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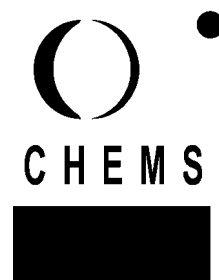
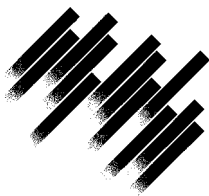
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*UNESCO Higher Education Indicators Study*

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**Accountability and International Co-operation  
in the Renewal of Higher Education**

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*UNESCO Higher Education Indicators Study*

**Accountability and International Co-operation  
in the Renewal of Higher Education**

A study prepared by

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of the Commonwealth Higher Education Management Service (CHEMS)

as part of the follow-up to the

World Conference on Higher Education  
(UNESCO, Paris, October 1998)

Paris, 2001

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## ***Preface***

An important mission of UNESCO is to ensure global debate in the specific areas of its mandate in collaboration with its Member States and other partners in the international community.

To this end, UNESCO convened a number of world conferences during the 1990s, *inter alia* on adult education, culture and development, higher education, science, and technical and vocational training. These studied the major issues faced by national and institutional policy-makers in the knowledge society of the third millennium.

The World Conference on Higher Education was convened in Paris (October 1998) on the theme of *Higher Education in the Twenty-first Century: Vision and Action*. The documents entitled *World Declaration on Higher Education for the Twenty-first Century* and the *Framework for Priority Action for Change and Development in Higher Education* were adopted by the 4,000 participants at the conference and contain the key principles for the orientation of this sector in the coming years.

Since 1998, UNESCO has ensured that these documents are widely disseminated so that they are familiar to all stakeholders and can be used with confidence. To this end, effective strategies are essential to facilitate their implementation.

The present study poses clear questions which illustrate how Member States and other partners can measure their progress in this regard. It lists existing performance indicators now in use and indicates where others need be further developed.

UNESCO thanks the Commonwealth Higher Education Management Service for its assistance in producing this useful and comprehensive study. Its support to the follow-up strategy to the WCHE is greatly appreciated.

Komlavi F. Seddoh,  
Director,  
Division of Higher Education

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# 1 Introduction to the guidelines

## 1.1 Aim

UNESCO has two reasons for launching this project into performance indicators. The first applies not only to higher education and derives from the principle that “sound policy-making requires good data”. The second relates to the World Conference on Higher Education (Higher Education in the Twenty-first Century: Vision and Action, Paris, 5-9th October 1998) which confirmed the need for the renewal and re-orientation of higher education at the system and institutional levels. UNESCO believes that as Member States will wish to assess their success in achieving the changes agreed at that Conference, they will need some tools to help them to do so. This document is a first step to providing those tools.

The two principal documents of the Conference – *World Declaration on Higher Education for the Twenty-first Century: Vision and Action (World Declaration)* and the *Framework for Priority Action for Change and Development of Higher Education (Priority Action Plan)* – set up the conceptual framework, the main directions of the reform and their governing principles. These were supported by a series of documents prepared at the regional level.

UNESCO’s aim in this current study is to give Member States and their respective institutions guidelines to self-monitoring their performance against the key principles of the *World Declaration* and the *Priority Action Plan*. The guidelines focus principally on currently available international statistical indicators. Where such indicators are not available, some examples and suggestions are given on how performance may be measured within an individual region or institution through ad hoc surveys or other analyses. The selected indicators:

- are based essentially on the Summary of the WCHE Declaration and on the *Priority Action Plan* at the national, systems, institutional and international level;
- place special emphasis on the principle of accountability in the renovation of higher education;
- are in current use (e.g. World Bank, Organisation for Economic Co-operation and Development (OECD), and United Nations Development Programme (UNDP), statistical reports published by UNESCO and other bodies); and
- pay due attention to the importance of international co-operation in higher education in meeting the needs of developing countries.

## 1.2 Study framework

This report begins with a short description of the context. We then describe how performance indicators have been selected to suit the international arena and to match the needs of Member States and the visions of the *World Declaration*. Guidelines are then given to users on how to apply such indicators to their own circumstances and how the different types of indicators have been defined; this is followed by a concise summary of the *World Declaration*.

The report then sets out some self-challenge questions which will help Member States to gauge their higher educational performance; after this, we list some examples and

suggestions of the surveys that Member States may wish to develop or use in order to obtain more specific or qualitative information.

