CHAPTER – IV
UNESCO ON HIGHER EDUCATION

4.1 INTRODUCTION

Within the United Nations system, UNESCO represents the linchpin and the main framework for co-operation in the field of education. By the terms of its Constitution, UNESCO’s Member States have explicitly laid down that its responsibility is to contribute to peace and security by promoting collaboration among the nations through education, science and culture in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the peoples of the world. This means that its mission is first and foremost an ethical one, and that its action to promote education throughout the world is geared wholly to the attainment of these ideals.

UNESCO can generate new thinking among educationists, draw upon the wide range of their experience, stimulate and marshal their energies in order to build the future. It is this unique position that constitutes its strength and its originality, and that determines the methods and forms of its action. Such action is more concerned with quality than with quantity. Whether it involves promoting information exchange between countries, convening meetings of ministers of education, drawing up and securing the ratification of international conventions, providing advisory services or carrying out as part of its operational work specific practical projects in its various Member States, the role played by UNESCO is essentially one of conceptual stimulation, clarification and enrichment, encouraging action and giving focus to it, catalysing efforts, providing technical support and generally striving to ensure that all educational work produces a maximum multiplier effect.

UNESCO endeavours to promote among those responsible for education a better Knowledge and Understanding of experiments, problems and trends throughout the world, and to encourage more intensive thinking about them, with a view to making available to Member
States data and frames of reference that will help them to define more clearly the objectives and priorities of their educational development and the means of attaining them. It thereby helps to establish sound foundations for educational planning and to enhance the efficacy of the educational process and its contribution to personal fulfillment and to economic, social and cultural development (UNESCO, 1973).

UNESCO also endeavours, more directly, to further knowledge of educational problems from an international stand-point, by carrying out or by commissioning studies on a range of subjects relating to various levels and kinds of education. Studies are also focused on particular regions and specific educational problems arising in individual countries. It organizes regional conferences of ministers of education, international intergovernmental conferences (such as the International Conference on Education), international congresses and meetings of specialists, in whose work it associates other intergovernmental institutions (such as UNDP, ILO, FAO), non-governmental organizations specializing in education and the teachers organizations, for helping countries to clarify their approach to educational problems and to work out the means best calculated to solving them (UNESCO Regional Office for Educational Asia and the Pacific, Bangkok, 1982).

In order to enable Member States to turn the knowledge and experience made available to them by the international community to optimal account, UNESCO seeks to encourage their practical application, in specific contexts, with a view to providing solutions for practical problems and developing innovatory approaches designed to improve performance in various fields of education. This activity takes the form of pilot projects or large-scale regional projects carried out in Member States. It is supplemented by the publication of handbooks and guidebooks (on science teaching and technology, literacy training) and synoptic studies (on the planning and financing of education, educational content and methods).
4.2 UNESCO ON HIGHER EDUCATION

UNESCO's policy towards higher education seeks to reinforce its role and function in the light of profound political, social and economic transformations occurring in society today. Higher education is not only the repository of knowledge and values, it is also an agent for change, whose influence can extend to every other level of education. It is, therefore, a crucial ally in the search for better ways to meet the challenges of the twenty-first century. Based on the outcome of regional consultations on new roles of higher education, UNESCO has prepared a policy paper on higher education. UNESCO relies on many forms of cooperation to improve the quality, relevance and efficiency of higher education: the strengthening of regional centres and networks; assistance to Member States in reforming their national systems; organizing high-level conferences of Ministers of Education or other decision-makers; normative actions such as conventions and recommendations; and dissemination of research results. The two regional centres – UNESCO European Centre for Higher Education (CEPES) located in Bucharest, and the Regional Centre for Higher Education in Latin America and the Caribbean (CRESALC) in Caraca – promote regional co-operation and assist Member States in their efforts to develop and improve national systems of higher education (Clayson, 1995).

As socio-economic development is becoming more knowledge-intensive and is relying increasingly on professional and managerial specialists with advanced training, the role of higher education becomes a crucial element, hence UNESCO's increased involvement in higher education, which at the turn of the century is faced with many problems and the search for solutions often goes far beyond national frontiers (UNESCO and International Association of Universities (IAU), 1965).

UNESCO sees it as one of its important tasks to encourage the exchange of information and experience on trends and developments in higher education, promote thinking and research on its roles and
function, and, ultimately, assist Member States in their efforts to develop their high-level training and research capabilities. It accordingly gears its action to reinforcing sub-regional, regional and international co-operation, the major undertaking being the UNITWIN and UNESCO-Chairs Programme.

UNESCO is committed to improving university science education and scientific research. To do so it fosters curriculum reform, teacher training, exchange opportunities and the introduction of teaching modules that make creative use of modern audio-visual technologies and pooled experiences in the classroom. Regional and international co-operation are encouraged at every level (Clayson, 1995).

UNESCO is also the only organization within the United Nations system to have mandate for the basic sciences – mathematics, physics, chemistry and biology. These basic sciences, plus engineering, are essential building blocks for developing the human resources and national capacities on which the advancement of science and technology depend. Increasingly, science and technology are being harnessed for sustainable development.

Since 1988, the Collective Consultation on Higher Education, comprising more than twenty NGOs, has assisted UNESCO in its programmes by engaging in the analysis of key issues and co-operative action. Among these issues is the role of higher education in the improvement of the education system itself. In this regard, its major contribution lies in the training of all categories of educational personnel. (UNESCO, 1995).

4.3 OBJECTIVES OF HIGHER EDUCATION

Higher education is viewed by UNESCO as a means to an end, the means being societal development, quality of life, reduction in the educational disparities, diffusion of knowledge which, in turn, has to fulfill the end objective of creation of peace in the minds of men (UNESCO, 1972).
UNESCO has sought to move the countries of the world towards harmonious, sustainable development and to correct imbalances. This implies (UNESCO, 1995):

- both further internationalization and further contextualization, in the design of programmes of teaching and research and the networking of those programmes as well as in the application of standards ("think globally and act locally");

- more fundamental research and more applied research, since they cross-fertilize each other and are essential to development thought of in other than merely short-range terms;

- increased priority concern for the problems standing in the way of sustainable development, such as poverty, hunger and violence, or problems in health, education and the environment.

The objectives to be attained through higher education as per (UNESCO, 1998) are as follows:

i) Universal access for all those who possess the requisite abilities, motivation (access and merit) and suitable preparation, at all stages of life.

ii) Employment of varied forms of interventions to meet educational needs for all and at all stages of life.

iii) Higher education implies that its purpose should be not only to train but to educate.

iv) To perform the function of vigilance and of consciousness-raising.

v) To play a guiding ethical role at a time of crisis of values.

vi) To develop through all its activities, a culture of peace.

vii) To build up links of universal solidarity with other institutions of higher education and with other institutions of society.

viii) To work out a mode of management based upon the dual principle of responsible autonomy and transparent accountability.
ix) To improve university level teaching by stipulating standards of quality and relevance that go beyond standards specific to particular contexts.

x) Higher education implies that its ultimate axiological principle, subsuming all the others, should be to work for the unity of women and men within a framework of mutually supportive differentiation and complementarity.

4.4. UNESCO REGIONAL/SPECIFIC POLICIES

4.4 (i) The Asia and Pacific Region and its Higher Education Systems

The higher education institutions and systems of Asia and Pacific operate in a vast geographic region which contains some 3.5 billion people, or 61 per cent of the world's population. The region has 56 per cent of the world’s school population, but only one-third of the world’s higher education enrolment. Further, the region has only 28 per cent of the world’s wealth, but in recent years the economic growth rate has been at a spectacular rate of 6.7 percent. As already noted, the countries of the region differ greatly in size, ethnicity, social characteristics and recent economic development. Its smallest state is Niue with 2000 people while the largest, China, has 1.2 billion people. The region includes the world’s third richest country Japan. The region also provides contrasts between nations which have for many years operated market economies and the newly-independent countries of Central Asia which face the considerable challenges in the transition from planned to market economies (UNESCO, 1998).

