	Rural Institutional density of the State	4.0%				
	Urban Institutional density of the State	4.0%				
	Median capacity intake of Universities	2.0%				
	Median capacity intake of Colleges	2.0%				
	% of students in private universities or colleges as a % of students in state/central institutions	2.0%				
	Scholarships provided by state as a % of total expenditure on Higher education	3.0%				
	Equity Index - 22.5%					
	SC GER	3%				
	ST GER	3%				
	OBC GER	3%				
	GER for Females	4.5%				
	% of districts below GER National average	3.0%				
	% of students from rural backgrounds (define rural) in the higher education system	3.0%				
	% of institutions "differently- abled friendly"	1.5%				

Current level and targets for the next year

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 Median patents granted for State universities	5.070		
Citation Impact	3.0%		
Average number of publications by State Universities	4.5%		
Capacity at doctoral level as % of undergraduate capacity	4.5%		
Research and Innovation index - 14%			
Capacity at PG level as a % of undergraduate capacity	3.0%		
Per institution foreign collaboration	2.0%		
 % of active teachers that are non-permanent	3.0%		
Average rating of Colleges	3.5%		
Average rating of Universities	3.5%		
 % of institutions accredited by NAAC/State Accreditation Authority	4.0%		
Student teacher ratio across the State	6.0%		
Quality Index - 25%			
Existence of Equal Opportunities Commission	1.5%		

Chapter 7: Detailed Plan

Based on SWOT analysis provide the "strategic plan" developed for the State Plan and how the key activities proposed in the State Plan are linked with the results of SWOT Analysis. The Plan must cover the strategies that the State has for improvement in Higher Education.

Overview of the major initiatives

This section must address how the State plans to improve access, equity and excellence in the coming year. Whether there are any thrust areas geographically etc.

- Governance
- Access

- Equity
- Quality
- Research

Private sector participation

Plan for including the private sector in planned higher education expansion and raising resources from the private sector.

Detailed component-wise allocations

Component	Year 1 Target	Year 2 Target	Year 3 Target	Year 4 Target	Year 5 Target
New Universities					
Up gradation of existing autonomous colleges to Universities					
Conversion of colleges to Cluster Universities					
Infrastructure grants to Universities					
New Model Colleges (General)					
Upgradation of existing degree colleges to model colleges					
New Colleges (Professional)					
Infrastructure grants to colleges					
Research, innovation and quality improvement					
Equity initiatives					
Faculty Recruitment Support					
Faculty improvements					
Research Universities					
Vocationalisation of Higher Education					
Leadership Development of Educational Administrators					
Institutional restructuring & reforms					
Capacity building & preparation, Data collection & planning					
Management Information System					
Total					

Chapter 8: University-wise plans and financial impact

Outlays for all universities and colleges

University wise break up

Name of University	Planned Outlay	Current Score	Target Score
University 1			
University 2			
University 3			
University 4			

College wise break up

Name of College	Planned Outlay	Current Score	Target Score
College 1			
College 2			
College 3			
College 4			

Detailed Allocations for Universities

University 1

- 1. 1 Short note on the performance over the last year against norms (not exceeding 200 words)
- 1.2 Short note on the strategy for the coming year (not exceeding 200 words)
- 1.3 Major Norms Current and target for coming year

Norm	Current	Target
Governance Quality Index		
Academic Excellence Index		
Equity Initiative Index		
Research and Innovation Index		
Student Facilities Index		
Infrastructure and others Index		

1.4 Components-wise outlay

Component	Target
Expansion of Institution	
Research and innovation focus	
Infrastructural upgradation of existing institutions	
Establishing Management Information System	
Faculty support – recruitment and capacity building	
Administrative reforms	
Academic reforms	
Affiliation reforms	

Annexures

Annexure I: State Baseline

Head and Nodal Officer	Name	Phone	Mobile number	Fax number	Email address
State (Full time appointee)					