The study concludes with a comprehensive Annex, which is the core of the study. This takes each goal and action from UNESCO's *Priority Action Plan* and then shows which currently available indicator or statistic can be used to help to measure performance against that goal. In each case a detailed reference is made to the source and page where the indicator can be found. A list of the relevant references and statistical source books completes the study.

### 1.3 Context

In the context of the prevailing trends to globalisation, international comparative statistical data and indicators are indispensable. This is why many international organisations and institutions have recently improved their mechanisms for collecting the relevant data. Thus, for example, the International Standard Classification of Education (ISCED), adopted by UNESCO in 1976, was recently replaced by a modified version - ISCED 1997 and the OECD invested much effort in developing new approaches to statistics and indicators in *Education at a Glance*.

UNESCO's efforts for the development and reform of higher education are supported by the regular publication of statistical documents reflecting the quantitative developments in higher education. The most recent one, "*World Statistical Outlook on Higher Education: 1980-1995*", served as one of the working documents of the World Conference on Higher Education. One option is for this style of publication to be continued and adapted in the light of the proposals in this study to provide a quantitative element to the follow-up for that Conference.

In order to reinforce policy and decision-making there is a need for a reliable system of factual reporting on the administration, operation and financing of higher education systems. Establishing quantitative data for Member States in these areas should lead to a better understanding of the trends in higher education and subsequent policy formulation, as well as an improvement in the way higher education is assessed at the system and institutional levels.

### 1.4 Link to the wider project

A wider project on indicators, for which this current study will serve as a testing and review paper, is foreseen for the years 2000-2002 and is to be co-ordinated by UNESCO-CEPES (European Centre for Higher Education), Bucharest, in collaboration with:

- The Ministry of Education, Science, Sports and Culture (Monbusho), Tokyo, Japan;
- Research Institute for Higher Education, Hiroshima University, Hiroshima, Japan;
- UNESCO Institute for Statistics, Paris, France;
- Centre for Higher Education Policy Studies (CHEPS), University of Twente, Twente, the Netherlands.

Discussions on this proposed wider study are currently being carried out with OECD, the World Bank and the United Nations University, as well as national bodies and selected group of experts (particularly the holders of UNESCO Chairs on higher education) in order to ensure their participation in this project. It is foreseen that the project will be:

- assessing the extent to which currently used indicators reflect recent changes and developments in higher education at the system and institutional level;

- formulating a set of strategic indicators which reflect the common vision of higher education presented in both the *World Declaration and Priority Action Plan*;
- promoting the use of the indicators as an instrument to facilitate reflection and better understanding of cutting-edge developments in areas relevant to reform of higher education; and
- advocating increased interaction between parties who undertake international comparative research on higher education and policy-making.

## 1.5 Selection of performance indicators

In order to assist Member States to obtain quantifiable and comparable measures on the successful attainment of actions in the *World Declaration*, it will be necessary to rely on the latest available indicators or statistics produced by agencies such as OECD, UNESCO, UNDP, ILO and The World Bank.

Whilst the goal must be to attain a common set of indicators to review higher education standards, needs and priorities in different regions, it is recognised that any list of recommended performance indicators is likely to be an ideal which few countries will be able to collect in full. There may be no relevant quantitative indicators in some cases, particularly where the action is non-prescriptive or qualitative in nature and those that exist may need to be prioritised. In addition statistical processes in some Member States may be at an early stage of development with little reliable data yet emerging. Where regular quantitative information does not exist, some examples and suggestions have been given of ad hoc surveys which Member States could use or develop to assess their performance in achieving the World Declaration's goals.

## 1.6 Matching performance indicators with the needs of Member States

Participants from the Member States at the World Conference on Higher Education in Paris in October 1998 agreed a *World Declaration on Higher Education* which stated inter-alia that:

*Education is a fundamental pillar of human rights, democracy, sustainable development and peace, and shall therefore become accessible to all throughout life and that measures are required to ensure co-ordination and co-operation across and between the various sectors, particularly between general, technical and professional secondary and post-secondary education as well as between universities, colleges and technical institutions.*

Member States have a common focus in striving for a high quality, relevant and responsive higher education in developed and developing regions throughout the world as signatories to the *World Declaration*.