Population issues continue to be a major issue facing the region. While the region has some of the world’s largest cities, a high proportion of the population live in rural areas. About 1.5 billion are children and young people under 15 years of age. While the population growth rate has declined decidedly in a number of the advanced economies, in many developing countries, despite various efforts of governments and NGOs, population growth continues at a rate that gives great cause for concern.
Rapid population growth often is associated with increasing inequalities within countries and in relation to nearby countries while industrialisation has produced marked internal migration from rural areas to major cities, thus placing great strain on housing infrastructure and services (UNESCO, 2000).

International economic interdependence and competition continue to have a major impact within the region, while for many countries membership of the WTO will mean that the pace of market integration in future will be even faster. Many political and business leaders in the region are well aware of the challenges of globalization and international economic competitiveness and argue that it is essential that the countries of the region adapt in order to cope and to capitalize on new opportunity to increase trade and wealth and forge strategic alliances, while main risks are for those nations which are unable to compete and with globalization societies are increasingly exposed to external influences. While many external influences are regarded as being beneficial, others clearly threaten traditional values and cultural traditions (UNESCO, 1991).

The increasing pace in implementation of new information technologies and multi-media is having a major impact on business, government administration and everyday life. Information technology provides the ability to store and quickly process large amounts of information as well as provide easy access to knowledge all over the world. Its application in commercial and educational settings has provided obvious benefits, but unless this new technology is widely shared the fault-lines between the countries of the region are likely to deepen rather than lessen.

International developments in science and technology continue to have a major impact on economic development and lifestyle. Until recently most countries of the region were importers and consumers of technology, but many rapidly growing industrialized regional economies increasingly recognize that to sustain competitiveness it is necessary to establish and
nurture a scientific society, as well as to accelerate and intensify the application of technology in various sectors of the economy. This, in turn, places new demands on higher education in the training of researchers and technologists, and in working co-operatively with industry in R&D (Panikar, 1985).

Industrialization, poorly planned urban development, demands for raw materials for industry and poor farming practices have all contributed to serious environmental degradation that poses a major threat to continued prosperity and the quality of life. At the same time, national leaders believe that higher education has the capacity to make a major contribution in dealing with such problems. While much of the broader community concern about higher education policy relates particularly to student access and the provision of trained personnel, both political leaders and leaders of higher education in many countries stress that higher education should be playing a key role in dealing with environmental and social problems and in protecting values, addressing moral and ethical issues, and helping maintain society's cultural heritage. As the countries of the region are being drawn closer together through increased trade and better transport and communications, at the same time the same forces help foster within each country a sense of identity and rediscovery of the cultural heritage. At the same time, in some cases, religious fundamentalism, ethnic nationalism and narrow culturalism pose a threat to harmony.

The higher education systems of the Asia and Pacific region can look back with considerable pride to their achievements over many years. While many of institutions and systems were created in the colonial period, they also draw on much older indigenous traditions of learning and scholarship (UNESCO, 1982).

Significant progress has been made in recent years in the development and strengthening of higher education with the countries of the region, particularly leading to improved student access, strengthened research and post-graduate programmes, more equitable representation
of different social groups among graduates, renewal of curricula and adoption of new teaching and delivery methods, and enhanced institutional management and strategic planning capacity. At the same time, many nations are still far from achieving the number and quality of graduates as required by the new competitive economic situation. Further still, higher education in many countries is under considerable strain. Student enrolments continue to increase resulting in further pressure on public funding; the level of financial resources is often considered inadequate; and the tremendous growth in enrolments without adequate provision of resources has led to deterioration in quality. Unemployment of graduates in some fields, especially in countries undergoing rapid transition, and lack of highly-qualified professionals generally in less-developed nations, have unfortunate long-term consequences for a number of countries with regard to the quality of courses, facilities, staff and graduates and the deterioration of infrastructure (laboratories, buildings and libraries) and a lack of scientific equipment (UNESCO, 1993).

As a result of international developments in science and technology and their impact on both economic development and social lifestyle, new demands have emerged for increased numbers of researchers, technicians and other specialized professionals and for an increased level of co-operation with industry in Research and Development (R&D). Frequently there are serious mismatches in the demand for and supply of highly-trained personnel, especially in countries undergoing rapid economic growth and industrialization.

Gender inequality, particularly among students, academic staff and senior management, continues to be an issue of considerable concern at all levels in the majority of countries. In a small number of countries, female participation at the undergraduate level has approached or exceeded 50 per cent of enrolments, but generally female participation is still disappointingly low and female students continue to be concentrated in ‘traditional’ feminine disciplines. In many counties, women constitute
no more than 20 or 30 per cent of academics. In many countries, higher education institutions are heavily concentrated in urban areas, whereas the majority of the population lives in rural areas, thus requiring new mechanisms to address rural disadvantage; other disadvantaged sectors of society, such as those with disabilities, are not adequately served (UNESCO, 1998).

Dramatic increases have occurred in the number of private higher education institutions, with accompanying diversification in structures, curriculum and teaching methods and management approaches resulting from both internal factors (such as changes in academic disciplines and new instructional methods) and external factors (such as population growth, the need to cater for more diverse clienteles and changing labour market requirements). Particularly important has been the development of non-university institutions and the establishment of open universities and distance learning systems (UNESCO, 1998).

In many countries, teaching and learning procedures are often based largely on memorization and recall, and do not place sufficient emphasis on the development of analytical and problem-solving skills. Frequently, under emphasis is placed on the immediate utility of knowledge rather than on fundamental wisdom, while the persistence of dogmatic approaches in education seriously hinders the development of enquiring minds. Lack of close links between universities and other post-secondary schools is a matter of on-going concern and adversely limits the possibilities for productive partnerships.

4.4.(ii)(a) Regional/Specific Policy Issues

While for many countries in the region, the major challenge remains increasing access and participation in basic education, for more advanced countries the biggest challenge will be expanding higher education in the years to come. Continued productivity improvements and technological progress will demand increasingly sophisticated education and training (Williams, 1977).
In the less-favoured countries, financing of higher education is a critical issue to be addressed. As an example, public spending on higher education rose to 7 percent a year in South East Asia between 1980 and 1992, faster than in any other region of the world. Paradoxically, the amount spent per student during the same period decreased as total enrolment increased considerably. In general terms, the expenditure incurred by Asia-Pacific countries on higher education per student was lower than Latin America, Middle East or Sub-Saharan Africa. (UNESCO Principal Regional Office for Asia and the Pacific, 1998).

This picture has considerable implications for the resource allocation capacity of Asian nations. The expansion of higher education and the improvement of its quality are likely to become serious burdens on government budgets. Planners and decision-makers will be increasingly obliged to identify a delicate balance between public and private provision, with a pronounced trend towards private financing. A picture is starting to emerge with Governments on the one hand playing a clear role in orienting and supporting research, setting standards, and assuring access and equity, and on the other, individuals having to take on a greater part of their higher education costs. In spite of the unpopular character of this political measure, this seems to be the only way to ensure continued quality improvement in higher education.

Across the board, the main reason for the expansion of higher education in the region is the remarkable and widespread expansion that has occured at the lower levels of the education system. The combination of large numbers of school-age children and higher rates of secondary school enrolment has created enormous pressure for expanding higher and tertiary education. This, in turn, has raised difficult financing issues exacerbated by the expected increase in the share of university students who study science, medicine and engineering, areas that are traditionally very costly.

Another issue to be highlighted concerns the expected demand for university enrolments in the Asia-Pacific, projected to be nearly triple.
over the next two decades. Partly because of the difficulty of securing admission to local universities and due to the superior knowledge and skills attributed to foreign universities, an increasing share of Asian students attend universities abroad, usually at considerable cost (UNESCO Principal Regional Office for Asia and the Pacific, 1998).

With regard to academic staff, gender disparity remains a major issue to be tackled. In some countries, women constitute 20 to 30 percent of the academic personnel, while in others women are virtually excluded from academic life. In the areas of relevance and quality, serious mismatches appear in the demand for and supply of qualified personnel, particularly in countries undergoing rapid economic transformation. This sometimes leads to paradoxes like having unemployed graduates while vacant academic posts can not be filled by supposedly qualified candidates.