State Baselines

S.No	Parameters				
1		Enrollr	ment and GER of the State		
а	Male	Female		Total	
b	Male SC	Female SC		Total SC	
С	Male ST/DT&ONT	Female ST/D	T&ONT	Total ST/ DT&ONT	
d	Male OBC	Female OBC		Total OBC	
е	Male (General)	Female (Gene	eral)	Total (General)	
f	Male (Urban)	Female (Urba	an)	Total (Urban)	
g	Male (Rural)	Female (Rura	l)	Total (Rural)	
2			Degrees Awarded		
		Awarded in 2012	Number that originally enroled in first year of the program	Ratio of degree awarded to enroled	
	3 year Undergraduate degrees			Auto-calculate	
	4 year Undergraduate degrees			Auto-calculate	
	5 year integrated Masters			Auto-calculate	
	2 year masters			Auto-calculate	
3	Total number of PhD degre	ees			
	Enroled annually (i.)	Awarded ann	nually (ii.)		
		Total			
4	Number of research public	ations in India	n refereed journals in the year 20XX-1X		
5	Number of research public	ations in Interr	national refereed journals in the year 20XX	-1X	
6	Number of patents obtaine	ed in the year 2	20XX-1X		
7	Number of sponsored rese	earch projects	completed in the year 20XX-1X		
8	IRG from students' fee and	other charges	in the year 20XX-1X (Rs. In lakh)		
9	IRG from externally funded	R&D projects,	consultancies in the year 20XX-1X (Rs. in la	ikh)	
10	Total IRG in the year 20XX-7	1X (Rs. in lakhs))		
11	Total Number of autonomo	ous colleges in	the State in year 20XX-IX		
12	Total nos. colleges granted autonomy in year 20XX-IX	Total nos. of	autonomy withdrawn in year 20XX-IX		

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13	Total nos. colleges created in year 20XX-IX	Total nos. of colleges closed	d down in year 20XX-IX			
14		Institutional Density (pe	er 1000 sq. km)			
	Institutions (Urban)	Institutions (Rural)	Institutions (Total)			
15	New Institutions created (Urban)	New Institutions created	New Institutions created (Total)			
		(Rural)				
16	Total financial contribution of private sector in Higher Education as a % of total higher education expenditure					
17	Expenditure detail					
	State Expenditure on higher education as a % of GSDP					
	Expenditure on research, development and related activities as % of Total Higher Education Expenditure					
	Expenditure on capital creation as % of Total Higher Education Expenditure					
	Expenditure on salary of teaching staff as % of Total Higher Education ExpenditureExpenditure on salary of non-teaching staff as % of Total Higher EducationExpenditure					

Annexure 2: Evaluation of State Development Proposal

No		Evaluation Parameters	Marks				
Ι	Institutional Preparedness and Implementation Feasibility						
	Α	Clarity of State basic information including baseline data					
	В	Overall proposal implementation feasibility					
		1 Clarity in the identification of general development objectives, related specific objectives, their expected results, and its coherence with SWOT Analysis	5				
		2 Have the key activities been identified clearly and adequately for each specific-objective	5				
		3 Adequacy of the State Project Implementation arrangements	5				
	С	C Quality of SWOT analysis					
		1 Appropriateness for the procedure adopted for the conduct of SWOT analysis and adequacy of participation of stakeholders	5				
		2 Clarity in the identification of strengths, weaknesses, opportunities and Threats	5				
	D Coherence of proposal with National development plan						
	E Reasonability of proposed budget						
	Sub-total (I)						