However they will enact different roles in the upgrading and delivery of higher education services to meet the key elements of the *World Declaration* – such as at a programme/disciplinary level, institutional level or systems level. Member States will be mindful of the wider participants in such a venture, which include representatives from the higher education institutions, the central and regional governments, funding bodies, students, employers, and the public at large. Each of these wider participatory groups has different goals (see Table 1), and a different set of performance indicators is relevant for each group to match those goals.



Table 1 – The use of performance indicators	
Participants	Purpose
Higher education institutions	Internal management
	Comparison with other institutions
	Marketing, image building
	Evaluation of teaching and research activities of individuals and departments
Governments and their training and educational bureaucracies	Student entry and completion of courses
	Testing
	Budgeting
	Governance
	Policy and planning in higher education
	Allocation of resources
	Funding
	Value of investment in research
	Manpower planning
	Public
Access	
Students	Choice of Institution
	Flexibility in entry and education type (full time/part time)
Industry and technology	Research funding
	Joint ventures
	Graduate employment
Research councils	Selective distribution of research funds

Source: *The Real World of Performance Indicators – A Review of their Use in Selected Commonwealth Countries*, London, CHEMS, 1996.

## 1.7 Matching the visions of the World Declaration to performance indicators

In view of the diverging and converging needs of the various participants CHEMS, jointly with UNESCO, undertook a review of each of the *World Declaration* priority actions (as shown in Annex 1), with the aim of presenting to Member States performance indicators on:

- What UNESCO higher education priority action it sought to fulfil;
- What outcome (goal) the priority action for higher education was aiming to achieve;
- How this goal could be measured in a quantitative or qualitative way that was relevant, able to be updated, based on reliable figures, understandable and accessible;
- What objective the performance indicator achieved in respect of access to higher education, renovation of systems and institutions and strengthening the link with the workplace; and
- How the performance indicator could be obtained, with examples where relevant.

## 1.8 Guidelines on the use of performance indicators

The following guide has been designed to allow Member States to test the effectiveness of their higher educational policies at both the system wide and institutional level to ensure that they are appropriate and robust. Ministries may wish to encourage partnerships with the heads of their respective higher educational institutions to use the guide to undertake a self-assessment and to act on the outcomes.

Governance and management arrangements differ between institutions and countries depending on factors such as size, mission and culture. However, we believe the principles and the self-challenge questions set out in the guide can apply to all institutions and systems.

In essence, whilst individual circumstances certainly differ between countries, the desired outcome for Member States is a list of indicators that will enable them to assess the renewal of their higher education system in relation to each of the four major World Declaration objectives, which are as follows:

- Promotion of access to higher education based on merit and addressing the areas of equal opportunity; seamless and open access to higher education and assistance to minorities and the disadvantaged.
- Modernization of higher education systems with a focus on access rates and overall participation rates; funding for research and development and review of international trends including fees and mobility trends.
- Renovation of institutions and the areas of academic quality; policy input and preparation; curriculum relevance; research links and performance; staff assessment and international co-operation.
- Closer linkages with society, especially with the world of work; lifelong sources of professional training and the development of entrepreneurial skills – higher education to turn out job creators and social responsibility.

## 1.9 Definitions of performance indicators

Three kinds of indicators have been noted by Cave, Hanney, Henkel and Kogan (1997). Their distinction between “simple”, “performance” and “general” indicators has been adopted in this study to assist Member States in interpreting the meaning and application of the indicators as shown in the Annex. Definitions of the three kinds of indicator are:

Simple indicators are usually expressed in the form of absolute figures and are intended to provide a relatively unbiased description of a situation or process.

Performance indicators differ from simple indicators in that they imply a point of reference, for example, a standard, an objective, an assessment, or a comparator, and are therefore relative rather than absolute in character. Although a simple indicator is the more neutral of the two, it may become a performance indicator if a value judgement is involved.

The third category, general indicators, are in the main derived from outside the ‘institution and are not indicators in the strict sense – they are frequently opinions, survey findings or general statistics’.

There are numerous other definitions of performance indicators, but the most comprehensive is that in the recent British study on performance indicators in higher education (HEFCE, 1999) which states that they have five purposes; ‘to provide better and more reliable information on the performance of the sector; to allow comparison between individual institutions; to enable institutions to benchmark their own performance; to inform policy developments; and to contribute to the public accountability of higher education’.