Consequently, as a result of dwindling public resources and increased demand from lower levels, recent years have witnessed a dramatic explosion of private higher education institutions (public institutions have also expanded dramatically, thanks to distance education delivery modalities). This growth has had a direct impact on the diversification of structures, curriculum reform and review, the management of the system and competition with the public sector.

From the financial perspective, total spending on higher education as a whole is expected to increase dramatically between 1992 and 2002 with an annual growth rate of some 7 percent. Total annual expenditure are likely to reach some US $58 billion by 2002. These projections are based on increases in the population of university age people, future enrolment ratios and evolution in the spending per student.

Therefore, the case for the financing of higher education has been clearly an issue to be thoroughly considered by the Member States. Public funding of higher education has been certainly much less compelling than that of primary and secondary education. While it could be argued that the social returns of higher education are not small, they are, however,
lower than those generally linked to primary and secondary education. By its own nature, higher education has also a smaller impact on the non-income related aspects of the quality of life than have primary or secondary education. The picture is furthered by traditional patterns showing that well-to-do youngsters from predominantly urban families are the most likely to enter the system. And the latter situation is unlikely to change favourably in a foreseeable future, especially within the context of the current crisis (UNESCO Principal Regional Office for Asia and the Pacific, 1998).

These issues relate directly to the increasing concerns in many Asia-pacific countries with regard to the quality and relevance of the higher education courses, facilities, personnel, staff, outputs of the system and integration to the labour force, and overall deterioration of available infrastructure.

(b) Research Functions of Universities

Ideally, in order to fulfill its mission to society, every system of higher education was supposed to have the capacity to carry out research and have staff who are actively involved in research activities. At a minimum, postgraduate studies and research has been encouraged and findings provided so that the academic staff can keep pace with the development of knowledge in the subject areas. A second reason for ensuring that higher education has a research capacity is that this provides trained personnel who can effectively access the international body of research knowledge and so facilitate technology transfer to local industry (UNESCO, 1998).

In a number of countries there is sometimes a tendency to downplay the importance of the research and the creative role of universities.

However, Angara (1997) has opined that:

*Graduates are not the only products of higher education. Of far greater worth is the wealth of original ideas and concepts generated by a community of interacting scholars, scientists, thinkers, artists,*
writers and students. Their minds range freely and fearlessly in the exciting adventure of creation, inquiry, analysis and synthesis thriving luxuriantly in the subsoil of the academe... They could be (as some are) harnessed by the government and private sectors where they could apply their disciplined and informed minds on practical problems to come up with pragmatic solutions.

Because of pressure on resources, in some countries over the past decade research funding has been reduced, with the result that there has been a serious deterioration in capacity to carry out research and to offer high-quality postgraduate research training. But in other countries, such as Australia, Japan and New Zealand, research funding has increased appreciably and special efforts have been made to establish new research centres and build additional links between universities and industry. In Australia, since 1991 considerable funds have gone into the establishment of some 65 cooperative research centres, which link universities, government research laboratories and industry, whereas in Japan increased funds have been available to researchers, a programme of fellowships for young researchers has been expanded, and centres of excellence have been established with a budget of 11.4 billion yen in 1996 (UNESCO, 2000).

A major policy dilemma for higher education systems and research universities is how scarce research resources should be distributed and what mechanisms should be employed to do this. In a number of advanced economies a common approach is to allocate an increasing proportion of research funds by competition using peer review of various performance indicators (UNESCO, 1998).

Another policy dilemma relates to the balance between basic and applied research. While effective applied research needs to be supported by basic research, the actual mix of basic and applied within a higher education system varies greatly, depending on government and institutional priorities, and the respective roles in research of higher education and industry within the country (UNESCO, 1987).
An important traditional value associated with research is that the results should be widely shared through publication so that both the scholarly community and society at large may benefit. Also the publication of results means that the results of research are available for critical scrutiny by academic peers. Modern communications technology provides exciting possibilities for overcoming barriers of distance and time in the communication of research results; these modern technologies and the global linkages are creating a commonwealth of knowledge, a broad access to a worldwide scientific and technological knowledge and the richness of multicultural interpretations of values and meanings. The modernized university is a participant in a global intellectual community active in discussion and debate, in the testing of hypotheses and theories, in the sharing of results. To be full and equal participants in exchange, universities linked to the exciting world made possible by modern technology adhere to international standards of research and scholarship. The contemporary university, as the university of the past, continues to belong to a particular place and a particular time, but now the university can transcend place and time as a participant in a linked interactive world of knowledge (Ping, 1997).

However, at the same time, research partnerships with industry mean that in some cases research results cannot be immediately shared because of their commercial value. For the future, intellectual property issues are likely to be of increasing importance to research managers and research-funding agencies.

Higher education has an important contribution to make in community service and in assisting other education sectors in society, but often there is some measure of disappointment with performance, especially with that of more traditional universities. This is unfortunate, since close links with the community and the other education sectors can do a great deal for universities in building wide community and political support, achieving renewal of the curriculum, and sometimes generating new forms of financial support. The last point is particularly important
since in the current environment of financial constraint there is often a strong tendency for universities to decrease or abandon much of their more traditional community service.

Another area where universities can make a major contribution that will have direct benefits in the longer term for higher education is direct involvement in the "training of school teachers and staff development activities for teachers". Strengthening the quality of teaching in schools in time will lead to better prepared university students. In addition, universities can often provide special expertise to assist schools and school systems in "curriculum reform" and in the design of new teaching and evaluation approaches.

4.5 UNESCO'S ACTIVITIES AND PROGRAMMES RELATING TO HIGHER EDUCATION

According to its commitment, UNESCO has touched upon all the fields of Higher Education like teaching and the curriculum, teacher training, exchange opportunity: both educational and cultural, introduction of teaching modules, modern audio-visual technologies, pooled experiences, regional and international cooperation.

4.5 (i) Teaching and the Curriculum

UNESCO saw the need for further renewal of teaching and learning approaches and for renewal of curricula. It has been argued that higher education institutions should be more responsive in meeting the needs of employers and adapting to the generation of new knowledge in the various academic disciplines. Curriculum and evaluation methodology should be modified as to provide a better correlation between performance in academic courses with similar levels of achievements in professional life. New approaches are needed to both classroom and distance education teaching practice, while there is need for greater emphasis on inter-disciplinary and multi-disciplinary studies, and alternate vocational education programmes to traditional university courses (UNESCO, 1998).
The concept of lifelong learning is, of course, of utmost importance. In rapidly changing economies, the labour market would constantly require new and different skills and so mechanisms must be enhanced to allow professionals to upgrade their skills at regular intervals and develop new competencies. People's needs for lifelong learning have expanded in all countries of the region. Higher education institutions thus must offer learning opportunities in response to diverse demands and work co-operatively with other agencies and employees to ensure that appropriate courses and developmental opportunities are widely available. Ready access and flexibility in timing are of utmost importance.

UNESCO has stressed that education courses be made available to school-leavers who are unable to secure places in universities and colleges (UNESCO, 1998).

4.5 (ii) Teacher Education and Training of Educational Personnel

All countries in the region essentially agree with the Delores Report (1998) that good institutions require good teachers. Yet at the very time that so much is expected of teachers, in most countries, it is becoming increasingly difficult to recruit the best people into the occupation, while the status and working conditions of teachers are a particularly low-ebb.

Countries agree that there are significant changes in teaching contexts and pressures, all of which impact significantly on teachers' work. These include: the emergence of new technologies; the changing educational policy environment; the trend towards more rigorous monitoring and evaluation; and an increasing concern for quality and relevance.