(to be filled by RUSA Mission Authority, not the SHEC)
F	Scaling-up research and innovation				
	1 Quality of action plan for quantitatively increasing a improving research activities	and qualitatively	5		
	2 Quality of action plan to transfer technology and commercialization of R&D (the innovation agenda)		5		
G	Scaling-up PhD enrolment through existing and ne	w programs10			
н	Scaling-up enrolment into UG/Masters programs in existir programmes10	ig and new			
Research collaborative activities with Institution at National and International le					
	1 Identification of options to improve and increase re collaborations at national and international levels	esearch	5		
	2 Clarity in identification of expected quality enhance doctoral programs and faculty research	ement in Masters an	5		
J	Potential impact and depth of proposed Industry collabo incorporated in the baseline	ration (to be	5		
K	Faculty development				
	1 Pedagogical training		2.5		
	2 Professional development programs		2.5		
L	Identification of weak students and for improvement in t outcomes through finishing school	heir learning	5		
Μ	Gender and Disability to incorporated in the state plan (E	Equity)	5		
		Sub-total (II)	60		
	TOTAL(I+I)		100		

Annexure 4: Institutional Plan Template

Sample Template for Institutional Plan

1. INSTITUTIONAL BASIC INFORMATION

1.1 Institutional Identity:

Is the Institution approved by regulatory body?	: Yes/No
Furnish approval no.	:
Type of Institution	: Govt. funded/Govt. aided/Private unaided/ Autonomous/Other
Status of Institution	: Autonomous Institute as declared by University / Non-autonomous / Deemed University / Constituent Institution
	regulatory body?

• Name of Head of Institution and Project Nodal Officers

Head and Nodal Officer	Name	Phone Number	Mobile Number	Fax Number	E-mail Address
Head of the Institution (Full time appointee)					
RUSA Institutional coordinator					
Nodal Officers for:					
Academic Activities					
Civil Works including Environment Management					
Procurement					
Financial aspects					
Equity Assurance Plan Implementation					

1.2 Academic Information:

• UG/PG/PhD programs offered in Academic year 200X-XX

S. No	Title of programs	Level (UG, PG, PhD)	Duration (Years)	Year of starting	sanctioned annual Intake	Total student strength

- Whether Institution is Accredited?
 - Grade.....
 - When.....

• Accreditation Status of UG programs:

Title of UG programs being offered	Whether eligible for accreditation or not?	Whether accredited as on 31st March 20XX?	Whether "Applied for" as on 31st March 20xX?

• Accreditation Status of PG programs:

Title of PG	Whether eligible	Whether	Whether "Applied for"
programs	for accreditation	accredited as on	as on
being	or not?	31st March 20xX?	31st March
offered			20XX?

1.3 Faculty Status (Regular/On-Contract Faculty as on March 31st, 20XX)

Faculty	Posts					s : N ifica			r in P	ositi	on b	y		culty		culty		
Rank	Regular Posts	1	cto gre			1	stei gree			Bac	helo	or De	gree	ular fao		ract fa		
	of Sanctioned	Engineering	Disciplines	Other	Disciplines	Engineering	Disciplines	Other	Disciplines	Engineering Disciplines Other Disciplines		Engineering Disciplines Other Disciplines		Engineering Disciplines Other Disciplines		Total Number of regular faculty in Position	Total Vacancies	Total Number of contract faculty in Position
	No.	R	C	R	C	R	С	R	C	R	C	R	C	in P	Tota	in P		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15= (3+5+7+9+ 11+13)	16= (2-15)	17= (4+6+8+10 +12+14)		
Prof																		
Asso Prof																		
Asst Prof																		
Total																		

Prof = Professor, Asso Prof = Associate Professor, Asst Prof = Assistant Professor, R=Regular, C=Contract