## 2 Summary of the World Declaration on Higher Education

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*, in which representatives of the Member States pledged (in summary) to undertake actions in fifteen areas:

- (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 rigour in their various activities, providing a focus for forecasting, 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 transdisciplinary 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-makers 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.

### 3 Self-challenge questions to performance indicators

#### 3.1 Introduction

We have drafted the self-challenge questions set out below to assist Member States and the heads of their higher education institutions in gauging their performance against the vision and actions to which they were signatories in the *World Declaration*. Questions are grouped under the four main objectives in section 1.8 above and then shown in the appropriate one of the fifteen “national action” headings to which they relate.

Under each question we show in summary form the quantitative indicators that are recommended. For some questions there are several; for others very few. In many cases the indicators do not directly measure the issue canvassed, but are illustrative generally. In such situations we later suggest (in the Annex) some surveys which might help to inform the topic further. Fuller details of the priority actions at the national, systems and institutional and international level are shown in the Annex. The Annex also provides for each international indicator its source, table number and page number of the document it comes from.

#### 3.2 Promotion of access on merit

##### 3.2.1 Social: equal opportunity and access to higher education

**a) *How can we gain an indication of the equality of access to places of higher education regardless of race, gender, language, religion, age, economic and social distinctions and/or physical disabilities?***

- Change over time in number/gender of higher education students per 100,000 inhabitants.
- Net entry rates by mode of participation, age and gender.
- Access to lifelong learning by type of training and level of earnings.
- Perceived barriers to participation in continuing education and training.

**b) *How well are institutions establishing systems of access for the benefit of all individuals who have the necessary abilities and motivations to attend higher education?***

- Student enrolment in open-learning and distance-learning institutions.
- Student retention rates.
- Student progression rates
- Funding for adult education and training courses.
- Locations of adult education and training courses.
- Media for adult education and training courses.

**c) *How can we test the participation and decision-making roles of women at all higher education levels and in all disciplines?***

- Change over time in gender balance of staff and students.
- Presence of female administrators and managers.

**d) How well are higher education institutions' programmes removing gender inequalities in curricula and research, and achieving balanced representation among all levels of management?**

- Graduation age by gender and field of study.
- Number and percentage of female teachers by level of education.
- Index of change in gender gaps.

**e) What is the level of support given to students, to raise enrolment levels and to expand the level of access to minorities and the disadvantaged in higher education from the public and private sectors?**

- Reasons for failure or non-completion of courses.
- Scholarships grants to households and student loans.
- Public subsidies and financial aid to tertiary students.
- Staff /student ratios.
- Expenditure per student relative to gross domestic product (GDP).

### **3.2.2 Cultural: seamless and open access to higher education**

**a) What is the level of choice and flexibility of entry and exit points to institutions of higher education in your respective state/region/country?**

- Change over time in student enrolments in different fields of study.
- Net entry rates by gender and mode of participation.
- Age distribution of university level new entrants.

## **3.3 Modernization of systems**

### **3.3.1 Technological access**

**a) How well is the use of new technologies being generalized to the greatest extent possible to help higher education institutions?**

- Internet hosts per 10,000 people.
- Personal computers per 1,000 people.
- Mobile phones per 1,000 people.
- Adult Education and training courses using various media.

### **3.3.2 Government commitments to higher education**

**a) What human, material and financial commitments made to higher education in particular have been fulfilled by the state over the past decade?**

- Index of change between 1990 and 1995 in public and private expenditure on education.
- Nature of educational imbalances.
- Government commitments.

**b) Has higher education acted as a catalyst for the entire education system?**

- Public expenditure on education by level of education 1980-95.
- Enrolment by level of education 1980-95.
- Increased probability of obtaining a tertiary qualification for individuals whose parents have also completed tertiary education.

### 3.3.3 Mobility trends

#### a) *How nationally and internationally mobile are teaching staff and students?*

- Number of foreign students enrolled.
- Foreign students by country of origin in the fifty major host countries.
- Foreign students by host region and region of origin.

### 3.4 Institutional effectiveness

#### 3.4.1 Scientific and intellectual rigour and ethics in higher education

#### b) *How well do higher education institutions abide by the rules of ethics, and scientific and intellectual rigour, and the multidisciplinary and transdisciplinary approach?*

- Personnel in higher education engaged in research and development.
- Expenditure on research and development by sector of performance.
- Expenditure on research and development in higher education by source of funds.