Priority is given to training and advanced training which have what are known as 'multiplier effects'. This is why regional or sub-regional training seminars are organized for teachers, instructors, inspectors and, of late, school principals, all of whom pass on the training they have thus received to the staff under them.
In the field of training for educational personnel, as in many others. UNESCO carries out standard-setting action. In elaborating conventions and recommendations – the 1966 Recommendation on the Status of Teachers, in particular – it suggests common objectives for all its Member States. Thus, UNESCO organizes operational seminars in the different regions for the training of educational personnel, for which it prepares, as working tools for the participants, documents based on the experience gained by the Organization’s Member States from the discussions, recommendations and documentation of inter-governmental conferences, from studies and surveys and from operational action – documents which the participants revise themselves in the course of the seminar. These synoptic documents are not so much studies as bases for action or practical guides, to emphasize this aspect. UNESCO works out training plans, programmes or strategies on the basis of these guides, or gives them the character of methodological tools, suitable for adaptation to different audiences or different circumstances, but specific enough to make possible the acquisition of particular skills, for testing at regional seminars (UNESCO, 1981).

4.5. (iii) Technical and Vocational Education

As mastery of science and technology is indispensable for national progress. UNESCO is striving to promote endogenous development of science and technology teaching and is, therefore, helping to expand the national structures needed for the development of curricula, materials and facilities, as well as for teacher-training. A special stress has been laid on research in basic and engineering sciences, keeping in mind the special needs of developing countries like India in this regard.

Over the past few years, UNESCO has concentrated on updating the scientific content of curricula, on establishing closer links between science and technology education, practical life and the world of work, and on developing extra-curricular popularization programmes. A major international congress on the relationships between science
and technology teaching and national development was held in 1981 (Panikar, 1985).

Under the International Project on Technical and Vocational Education (UNEVOC), 37 country case-studies and regional syntheses were prepared on the role of technical and vocational education in education systems in each region of the world.

National profiles on technical and vocational education in 21 Member States of the Asia and Pacific region were prepared in co-operation with the Colombo Plan Staff College for Technician Education. A set of guidelines for studies on policy and legislation concerning the relationship between technical and vocational education and the world of work was developed and disseminated.

Research projects, seminars, symposia, workshops, meetings etc. have been organised by the member states in various regions of the world to deliberate on various aspects of Technical and Vocational education, one of such meetings was organised in India.

A regional meeting on Technical and Vocational Education Curriculum Development and Adaptation held in India (December, 1994) resulted in the compilation of a guidebook on curriculum development for technical and vocational education.

The UNEVOC Directory was developed in 1995 by the Berlin Implementation Unit, including 135 UNEVOC Centres and UNEVOC Associate Centres in approximately 100 Member States, as well as ten regional and international organizations. This Directory has also been included in the CD-ROM Key UNESCO Data on Education. An Inventory of UNEVOC Activities (1992-1995) was published and disseminated.

4.5. (iv) Higher Education for Sustainable Future: Environment, Population, and Development

UNESCO has sought:

(a) to implement the inter-sectoral project entitled "Educating for a Sustainable Future" in order to continue to promote concerted
inter-agency action at country level to foster public awareness of and education for a sustainable future, in particular by enhancing Member States' capacities to integrate into educational programmes at all levels, both formal and non-formal, relevant educational components; to develop appropriate population policies and programmes; and to that end to promote the integrated follow-up to the United Nations conferences of the 1990s and the post-Rio conventions, and UNESCO being the Task Manager for Chapter 36 of Agenda 21, to intensify the implementation of the International Work Programme of the United Nations Commission on Sustainable Development in collaboration with all relevant international and national partners;

(b) to allocate for this purpose an amount of $1,610,000 for programme costs, $6,100,500 for staff costs and $448,500 for indirect programme costs.

It was sought in the framework of this project, together with UNESCO partners, to foster for addressing interwoven issues of environment, population and development including poverty, health and wasteful consumption and production patterns (UNESCO, 2000).

(a) **Strategy** is to consolidate and expand the ongoing activities aimed at renewing and enriching curricula, teaching/learning materials and teacher education. Emphasis would continue to be placed on reorienting education programmes at all levels – both formal and non-formal – with special attention to the emerging open, distance and community learning systems. By working closely with all programme sectors, including the intergovernmental scientific programmes, efforts will be made, particularly through the field offices to enhance interdisciplinary action at national and local levels. Assistance to Member States would be provided to design policies and programmes, build capacities and mobilize resources for further developing education for sustainable development, in particular through the innovative inter-agency cooperation and joint
action initiatives at country level, which would be reinforced and expanded. Education, training and awareness-raising activities with particular emphasis on the conventions to combat desertification (CCD) and biological diversity (CBD) and as well as the sustainable management of freshwater resources would be strengthened. UNESCO's action, which would be undertaken mainly through the field offices, would emphasize technical assistance, capacity-building through training and dissemination of prototype materials and best practices and regional networking (UNESCO, 2000).

- As a result the population education policies and programmes at country-level have been improved, in particular through continued participation in the inter-agency TSS-CST system and the implementation of the recommendations of the five-year review of the International Conference on Population and Development (ICPD+5) pursued (UNESCO, 2000).

(b) Environmental Education

Echoing the concern aroused by the deterioration of the environment, the international community, meeting at the United Nations Conference on the Human Environment (Stockholm, 1972), recommended, among other priority measures, that the organizations of the United Nations system, especially the United Nations Educational, Scientific and Cultural Organization should take the necessary steps to establish an international programme in environmental education, interdisciplinary in approach, in-school and out-of-school encompassing all levels of education and directed towards the general public with a view to educating (the ordinary citizen) as to the simple steps he might take, within his means, to manage and control his environment.

With the co-operation and financial support of the United Nations Environment Programme (UNEP), UNESCO has been engaged since 1975 in educational action at the international, regional and national levels aimed at developing an awareness and understanding of the problems of
the present-day environment, as well as an ethical outlook and behaviour conducive to the solution of such problems (M'Bow, 1985).

UNESCO’s action, guided by the recommendations of the Intergovernmental Conference on Environmental Education which it organized in 1977 at Tbilisi (USSR), has had a three-fold aim. First of all, through appropriate activities – such as the holding of international, regional and national meetings and seminars, the publication of books and information bulletins, etc. – UNESCO has encouraged a wise exchange of views and findings on the issue. As a result, a new perception of the environment is becoming current, along with awareness of the worldwide scope of the related environmental problems, the imbalances characteristic of international economic development and international relations leading to the irrational use of natural resources.

UNESCO has also contributed to the clarification of the concept and pedagogical definition of environmental education. For this purpose, a series of experimental guides and modules has been prepared on both the content and the methodology of environmental education. More than fifteen titles are currently available (UNESCO, PROAP, 2000).

Again, UNESCO has contributed to the inclusion of the environmental dimension in educational practice level, supporting efforts made to strengthen at national level teacher training resources and the preparation of educational materials. More than forty national retraining seminars have been organized so far for teachers and administrators in the countries of the various regions and twenty-seven pilot and experimental projects have been implemented.

Before 1975, only a small number of countries were concerned with environmental education. Since then, 133 countries, in every region of the world, have participated in the activities undertaken by UNESCO (M'Bow, 1985).
4.5 (v) Exchange Opportunity

UNESCO has seen the benefits of exchange of men, material and the ideas across the man-made boundaries and has encouraged the free flow of information that comes in the wake of the movement of students and scholars to different regions of the world which alone can help build the web of world civilisation, whether such exchanges have been done educationally or culturally

- More than two decades ago, UNESCO had established the Asian programme for Educational Innovations and Development (APEID) under the auspices of Asian Centre for Educational Innovations and Development (ACEID) at Bangkok. This centre has served a useful purpose in promoting international cooperation in the field of education in the Asia-Pacific Region and its programmes need to be strengthened to foster international understanding through more and more of inter-country study visits.

It was felt that there was a need to organise more festivals in other parts of the world as also students exchanges visits on bilateral basis for promotion of friendly ties between the students. The bonds of friendship developed during young age are expected to be more durable.

4.5 (vi) Introduction of Teaching Modules

Policy guidelines, teacher education modules (including 30 “Self-Study Modules”), teaching-learning packages and other materials for use in both formal and non-formal contexts produced and diffused (print and CD-ROM versions); regional versions of the UNESCO map of the “Distribution of the World’s Population”, and accompanying educational materials published and distributed (UNESCO, 1995).