S. No	Parameters	
1	Total strength of students in all programs and all years of study in the year 20XX-1X	
2	Total women students in all programs and all years of study in the year 20XX-1X	
3	Total SC students in all programs and all years of study in the year 20XX-1X	
4	Total ST students in all programs and all years of study in the year 20XX-1X	
5	Total OBC students in all programs and all years of study in the year 20XX-1X	
6	Number of fully functional P-4 and above level computers available for students in the year 20XX-1X	
7	Total number of text books and reference books available in library for UG and PG students in the year 20XX-1X	
	Student-teacher ratio	
8	% of UG students placed through campus interviews in the year 20XX-1X	
9	% of PG students placed through campus interviews in the year 20XX-1X	
10	% of high quality undergraduates (>75% marks) passed out in the year 20XX-1X	
11	% of high quality postgraduates (>75% marks) passed out in the year 20XX-1X	
12	Number of research publications in Indian refereed journals in the year 20XX-1X	
13	Number of research publications in International refereed journals in the year 20XX- 1X	
14	Number of patents obtained in the year 20XX-1X	
15	Number of patents filed in the year 20XX-1X	
16	Number of sponsored research projects completed in the year 20XX-1X	
17	The transition rate of students in percentage from 1 st year to 2 nd year in the year 20XX-1X for : (i) all students (ii) SC (iii) ST (iv) OBC	
18	IRG from students' fee and other charges in the year 20XX-1X (Rs. In lakh)	
19	IRG from externally funded R&D projects, consultancies in the year 20XX-1X (Rs. in lakh)	
20	Total IRG in the year 20XX-1X (Rs. in lakh)	
21	Total annual recurring expenditure of the institution in the year 20XX-1X (Rs. in lakh)	

1.4 Baseline Data (all data given for the following parameters to ALL disciplines)

2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

- 2.1 Give the Executive Summary of the IDP.
- 2.2 Provide the details of SWOT analysis carried out (in terms of methodology used, analysis and information and data as collected and inferences derived with respect to strengths, weaknesses, opportunities and threats).
 - Based on SWOT analysis, provide the "strategic plan" developed for institutional development.
 - How the key activities proposed in the Institutional Development Proposal are linked with the results of SWOT Analysis.
- 2.3 State the specific objectives and expected results of your proposal (in terms of, "Institutional strengthening and improvements in employability and learning outcomes of graduates". These objective and results should be linked to the SWOT analysis.
- 2.4 Provide an action plan for: (max 1 page each)
 - a) Improving employability of graduates
 - b) Increased learning outcomes of the students
 - c) Obtaining autonomous institution status within 2 years
 - d) Achieving the targets of 60% of the eligible UG and PG programs accredited within two years of joining the Project and 100% accreditation obtained and applied for by the end of the Project of the eligible UG and PG programs
 - e) Implementation of academic and non-academic reforms (details given in RUSA Document)
 - f) Improving interaction with industry
 - g) Enhancement of research and consultancy activities
- 2.5 Provide an action plan for organizing a Finishing School and for improving the academic performance of SC/ST/OBC/academically weak students through innovative methods, such as remedial and skill development classes for increasing the transition rate and pass rate with the objective of improving their employability.
- 2.6 Provide an action plan for strengthening of PG programs and starting of new PG programs.
- 2.7 Attach a summary of Training Needs Analysis carried out. Also, provide Faculty Development Plan for the first 18 months for improving their teaching, subject area and research competence based on Training Needs Analysis in the following areas.
 - Basic and advanced pedagogy
 - Subject / domain knowledge enhancement

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- Attendance in activities such as workshops, seminars
- Improvement in faculty qualifications
- Improving research capabilities
- 2.8 Provide an action plan for training technical and other staff in functional areas.
- 2.9 Describe the relevance and coherence of Institutional Development Proposal with State's/National (in case of CFIs) Industrial/Economic Development Plan.
- 2.10 Describe briefly the participation of departments/faculty in the IDP preparation.
- 2.11 Describe the Institutional project implementation arrangements with participation of faculty and staff.
- 2.12 Provide an Institutional project budget as per table below:

Institutional Project Budget (this is meant for existing institutions)

(Rs. in Crore)

S.		ے Finan		ncial y	/ear		
No	Activities	Project Life Allocation	2012-13	2013-14	2014-15	2015-16	2016-17
1	Infrastructure						
	1. Modernization and strengthening of laboratories						
	2. Establishment of new laboratories for existing UG and PG programs and for new PG programs						
	3. Modernization of classrooms						
	4. Updation of Learning Resources						
	5. Procurement of furniture						
	6. Establishment/Upgradation of Central and Departmental Computer Centers						
	7. Modernization/improvements of supporting departments						
	8. Modernization and strengthening of libraries and increasing access to knowledge resources						
	9. Refurbishment (Minor Civil Works)						
2	Research and development support						
	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines						
	Provision of resources for research support						
	Enhancement of R&D and institutional consultancy activities						