#### 3.4.2 Curriculum and course relevance

#### a) *How well do higher education institutions establish and foster their mission and degree courses, which contribute towards regions reaching an environmentally sustainable level of economic and social development and cultural creativity?*

- Fields of study by graduates over time by region.
- Trends in human development and per capita income.
- Trends in human development and economic growth.
- Health profile.
- Educational imbalances.
- Resource use imbalances.
- Profile of environmental degradation.

#### b) *How well do higher education institutions contribute to the sustainable development of society through the analysis of emerging social, cultural, economic and political trends?*

- Personnel engaged in research and development (R&D) by sector of performance.
- Book production: number of titles/copies by UDC classes.
- Libraries by category: number, collections, additions, registered users.
- Newspapers and periodicals: number and circulation.

#### 3.4.3 Research links and performance

#### a) *How can we gauge the strength of the link between higher education institutions and research?*

- Proportionate expenditure on R&D in higher education.
- Personnel engaged in R&D by category of personnel.
- Expenditure on R&D by sector of performance.
- Scientists and engineers engaged in R&D, by sector of performance.

**b) How well do governments and industry support closer links between higher education and the world of work to facilitate employability of graduates who will increasingly be required not only to be job seekers but also to become job-creators?**

- Expenditure on R&D by source of funds.
- Source of funding of adult education and training courses.
- Graduate employment.

#### **3.4.4 Staff development and participation**

**a) How well do university faculty members participate in teaching, research, tutoring students and steering institutional affairs?**

- Number of teachers by type of institution.
- Personnel engaged in R&D by higher education sector performance and by category of personnel.

**a) How well are higher education institutions establishing programmes and structures to facilitate academic staff updating and improving their teaching skills and learning methods?**

- Current public expenditure on education by purpose and by level of education.

#### **3.4.5 International co-operation activities**

**a) How well are higher education institutions setting up partnerships and systems as a means of bridging the gap between rich and poor countries in the vital areas of knowledge production and application?**

- Expenditure on educational development co-operation by bilateral and multilateral agencies.
- Net financial flows from development assistance committee members.
- Distribution of net aid by development assistance committee members.
- Net financial flows from multilateral institutions.

**b) How can we narrow the gap in industrially developed and developing countries, in particular the least developed countries, in the provision of higher education and research?**

- Average annual growth rates in enrolment by developed and developing countries.
- Expenditure on R&D by source of funds.
- Current public expenditure on education by purpose and by level of education.

### **3.5 Society and work**

#### **3.5.1 Lifelong source of professional training**

**a) Do we provide complementary training to enter the world of work from secondary education and facilitate a range of gateways for persons wishing to gain entry into higher education institutions?**

- Students enrolled in the different types of institutions.
- Participation in adult education and training.
- Net entry rates for tertiary level education by gender, mode and age.
- Graduate employment.



**3.5.2 Development of entrepreneurial skills**

- a) *How well do governments and industry support closer links between higher education and the world of work?*
- Expenditure on R&D by source of funds.
  - Adult education and training courses.

## 4 Examples of surveys and statistics

### 4.1 Introduction

The previous section has shown that there is very little relevant information available in some areas to help to measure performance in achieving some of the goals. This is one of the disappointing findings of this survey. Even where good data can be found, they are collected by only a few Member States (such as the OECD countries). This means that it will be necessary in many cases to carry out ad hoc surveys or studies in order to answer the self-challenge questions. In this section we provide some suggestions as to what these surveys or studies might be.

The examples are designed to cover a range of institutions, so that those shown will not be relevant to all circumstances. Given the variety of cultures and missions within the higher education sector, it may not be practical or sensible for every Member State to develop them all. Equally, other types of survey or statistic may be in operation, which adequately address the self-challenge questions.

The examples of surveys or studies are grouped in the order of the four main objectives (see section 1.8) and are set below the self-challenge question that they seek to answer.

### 4.2 Promotion of access on merit

#### 4.2.1 Social: equal opportunity

- a) ***How can we gain an indication of the equality of access to places of higher education regardless of race, gender, language, religion, age, economic and social distinctions and/or physical disabilities?***

Member States may use statistics collected by their respective national agencies on the applications to enter higher education from students from the full range of socio-economic backgrounds, physical abilities, ethnic grouping, language, age, religion, country of origin and gender. In their absence, Member States should seek to undertake these surveys in higher education institutions so that they can measure and then act if any barriers to access are identified.