4.5 (vii) Modern Audio-Visual Technologies

Higher education institutions must adopt new approaches for the packaging of information, for course delivery, and for rethinking traditional approaches to teaching and learning. New and new gadgets have been made available to students, teachers and managers over the
time and UNESCO has encouraged the induction of such equipment as the magic lantern, glowing globes, films and cassettes and CD’s in the educational institutions. Of course, UNESCO has been aware of the fact that the financial constraints have handicapped the developing countries of Asia, Africa and Latin America, and has done its maximum to make available funds to these countries for this purpose, although the withdrawal of USA, UK and Singapore ensured that minimum funds were available to UNESCO itself. The utilization of multi-media, CD-ROM, the internet and interactive video must all be used to promote interaction between students and their lecturers. Agreements should be stimulated among regional institutions to exchange programmes and to share the results of their experimentation and innovation.

4.5 (viii) Pooled Experiences

UNESCO has facilitated the pooling of best experiences enhanced through the development of 20 national nodes within the International Registry of Innovative Practices in Education, Public Awareness and Training for Sustainability and through a wider distribution of the newsletter CONNECT.

4.5 (ix) Regional and International Co-operation

According to UNESCO, cooperation in higher education at the national, regional and international levels is of vital importance as today no single higher education institution by itself can realistically expect to attain the highest standard in every field of study and co-operation and collaboration can provide important stimulus to improvement and new insights for dealing with a range of different policy problems and pedagogical issues. Further more, the steady advances in information and communication technologies open new possibilities for new forms of collaboration (UNESCO, 1998).

Regional co-operation among the countries of the region, especially in higher education, can make significant contributions in addressing major policy problems, strengthening national capacity in economic and
social development, and facilitating the sharing of important expertise and experience. Regional co-operation is especially desirable in view of the diversity of the region and the potential for dynamic collaboration.

Recent developments in education and science have reinforced the argument that, since knowledge is universal, its pursuit, advancement and dissemination can be greatly enhanced by the collective efforts of the international academic community. Thus individual institutions can find considerable advantage in developing their own international linkages, such as for the exchange of staff and students and for academic collaboration, as well as supporting the activities of international organizations and bi-lateral agreements between countries within the region (UNESCO, 1995).

Over the decades significant collaboration within the region has been achieved and certainly such collaboration has been supported and encouraged at various meetings of Ministers and Officials. In particular, there has been strong support for the role of UNESCO and other international organizations and NGOs. In their various discussions, participants noted the conclusions of the Sixth Regional Conference of Ministers of Education and those Responsible for Economic Planning in Asia and the Pacific, organized by UNESCO in co-operation with ESCAP, which called for support for regional and national programmes "to encourage mobility, networking and quality monitoring in higher education"; Resolution No. 1.6 adopted by the twenty-eighth session of the General Conference of UNESCO in November 1995, which called for the strengthening of regional cooperation in higher education in Asia and the Pacific notably by taking appropriate measures to establish a Regional Programme in Higher Education in UNESCO’s Bangkok Office and which invited the Director-General to ensure that development of the programme be discussed in a regional conference on higher education for the preparation of a world conference on higher education planned for 1998 (UNESCO, 1998).
The World Conference of Higher Education and Human Development in Asia-Pacific for 21st Century (1997) noted various initiatives taken over the past decade by several governmental and non-governmental organizations and higher education institutions include debates in the framework of APEC for the formulation of a regional programme in higher education for human resource development; restoration of the activities of the SEAMEO Regional Institute for Higher Education and Development (RIHED); the recent formation of the Association of Universities of Asia and Pacific (AUAP); establishment of the University Mobility in Asia and the Pacific Programme (UMAP) which aims at promoting student mobility at undergraduate level; the formation of the UNESCO-supported Asia Pacific Higher Education Network (APHEN) to foster research collaboration; progress with the UNESCO Chairs, UNITWIN and UNISPAR Programmes; the conclusions of various conferences on higher education issues and reforms hosted by different countries of the region.

Participants were of the view that international and regional organizations should support projects aiming at establishing or strengthening university networks.

The conference noted that for many years UNESCO's higher education programme has made an important contribution to policy development and co-operation within the region, especially in such areas as distance education and management (UNESCO, 1998).

Within the framework of the Regional Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific and the International Recommendation on Recognition of Studies and Qualifications in Higher Education, there is an urgent need to encourage student, academic and professional mobility in order to enhance economic, educational, political and cultural integration within the region, and to develop mutually accepted standards for the recognition of credentials.
Within their capacity, UNESCO and other international and interregional governmental and non-governmental organisations are supposed to respond to requests to provide technical assistance to smaller and poorer countries in the region.

Co-operation between developed and developing countries are supposed to have a two-way operation, both sending students to study relevant subjects, for developed countries students knowledge of the foreign countries culture and civilization may be important subjects to study; co-operation should not promote dependency (UNESCO, 2000).

Higher education institutions have to strengthen their endogenous and co-operative capacities related to priority issues in the region.

4.5. (x) UNITWIN/UNESCO Chair Programme

Under the UNITWIN/UNESCO Chairs Programme 133 UNESCO Chairs and 29 inter-university networks have been established. An increased involvement of all sectors and Regional Offices has been achieved and UNITWIN focal points have been established within the Programme Sectors concerned. The co-operation with the United Nations University (UNU) in formulating and launching new joint projects were reinforced during 1994-1995.

Within the framework of co-operation with NGOs active in the field of higher education, a seminar on Women and University Curriculum was held in relation to the World Conference to Women. Some 11 debates with student NGOs were held to mark UNESCO’s fiftieth anniversary. The Higher Education Management Training and Development Programme was implemented with three NGOs (the Association of African Universities (AAU), the Inter-American Organization for Higher Education (OUI), the Association of Commonwealth Universities/Commonwealth Higher Education Management Service (ACU/CHEMS). Two books titled Higher Education and Staff Development and Women and the University Curriculum were published.
A policy paper on Change and Development in Higher Education, published in six official languages of UNESCO, in addition to Portuguese and Japanese, was presented to meetings of NGOs, IGOs, youth organizations.

Regular sessions were held of all the six committees established for the application of the Regional Conventions on the Recognition of Studies, Diplomas and Degrees in Higher Education, and the total number of Member States ratification reached 112. Several guides were produced as well as a World Directory of National Information Centres for Academic Recognition and Mobility. The multilingual 29th edition of Study Abroad was published. The first Draft Recommendation concerning the Status of Higher Education Teaching Personnel was elaborated.

The report of the Joint ILO/UNESCO Committee of Experts on the Application of the Recommendation concerning the Status of Teachers was endorsed by the governing bodies of the two Organizations and widely disseminated to governments, international and regional teachers organizations. Seventeen national case-studies providing base line data on the application of provisions of the Recommendation relating to the initial and continuing education and training of teachers were published and widely disseminated. The 'International Teachers' Day was launched by the Director-General on 5 October 1994, date of the adoption of the ILO/UNESCO Recommendation. One hundred Member States supported this action and subsequently organized numerous seminars, debates and media programmes on the theme of teachers (Report of Director-General, 1994-95).

4.6 CHALLENGES TO HIGHER EDUCATION IN THE 21ST CENTURY

As the world has entered the new century the role of higher education has seen a sea-change and things are not what they used to be in the last century. The changing socio-economic and the political
environment has to be matched by the kind of higher education conducive to the changing times. Higher education has also to tap the new technologies like computer, Internet and virtual library. Further higher education being at the apex of education in any country has a unique and the most important role to play in igniting the education process in a country. A qualitative higher education would, thus, set off a chain reaction that will improve the education system of a country in general. No wonder then that UNESCO has, of late, encouraged the teaching and research in higher education. These efforts are already showing results and even the developing countries look optimistic these days. The individual countries have themselves been taking lot of interest in higher education and UNESCO's efforts have inspired them all the more. UNESCO has tried to improve higher education giving maximum stress on quality. This has, in turn, led to an improvement in the education systems in general.