3	Faculty Development Support			
	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA			
4	Institutional reforms			
	Technical assistance for procurement and academic activities			
	Institutional management capacity enhancement			
5	Academic support			
	Creation of new departments/courses			
	Enhanced Interaction with Industry			
	Student support activities			
6	Others			
	TOTAL			

2.13 Provide the targets against the deliverables as listed below

Indicator	Weightage	Present Rating	Present Score	Target Rating	Target Score
GOVERNANCE QUALITY INDEX - 16%					
% of Faculty Positions vacant	2.0%				
% of Non-permanent faculty	4.0%				
% of Non-teaching staff to teaching Staff	3.0%				
Total no of under graduation programs	1.0%				
Total no of post graduate programs	1.0%				
Total no of doctoral programs	1.0%				
Faculty appointment - turn around/cycle time in months	2.0%				
Delay in payment of monthly salary payment of faculty	2.0%				
ACADEMIC EXCELLENCE INDEX - 21.5%					
Delay in exam conduction and declaration of results	3.5%				
Plagiarism Check	1.0%				
Accreditation	4.0%				
Teacher Student ratio	4.0%				
% of Visiting professors	1.0%				
% of graduates employed by convocation	0.5%				
% Number of students receiving awards at National and International level	0.5%				
% of expenditure on Library, cyber library and laboratories per year	1.0%				

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Ratio of expenditure on teaching staff		 	
salaries to non-teaching staff salaries	1.0%		
% of faculty covered under pedagogical			
training	1.0%	 	
% of faculty involved in "further education"	0.5%		
Dropout rate	1.5%		
No of foreign collaborations	1.5%		
Subscription to INFLIBNET	0.5%		
EQUITY INITIATIVE INDEX - 12.5%			
SC Student%	3.0%		
ST Student%	3.0%		
Gender Parity	3.0%		
Urban to Rural Student population	2.0%		
Existence of CASH	0.5%		
Existence of Social Protection Cell	0.5%		
Language assistance programs for weak			
students	0.5%	 	
REASERCH AND INNOVATION INDEX - 24%		 	
Per-faculty publications	2.0%	 	
Cumulative Impact Factor of publication	3.0%		
H Index of scholars	2.0%		
% of staff involved as principal researcher	1.0%		
% of research projects fully or more than 50% funded by external agencies, industries etc	2.0%		
Total no of patents granted	1.0%		
% of faculty receiving national/international awards	1.0%		
% of research income	1.0%		
Doctoral degrees awarded per academic staff	1.0%		
% doctoral degrees in total number of degrees awarded	3.0%		
% expenditure on research and related facilities	1.0%		
Digitization of Masters and Doctoral thesis	0.5%		
UPE/CPE	3.5%		
% of Income generated from non-grant sources	2.0%		
STUDENT FACILITIES - 15%			
No of new professional development programs	1.0%		
Existence of Placement Cells and Placement Policy	1.0%		
% of expenditure on infrastructure maintenance and addition	3.0%		

Availability of hostel per out-station female student	3.0%		
Availability of hostel per out-station male student	2.0%		
% of students on scholarship	2.0%		
Average scholarship amount per student	1.0%		
Student Experience Surveys	1.0%		
Graduate Destination Surveys	1.0%		
Infrastructure and Others - 11%			
%Income generated from training courses	1.0%		
% Income generated from consulting	1.0%		
Infrastructural sufficiency	3.0%		
Computer coverage	3.0%		
Internet connectivity of Campus	3.0%		
	100.0%		

Project Targets for Institutions

2.14 Give an action plan for ensuring that the project activities would be sustained after the end of the Project.

Evaluation of Institutional Development Proposals (IDP)