- b) ***How well are institutions establishing systems of access for the benefit of all individuals who have the necessary abilities and motivations to attend higher education?***

The presence, promoted use and consistent application of access and equal opportunity policies at higher education institutions may give Member States an indication of the implementation of this action area.

- c) ***How can we test the participation and decision-making roles of women at all higher education levels and in all disciplines?***

Member States may seek to undertake spot surveys in their respective higher education institutions to measure the participation and decision making roles of women at all levels and in all disciplines of higher education. An example is the set of performance and diversity indicators applied in Australia (DEETYA, 1998) which includes 20 staff indicators with an emphasis on category and gender of staff. The indicators distinguish between:

- The proportion of women in full time, fractional full time, casual staff positions;
- The proportion of women in academic, teaching only, teaching and research, and research only positions; and
- The proportion of women in staff positions 'with tenure' and 'without tenure';
- There are also a number of indicators on gender of staff by seniority and age.

**d) *How well do higher education institutions give support to students?***

To measure how well higher education institutions give support to students a snapshot survey will be required to ascertain the degree of student satisfaction and the scope, funding and nature of student support services. A major Australian study (cited in CHEMS 1996) involved the development of a questionnaire consisting of thirty items - on student levels of satisfaction with the institution in which they were studying. These covered five broad characteristics of teaching quality; student motivation and general teaching performance; clarity of goals and standards; student workload; appropriateness of assessment; and emphasis on independent learning. Such questionnaires are now standard practice in many countries as part of institutional quality assurance processes.

**4.2.2 Cultural: seamless and open access to higher education**

**a) *What is the level of choice and flexibility of entry and exit points to institutions of higher education in your respective state/region/country?***

Member States may seek to undertake additional qualitative surveys to ascertain and evaluate the presence of bridging programmes and prior learning recognition for open access at their higher education institutions.

**b) *How well do students have access to an autonomous education that provides freedom of choice in curriculum, range of subject and supply of study?***

Member States can undertake a survey at a random selection of universities to address how well students are organising themselves autonomously, if at all. Indicators include the open, autonomous presence of a student union with freedom of choice in students' ability to join, participate in and promote its activities, as well as the right to participate in some of the management decisions of higher education institutions.

**c) *How well are higher education institutions open to adult learners?***

There are currently no known internationally comparable indicators from higher education institutions or Member States on the openness of higher education to adult learners measured by credit transfers or joint community partnerships. However, Member States can undertake spot surveys to measure the presence of such factors within and between institutions, sectors and states. Activities would include establishing joint higher education/community research and training partnerships and carrying out interdisciplinary research in specific aspects of adult education.

### 4.3 Modernization of systems

#### 4.3.1 Technological access

- a) ***How well is the use of new technologies being generalized to the greatest extent possible to assist teaching and research staff, student and general participants at higher education institutions?***

There are only limited internationally comparable indicators from the higher education institutions themselves in respect to the availability and use of new technologies. An annual Campus Computing Survey is undertaken privately in the United States but this has no international comparators. Many countries see electronic access and awareness as a key national development in competitive terms and they will therefore be sympathetic to undertaking surveys of the use of ICT themselves, but in view of the very fast moving developments this would need to be done annually.

#### 4.3.2 Government commitments to higher education

- a) ***What is the public expenditure of funds on research and development at higher education institutions?***

Member States may seek to conduct surveys into how well the education of students and the extension of knowledge through research can directly contribute to their country's wealth. An example was a survey in the United Kingdom (HEFCE, 1999) of research outputs. However, co-operation between higher education institutions and industry could be assessed by collecting the following indicators;

- Value of higher education institutions research projects commissioned by industry:
- Value of higher education institutions research projects undertaken in collaboration with industry:
- Value of higher education institutions consultancy projects commissioned by industry:
- Total turnover of wholly or partially-owned higher education companies commercially exploiting research results:
- Income from licenses/options (not software) for higher education institutions and their exploitation companies.