(i)(a) Role of Higher Education in Society

Higher education is essential for any country to reach the necessary level of economic and social development and social mobility in order to achieve increased living standards and internal and international harmony and peace (UNESCO, 1998).

Societies quite rightly expect higher education to provide training for professionals and make a major contribution to the development of the whole education system, and to community service more widely conceived, notably through improved teacher education and educational research, and through activities to eliminate poverty, hunger and disease. Relevance requires better articulation with the world of work and democratization of access to higher education, wider opportunities for participation during the various stages of life as well as the full involvement of the higher education community in the search for solutions to pressing human problems, such as population control, environmental degradation, and the quest for peace, international understanding, democracy and human rights. Academic freedom and
responsible institutional autonomy particularly in core academic functions are crucial for the achievement of the goal of relevance.

Higher education, of course, also contributes in other important ways to societies and their development through research, scholarship, cultural transmission, the development of values and service roles. The research and scholarships roles are most important and many argue that the central tasks of the university are the generation and dissemination of knowledge with teaching and publication being the two main forms of dissemination. Scholarship and research have both scientific and humane elements; they are concerned with discovery, invention, criticism, testing and replication, but also the modern university celebrates creativity and humanness in literature, music and philosophy. Many political and community leaders also look to higher education to help create societies which will work together in harmony and promote such values as peace, equity, democracy and justice. In a rapidly changing world, a major challenge for any higher education institution is to help preserve the best traditional features of higher education and its service to society, but at the same time make courses and activities more responsive and more relevant to current and emerging needs.

(b) Higher Education and the World of Work

A major challenge for higher education institutions has been to establish effective links with employers, the professions and the world of work. Across the countries of the region, there is strong support for higher education institutions to forge new links with business and industry, particularly in offering joint supported courses and undertaking collaborative research, and already some important achievements have been reported. Such co-operation is bringing positive outcomes including greater collaboration with employers in curriculum design and review, and stronger demand for graduates from particular programmes.

The UNESCO 1995 policy paper on higher education pointed to two parallel trends which play a major role in determining relationships between higher education and the world of work:

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Firstly, higher education is moving towards a mass enrolment system as most economies become increasingly knowledge intensive and therefore depend more on graduates of higher education, who constitute a 'think workforce'. Secondly, graduates will have to accept the need to keep changing jobs, updating their knowledge and learning new skills. The world of work is being radically redefined and a large part of the specific knowledge that students acquire during their initial training will rapidly become obsolete. Continuous and interactive partnerships with the productive sector are essential and must be integrated into the overall mission and activities of higher education institutions (UNESCO 1995).

Many experts in the region consider that higher education institutions should promote continuous and interactive partnerships with the productive sector using both reactive and proactive approaches. They must adjust the curriculum to meet the needs of the workplace and ensure that new disciplines and specializations are incorporated into its content. They must help shape the labour market on one hand by identifying, independently of conjunctural interests or enterprises, new local and regional needs, and on the other hand by identifying, independently of conjunctural interests or enterprises, new local and regional needs, and on the other hand by designing mechanisms for retraining and career-switching. Curricula have to be organized to stimulate the entrepreneurial skills of students. This requires flexible, innovative and interdisciplinary approaches.

UNESCO has desired that special attention be given to career prospects and job conditions of students in course areas of high skills such as engineering and technology for long-term development (UNESCO, 1998).

One suggestion to come forward has been that based on experience gained within and outside the region, governments, the productive sector and local communities should encourage higher education institutions to foster incubator projects which help create new enterprises.
Governments, in particular, might provide incentives for the creation of micro-enterprises and fostering of university-industry links. Greater emphasis could be given to the regionalization of specific disciplines, through programmes which target specific needs that will generate employment. In addition, more industry-based projects and new paradigms of university-industry partnership must be instituted, specially in developing countries.

In many countries within the region, how well higher education meets the needs of employers is often a matter of debate. Frequently employers voice concerns about academic standards and complain that particular courses do not meet specific employment needs. Others complain about graduate unemployment. On the other hand, evidence demonstrates that in industrialized economies which are growing at a significant rate, higher education institutions play a key role in economic development (UNESCO, 1998).

4.6 (ii) Reflection on Academic Freedom

Academic freedom means that a scholar should have freedom to choose the research problem, there should be no extra – academic reason while reflecting academicians should not be discouraged from writing or expressing his or her opinion. If noble ideas are superseded, human civilisation and culture cannot develop. The best example of the effort to exercise academic freedom is Socrates (UNESCO, 1993).

Obviously, then, UNESCO has laid lot of emphasis on academic freedom. The Unescans like Julian Huxley, Rene Maheu, S. Radhakrishnan, Malcolm Adiseshiah have all been able to exercise academic freedom. People like Dr. Meredith and Ayn Rand have gone to the extent of challenging the very institution of state and no harm has ever come in their way. Academicians of wisdom have, therefore, been encouraged to speak their mind boldly which alone has shown the path to the new generation.
4.6. (iii) Improving University Level Teaching

Quality refers to standards of resourcing and provision, and the achievements or outputs of an institution or system. Quality is a multi-dimensional concept and it is not possible to arrive at one set of quality standards applicable to all countries and against which institutions can be assessed. Quality embraces all the main functions and activities of higher education: teaching and academic programmes, research and scholarship, staffing, students, infrastructure and the academic environment (Akhtar, 1998).

(a) The New Emphasis on Quality

Today higher education institutions are much more concerned with quality than they were in the past. The reason is that students, employers and the wider community quite rightly question the quality of courses and the quality of graduates. They want assurance that they are getting value and that university and college programmes live up to expectations (UNESCO, 1998).

Considerable attention over the years has been given by higher education institutions in the Asian-Pacific region both to quality and to management mechanisms put in place to assure quality. For example, many institutions have used a British-style system of external examiners, while in the Philippines, Korea and Taiwan there has been considerable dependence on American-style course and institutional accreditation.

But over the past decade, new concerns about quality have resulted in a number of new mechanisms being established at both institutional and system levels. The new concern about quality has arisen partly from concern about whether quality has suffered as a result of rapid expansion in enrolments and budgetary constraints, partly from new accountability pressure, partly from pressures from employers as higher education moves from an elite to a mass orientation and, in some cases, partly in response to increased difficulty for graduates in securing employment. But in addition, the new concern about quality and quality assurance is
being driven by international economic competitiveness, by concern that increased emphasis on entrepreneurial activities by universities may lead to academic standards being compromised, by concern about the need to ensure achievement of minimum standards in private higher education institutions, and by increased mobility of professional and skilled labour.

In many countries within the region over the past decade concern about quality and quality assurance mechanisms has been a major item on the policy debate. This concern seems likely to continue into the future, given the implications of quality in the reform and renewal of higher education. At the same time, it needs to be pointed out that in some of the poorest countries of the region the concern about quality is focused much more on the need to achieve a reasonable basic standard on resourcing, rather than on quality assurance.

(b) Quality Assurance

The term quality assurance has come to mean the mechanisms and processes used to achieve maintenance and improvement of outcomes and to ensure that stakeholders have confidence in management practices and outcomes. The term is also used to mean a guarantee or some form of certification that particular standards are being met.

Quality assurance "mechanisms" include academic accreditation, academic audits and institutional evaluations, performance funding, reviews of disciplines and professional areas, and new qualifications frameworks and competency-based approaches to vocational education and training. Many of new initiatives with quality assurance have produced positive benefits such as improvements in academic programmes, closer links with employees and professions and increased portability of professional qualifications.

In a number of cases attempts have been made to link quality assurance with some kind of performance funding. In some cases this has taken the place of the establishment of centres of excellence while in other cases funding for teaching and/or research has been based on the
level of past performance. While such strategies provide clear incentives for improvement, they can be very damaging to weaker institutions, especially if there are no separate incentives for improvement as well as excellence.