S.No	Evaluation Parameters				
I	Institutional Preparedness and Implementation Feasibility				
	Α	Clarity of institutional basic information including baseline data			
	B Overall proposal implementation feasibility				
		1	Clarity in the identification of general development objectives, related specific objectives, their expected results, and its coherence with SWOT analysis	5	
		2	Have the key activities been identified clearly and adequately for each specific-objective	5	
		3	Adequacy of the Institutional Project Implementation arrangements	5	
	С	Quality of SWOT analysis			
		1	Appropriateness for the procedure adopted for the conduct of SWOT analysis and adequacy of participation of stakeholders	5	
		2	Clarity in the identification of strengths, weaknesses, opportunities and threats	5	
	D	Co	herence of proposal with State's/regional development plan	5	
	Ε	Reasonability of proposed budget		5	
			Sub-total (I)	40	

F	Scaling-up research and innovation				
	1	quality of action plan for quantitatively increasing and qualitatively improving research activities	5		
	2	quality of action plan to transfer technology and for commercialization of R&D (the innovation agenda)	5		
G	Scaling-up PhD enrolment through existing and new programmes		10		
Η		aling-up enrolment into UG/Masters programmes in existing and new ogrammes	10		
I	research collaborative activities with Institution at National and International leve				
	1	identification of options to improve and increase research collaborations at National and International levels	5		
	2	clarity in identification of expected quality enhancement in Masters and doctoral programmes and faculty research	5		
J	Potential impact and depth of proposed Industry collaboration		5		
Κ	Faculty development including pedagogical training to:				
	1	Develop faculty/technical staff in subject domain	5		
	2	Improve pedagogical skills of faculty for better student learning	5		
L		entification of weak students and for improvement in their learning tooms through finishing school	5		
		Sub-total (II)	60		
		TOTAL (I+II)	100		

Annexure 5: Entitlement Index for Higher Education

A formula based allocation of grants takes into consideration several parameters identified mainly on the basis of need and performance based criteria. The choice here is dictated by the availability of data. Three parameters are identified under the need-based criterion. These are population in the 18-23 age group, per capita income, and GER. Seven parameters are identified under the performance based criterion which include improvement in GER, state expenditure on higher education, college-population index, institution density, teacher-student ratio, quality, educational achievement in levels prior to higher education. In case of some of these parameters, more than one indicator is considered for assessing the performance. Hence, in total, there are 19 indicators (see Table 3.1)- Rationale for the inclusion of each of these indicators shall be elaborated. A small part of the allocation can be kept aside for special problems.

SI. No.	Criteria	Weights
1	Population (Age Group: 18-23) (Criteria reflecting Equal Per Capita Transfers)	+40
2	Per Capita Income (Criteria Reflecting Fiscal Deficiency)	-10
3	Gross Enrolment Ratio (Criteria Reflecting Shortfall in Enrolment)	-10
4	Performance	
	A. Improvement in GER (over 5 Years) (2006-07 to 2011-12)	
	A.1 GER- All categories	+10
	A.2 GER- SCs	+5
	A.3 GER- STs	+5
	A.4 Gender Parity Index (Over 5 Years) (2006-07 to 2011-12)	
	A.4.1 GPI- All Categories	+10
	A.4.2 GPI- SCs	+5
	A.4.3 GPI- STs	+5
	B. Expenditure on Higher Education	
	B.1 Per Capita Expenditure	+10
	B.2 Expenditure as % of NSDP (1)	+10
	C. College - Population Index	-5
	D. Institutional Density	-5
	E. Teacher - Student Ratio	-5
	F. Research Output	+10
5	Special Problems	+25
	TOTAL	100

Table 3.1: Criteria and Weights for Equalization Grants

(+) Positive means – higher value – larger entitlement

(-) Negative means - higher value - lower entitlement

Research output will be determined by indicators such as number of research paper published in National & International Journals, number of M.Phil., Ph.Ds. guided, number of collaborative research projects, patents generated citation impact

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