- b) ***Has higher education acted as a catalyst for the entire education system?***

Member States may seek to further test the impact of higher education through the remainder of their education systems, via seeking to measure rates of:

- Improved holistic child development and advancement;
- Heightened dissemination of knowledge on sustainable social, environmental and economic development practices within the education system; and
- Widening and deepening the level of knowledge and therefore the range of choices available to men and women to foster greater participation in decisions that affect their lives.

#### 4.3.3 Mobility trends

- a) ***How nationally and internationally mobile are higher education teaching staff and students?***

There are few statistics concerning staff mobility. Independent surveys would be required on national and international staff mobility, as this will differ significantly from country to country depending on who selects or appoints university staff. Where it is done within institutions, the policies on recruitment of foreigners can be surveyed; but where the recruitment is done by a Ministry, the information may be more readily to hand. In order to catch short-term secondments/sabbaticals or staff exchanges with overseas institutions, surveys within institutions will be needed.

**b) *How well are UNESCO, and other intergovernmental and non-governmental organizations active in higher education, promoting international academic mobility as a means of attaining and sharing knowledge?***

Member States may wish to undertake working projects to ascertain the support for the Joint Work Plan (1999-2005) of the six intergovernmental committees within their administrations and the establishment of an educational credit transfer scheme, with particular emphasis on South-South co-operation, the needs of the least developed countries and of the small states with few higher education institutions or none at all.

#### **4.4 Institutional effectiveness**

##### **4.4.1 Institutional quality, accountability and international standing**

**a) *What is the international standing of, and how accountable and transparent are the affairs of, the respective higher education institutions in each of the Member States?***

Information that Member States can use to gauge the international standing of their higher education institutions and to put in place accountability and transparency measures for their affairs includes:

- International publication of research papers and journal articles;
- Their ranking in unofficial “league tables”, particularly if these include peer assessments;
- International acceptance of degrees by peer institutions;
- International audits of institutions of higher education (eg: by OECD, European Universities Association, CHEMS);
- Professional accreditation of higher education institutions.
- Participation in the UNESCO/UNITWIN Chairs Programme in Higher Education Management and International Relations.

##### **4.4.2 Scientific and intellectual rigour and ethics in higher education**

**a) *How well do higher education institutions abide by the rules of ethics, and scientific and intellectual rigour, and the multidisciplinary and transdisciplinary approach?***

In order to measure how well higher education institutions abide by the rules of ethics, and scientific and intellectual rigour, and the multidisciplinary and transdisciplinary approach, a snapshot review can assess the:

- Process for professional accreditation of higher education institutions;
- Presence and adoption of a national code of ethics;
- Presence of partnership programmes across and between disciplines.

##### **4.4.3 Policy preparation**

**a) *Are there accountable policy frameworks in place at the state, regional and/or institutional level to ensure participation by key stakeholders in all aspects of higher education?***

Member States may undertake surveys of the effectiveness of policy frameworks at the institutional level of higher education through measuring:

- Presence and ease of enactment of strategic mechanisms, which allow all relevant stakeholders to share in the setting and renewal of course curriculum and pedagogy.

- The means by which all participants can have a proper say in institutional arrangements, policy-making and institutional governance – for example through a progression from invitation to draft policy papers (using intranet, for example) and comment on working papers; dissemination of best practice; attendance at steering committees; participation in the resource allocation and decision-making process, and transparency in access to key information.
- Presence and enactment of institutional schemes and incentives in place to encourage all relevant stakeholders including academics, administrators, funding bodies, research councils and students to participate actively in the above, and in student and staff guidance and counselling services as appropriate.
- Presence of a policy framework, which is funded and has clear and consistent applied terms of reference to facilitate active institutional participation.

#### **4.4.4 Curriculum and course relevance**

**a) *How well do the higher education institutions serve the community, through their approach to the analysis of challenges, problems and different subjects?***

In order to gauge how well higher education institutions are serving their respective countries and regions, Member States may seek to analyse the range of different subjects disseminated, taught and taken, and resources allocated towards these subjects, materials published and joint community projects undertaken. In addition the presence, adoption and practice of an interdisciplinary and transdisciplinary curriculum base can contribute to eliminating poverty, intolerance, violence, illiteracy, hunger and disease.