UNESCO emphasis that each country of the region should establish mechanisms for evaluating the quality of its higher education institutions and courses. Such mechanisms are essential at both institutional and system levels and should include academic accreditation, academic audits and institutional evaluations, performance fundings, review of disciplines and professional areas, qualifications frameworks, and competency-based approaches to vocational education and training (UNESCO, 1998).

(c) Quality of Academic Programmes

There has been a desire among Unescans to put greater emphasis on renewal of the curriculum, new approaches to both classroom and distance education teaching, and the expansion of inter-disciplinary and multidisciplinary studies, and vocational education programmes as alternatives to traditional university courses. Innovative approaches to higher education, such as community colleges, international collaboration, and twinning arrangements, have been viewed as needing encouragement. Pedagogical programmes should be established to encourage students to be more entrepreneurial and initiative-oriented. Higher education institutions need to modernize libraries and scientific equipment and in their long-term management plans develop strategies and detailed plans for the purchase and replacement of scientific equipment (UNESCO, 1998).

(d) Quality of Staff and Students

To maintain and enhance the quality of their staff, universities and colleges need to have well developed strategies for recruitment, staff development and recognition of the achievements of staff. Teachers, professors and technical & administrative staff must be given training that enables them to integrate new information and technologies into
their teaching programmes, and examine the multiplier effect with regard to their use. Frequently, the staff development needs of technical and administrative staff are not properly appreciated.

Governments can exercise a particularly important tool in assisting higher education institutions with the development of appropriate strategies for staff recruitment, professional development and recognition of achievements. Useful guidance was provided in the Draft Recommendation concerning the Status and Conditions of Higher Education Teaching Personnel, approved recently by a governmental experts meeting for submission to the General Conference of UNESCO in November 1997.

Higher education institutions also need mechanisms for the review and appraisal of the work of academic staff. Such mechanisms should include student and peer appraisal of teaching. Now in a number of countries many universities and colleges have special staff development or academic development units to assist with the development of academic staff and especially in the development and enhancement of skills in teaching.

Traditionally, the academic profession has been largely male-dominated, especially outside of fields of study such as teacher education and nurse education. However, in recent years, often as a result of deliberate institutional policies, the proportion of women has increased although in most countries female academics constitute no more than 20 to 30 percent of the academic workforce. Many experts agree that more emphasis needs to be given to encouraging women to undertake higher degrees and enter academic employment. Similar efforts are also needed to encourage members of ethnic minorities (UNESCO, 1998).

One of the major issues concerning academic employment relates to tenure and flexibility in staffing arrangements. Traditionally, in most countries in the region a high proportion of academics have held tenure or permanent appointments and this arrangement has often been defended as necessary in order to protect academic freedom and recruit the best
qualified staff. Today, however, there is increasing recognition of the need for much greater flexibility in terms of academic programmes and meeting the needs of employees, and this often runs counter to having a high proportion of tenured academics. Demand for courses in different disciplines also change over time. All this in turn leads to questioning of many traditional tenets concerning academic employment (such as the link between tenure and academic freedom) and to exploring options to provide institutions with greater flexibility. Business leaders, in particular, question why academics should enjoy far greater job security than professionals working in industry while private higher education institutions generally are adopting more flexible staffing arrangements (UNESCO, 1999).

The movement to mass higher education usually means that higher education institutions must deal with a much great diversity of students. This sometimes leads to complaints about the lack of student quality and preparation. However, many institutions themselves today must do much more to provide orientation and counseling, remedial courses, study skills training, and other forms of student support. Attention needs to be given to student living conditions as inappropriate housing can have an adverse effect on learning. It has been recommended that each higher education institution should establish a teacher and learning resource unit staffed by qualified personnel and charged with the development of pedagogical skills, academic skilled development among students and other forms of teaching-support activities.

(e) Quality of Facilities

In a time of rapid expansion in student enrolments and severe budgetary constraints, the provision, maintenance and enhancement of physical facilities and infrastructure are often given a relatively low priority. This is unfortunate, especially as such a trend can lead in the longer term to a major barrier to achieving quality higher education. The 1995 UNESCO policy paper on higher education sensibly comments that:
Capital investment aimed at modernization and improving the infrastructure of higher education should be seen by both public and private local, regional and national organizations as 'public works' forming an integral and important part of overall efforts towards modernization of the economy related infrastructure. No less important in this respect is the fact that some facilities of higher education are often used for civic, cultural and sporting events by both the academic community and the general public (UNESCO, 1995).

Two particular needs at institutional level relate to libraries and scientific equipment. The term libraries should be thought of not only to include traditional print material but also access to information through new communications technology. For the future, many scholars see libraries increasingly becoming combined with information technology resource centres which will be central to teaching, learning and research enterprises. For libraries, information technology resource centres and the purchase and replacement of scientific equipment, institutions need to develop their own long-term management plans (UNESCO, 1998).

4.6 (iv) Management and Financing of Higher Education

Management and financing covers both internal institutional management, funding and resource issues, as well as relations of higher education institutions with the state and national planning and coordination. UNESCO has always stressed that higher education institutions need to adopt forward-looking management practices which respond to the needs of their environments and which are articulated in their missions. Today, despite the general trend towards diversified sources of funding, public support for higher education and research remains essential to ensure achievement of educational and social missions. Both institutions and national agencies can develop appropriate strategies to strengthen management, planning and policy analysis capacities (UNESCO, 1999).
(a) Relations with the State

Governments have a particularly important role to play in higher education in all countries of the region, irrespective of whether the higher education system is an entirely public system, or whether a high proportion of students are enrolled in private institutions. Governments should set the overall policy in which higher education institutions operate. They should pay particular attention to mechanisms to achieve quality outcomes and to ensure that higher education courses are relevant to societal needs broadly defined. They have a responsibility to ensure that higher education is adequately resourced although funding may come from both public funds, students and their families are the private sector. Governments also have a responsibility in addressing questions of access and participation and particularly issues related to minority and disadvantaged groups.

There are however, sharp differences of views about the role of the state in the financing of higher education. Some argue that the concept of higher education as a public asset implies public funding and that such funding remains essential to ensure its educational, social and institutional missions are achieved. Therefore, it is argued that the state should take the view, however, that since the challenges for higher education concern society as a whole, the solution to this problem must involve not only the state but all stakeholders – students, parents, the public and private sectors, local and national communications authorities, and academic associations, as well as regional and international organizations.

In countries where privatization is accepted, governments have to provide a legal framework to regulate private higher education institutions, to develop appropriate accreditation and monitoring mechanisms, and to ensure an appropriate degree of academic freedom and institutional autonomy. It is important that the complementary and supportive role of private universities and colleges should be recognized.
Relations between governments and higher education institutions have changed to a marked degree in many of the countries of the Asia and Pacific region over the past two or three decades. Generally, as higher education systems have grown in size, so relationships have had to become much more formal and governments have found the need to establish new agencies or ministries to provide a buffer between higher education institutions and ministries and also to provide high level advice on resource needs, resource allocation and regulatory frameworks, and to administer programmes of grants and financial assistance. Further, the development of private higher education institutions has required the development of new regulatory and supervisory frameworks, as have the new developments already discussed with respect to quality assurance (UNESCO, 1998).

The actual administrative and coordinating arrangements in use vary between countries. Some have adopted university grants commissions on a British UGC model, whereas others have opted for ministries of higher education or university affairs, or education boards or education commissions.

While it is generally agreed that good relations between government and higher education institutions are essential in order for higher education institutions to achieve their mission and serve national and community interests, there are differences between countries as to precisely what forms these relationships take, especially with regard to the amount of autonomy or administrative independence that higher education institutions enjoy. The broad direction, however, within the region seems to be for an increased awareness by governments of the desirability of providing higher education institutions, particularly universities, with a substantial degree of autonomy (UNESCO, 1998).

UNESCO has also desired that responsible autonomy be stimulated in the region. This principle upholds the freedom of higher education institutions to select their staff and students, to determine the conditions under which they remain in the institution, and to select research topics.
for investigation. Freedom to determine the curriculum and degree standards and to allocate funds (within the amounts available) across different categories of expenditure are other aspects to be respected. At the same time, institutional autonomy should be accompanied by a high level of responsibility and accountability.

On the issue of administrative independence, it has been reported that a number of countries in the region (e.g. Korea, Iran, Thailand, Malaysia among others) had changed their steering policies to allow a flexible mixture of self-regulation with accountability and state control. Under this approach the state sets the broad policy parameters and supervises the higher education in terms of assuring academic quality and maintaining an appropriate level of accountability. It does not intrude into the higher education system by means of detailed regulation and strict control, but rather it respects the autonomy of the higher education institutions and stimulates the self-regulating capacities of institutions. With this approach there is usually increased use of performance indicators to monitor achievements and the use of resources.

Many higher education systems of the region for a considerable period have used a combination of bureaucratic regulation and market forces as key tools of governance. There are, however, clear signs of major change in direction, with a much greater emphasis being given to the use of competition and market mechanisms particularly so in Australia and New Zealand.

(b) Funding, Cost Sharing and Fee Structure

As already noted, a general problem across the region is the inability of public funding to meet the needs of higher education institutions in a time of rapid expansion in student enrolments. Consequently institutions need to generate an increasing proportion of their own income. This problem has been recognized within the region for a number of years and in many cases substantial progress has been made by both institutions and systems, especially in generating additional income. The result is that in many cases with public sector
institutions there has been substantial increases in tuition fees and moves to encourage partnerships with business and industry. In many cases public universities are becoming increasingly like private institutions (UNESCO, 1998).

UNESCO has generally favoured greater diversification of income sources, within increased adoption of sponsorship by industries, expansion of consultancy services and commercial activities, increases in tuition fees and the adoption of cost recovery methods. With respect to tuition fees, special attention should be paid to the capacity of particular students and their families to pay fees. Disadvantaged groups, in particular should be awarded scholarships and financial incentives to continue their studies.

(c) Increasing Management Capacity

The modern higher education institution, whether it be a research university, a junior college or a technical institute, has become increasingly difficult to manage, largely because of internal complexity and outside constraints and pressures. Management capacity within an institution can be increased by a range of means, including the recruitment of new senior staff with specialized expertise skills, appropriate training and staff development programmes for all managers but especially those in the most senior positions, introduction of greater clarity in job specification and reporting lines, improved management procedures, and the introduction and enhancement of computerized management information systems. Lack of managerial training and capacity among the senior administrator leads to wastage of scarce resources, delays in policy implementation and managerial rigidity.

UNESCO emphasises that management of higher education institutions should be flexible and transparent. Performance indicators should be constructed whenever feasible to monitor the managerial effectiveness of the higher education system. Involvement in decision-making by all key stakeholders of higher education institutions is of utmost importance. Experience has demonstrated the value of such
participation in bringing to decision-making a variety of different perspectives (UNESCO, 1998).

Management capacities at system level also need to be strengthened by the recruitment of new senior staff with specialized expertise, the implementation of appropriate training and staff development programmes for all line managers (and especially for those in executive positions), the introduction of greater clarity in job descriptions and reporting channels, the adoption of improved management procedures, and the introduction and enhancement of computerized management systems.

4.6. (v) International Co-operation in the Global Village

UNESCO has noted the growing tendency, in the political and economic as well as in social and educational spheres, to resort to international action as a way of finding satisfactory solutions to problems that have a global dimension, if only because of the growing interdependence that has so often been emphasized (UNESCO, 1996, Learning : The Treasure Within).

One of the fields in which UNESCO strives most resolutely to develop its co-operation with the different countries is the key area of educational personnel training, which is not, of course, confined to teachers. It encourages such training throughout the world in particular by organizing courses, seminars and workshops for the different categories of personnel, and by awarding fellowships at the national, regional and international levels.

UNESCO is encouraging Member States to direct their efforts towards innovative approaches and projects with a knock-on or multiplier effect, but it is, of course, for the governments themselves to decide on the type of project to which resources will be allocated. (M’ Bow, 1985)

More than half the technical co-operation activities in education are devoted to three main areas, which are, in descending order: educational policy, planning and administration (27.9 per cent of projects); training of
educational personnel (14.1 per cent); scientific, technical and vocational education (13.5 per cent).

International co-operation, thanks to its capacity to stimulate the exchange of experience and new thinking, has over the past decades been accorded a key role in the mobilizing of resources, which UNESCO has helped significantly to promote and strengthen by constantly seeking to bring about a synthesis of the needs and aspirations of all its Member States. (UNESCO, 1995)

The difficulty of securing new resources for education, and indeed of maintaining resources at their current levels, has become a major consideration. This difficulty is augmented in very many developing countries by the crisis affecting international technical co-operation, which is reflected in particular in reduction in the flow of resources to these countries. Here too, international, regional and sub-regional co-operation has an important role to play in ensuring that optimum use is made of available resources.

4.7 WORLD DECLARATION ON HIGHER EDUCATION : PRIORITY ACTIONS

The benchmark for Member States to gauge their success in achieving higher education priority actions in their respective countries and regions is the World Declaration on higher education in which representatives of the Member States pledged to undertake actions in fifteen areas (UNESCO, 2000):

(i) Ensure that higher education is equally accessible to all regardless of race, gender, language, religion or economic or social distinctions, or physical disabilities.

(ii) Educate, train and undertake research to contribute to the sustainable development and improvement of society as a whole and ensure the development of highly-qualified graduates and responsible citizens, provide opportunities for higher learning and for learning throughout life.
(iii) Ensure that higher education institutions exercise ethics and scientific and intellectual rigor in their various activities, providing a focus for casting, warning and prevention. For this, personnel and students should enjoy full academic autonomy and freedom while being fully responsible and accountable to society.

(iv) Enhance higher education role of service to society, especially activities aimed at eliminating poverty, intolerance, violence, illiteracy, hunger, environmental degradation and disease, and to activities aiming at development of peace via an interdisciplinary and tran-disciplinary approach.

(v) Raise the contribution of higher education to the development of the whole education system, particularly reinforcing its links with secondary education and providing a seamless system starting with early childhood and continuing through life.

(vi) Ensure that all persons seeking higher education have an optimal range of choice to acquire knowledge over a lifetime, based on flexible entry and exit points within the system.

(vii) Maintain and enhance the quality of higher education, particularly the advancement of knowledge through research. Recast curricula to go beyond the simple cognitive mastery of disciplines and to include the acquisition of skills, competencies, creative and critical analysis, independent thinking and team-work in multicultural contexts.

(viii) Update and improve the skills of teachers in higher education, with stimulus for constant innovation in curriculum, teaching and learning methods as well as an appropriate professional and financial status, and for excellence in research and teaching.

(ix) Place students and their needs at the centre of national and institutional decision-maker's concerns and consider them as major partners and responsible stakeholders in the renewal of higher education.
(x) Ensure the participation of women in higher education, in particular at the decision-making level, and in all disciplines in which they are under-represented.

(xi) Extend and diversify delivery of new information and communication technologies. Equitable access to these should be assured through international co-operation and support to countries that lack capacities to acquire such tools. Adapting these technologies to national, regional and local needs, and securing technical, educational, management and institutional systems to sustain them should be a priority.

(xii) Maintain public support for higher education and research, to ensure a balance in the achievement of educational and social missions. Develop policy-making partnerships between institutions and responsible state authorities that ensure autonomy to institutions to manage internal affairs, but with clear and transparent accountability to society.

(xiii) Give priority to training programmes in the developing countries in centres of excellence forming regional and international networks with short periods of specialised and intensive study abroad, so as to stem the brain-drain that deprives such countries of the high level expertise necessary to accelerate their socio-economic progress.

(xiv) Ratify and implement regional and international normative instruments for the recognition of studies and diplomas, including certification of skills and competencies of graduates, in order to facilitate mobility within and between national education systems.

(xv) Ensure close partnerships amongst all stakeholders – national and institutional policy-makers, governments and parliaments, the media, teaching and related staff, researchers, students and their families, the world of work, community groups – is required in order to set in train a movement for the in-depth reform and renewal of higher education (UNESCO, 2000).