#### **4.4.5 Research links and performance**

**a) *How can we gauge the strength of the link between higher education institutions and research?***

Member States may undertake spot surveys in their own states/regions to measure the closeness of the link between higher education and research. These may include the following, as by way of example from CHEMS (1996) and adapted from Cave, Hanney, Henkel and Kogan (1997):

1. Numbers of research students.
2. Research funding:
  - Public sector research funding;
  - Industry and charity research funding;
  - Total research income per academic staff member;
  - Research expenditure per academic staff member; and
  - Ratios of research expenditure and income.
3. Publications:
  - Number of journal articles;
  - Number of books; and
  - Other publications/conference papers.
4. Research quality based on:
  - Citation of publications; or
  - Impact factors of place of publication.
5. Research income:
  - Patents and licences.
6. Peer review.

7. Reputational ranking in international reviews.
8. Share of national research undertaken in higher education sector

**b) *What is the level of collaboration between higher education institutions and different sectors of society to ensure that higher education and research contribute to local, regional and national development?***

In order to measure the success of schemes of collaboration between higher education and research programmes, this is likely to require a qualitative survey. Some questions which may be posed include:

- Are there countrywide strategic mechanisms and policies in place to allow academics and industrialists to share in the setting of broad national research priorities?
- Do research-users have a proper say in the selection of research proposals for funding? Are there government, or other, schemes and incentives in place to encourage industry and academics to co-operate in research?
- How do universities aim to get promising discoveries exploited? How is the country's bank of specialized knowledge made available to other organizations, which could benefit from it? How are the potential "users" of research findings told about them?

**c) *How well do the higher education institutions contribute to the sustainable development of society through the analysis of emerging social, cultural, economic and political trends?***

Member States may seek to take a selective assessment of the development of their education systems, as set out in the 1996 report to UNESCO of the International Commission on Education for the Twenty-first Century (Delors et al., 1996).

**d) *How well are higher education institutions promoting and developing research in all disciplines?***

In order to measure higher education institutions' promotion and development of research in all disciplines, a snapshot survey will be required of institutional research strategies and spending on their research support. Some of the key factors echo those in (a) above and include:

1. Number of research students.
2. Student completion rates:
  - Masters; and
  - PhDs.
3. Funding:
  - Total research sums spent as a proportion of total institutional budget;
  - Value of national competitive research grants;
  - Other public sector research grants;
  - Research funding from industry and charities;
  - Total research income per academic staff member; and
  - Total research expenditure per academic staff member.
4. Publications:
  - Weighted publications index;
  - Number of books; and
  - Number of journal articles.

#### 4.4.6 Staff development and participation

**a) *How well do university faculty members participate in teaching, research, tutoring students and steering institutional affairs?***

Member States may survey their respective higher education institutions to measure how well university faculty members are able to distribute their time to participate in teaching, research, tutoring students and steering institutional affairs. This may involve requiring institutions to develop strategies for managing their teaching/learning and research activities.

**b) *How well are higher education institutions establishing programmes and structures to facilitate academic staff updating and improving their teaching skills and learning methods?***

The percentage of institutional funds spent on staff development and training could be obtained from an ad hoc survey. Information would also be needed on the national funding and support (if any) for networks or collective development of academic subjects. More qualitative data in this area are shown in the UNESCO report on Higher Education Staff Development: Directions for the Twenty-first Century (1994).

**c) *How well are suitable and accountable policies being established for all higher education teaching staff, as set out in the Recommendation on the Status of Higher-Education Teaching Personnel approved by UNESCO?***

Member States may undertake spot surveys at the higher education institutions within their respective states/regions to determine whether the recommended policy frameworks are in place and being met at the state/institutional level concerning higher education teachers. Indicators include:

- Facilities and opportunities for teachers to update and improve their skills;
- What incentives there are to innovate in curriculum, teaching and learning methods;
- How appropriate is their professional and financial status; and
- What rewards there are for excellence in research and teaching.

Checks should be made against the *Recommendation on the Status of Higher-Education Teaching Personnel* approved by the General Conference of UNESCO in November 1997.

#### 4.4.7 International co-operation activities

**a) *How well are higher education institutions setting up partnerships and systems as a means of bridging the gap between rich and poor countries in the vital areas of knowledge production and application?***

Access to statistical data on partnerships between universities, such as from UNITWIN/UNESCO Chairs Programme, which relies on networks of national, regional and international higher education institutions and survey of international offices would be useful. The national development aid strategy will be relevant and the share of government funding given to support institutional partnerships, link schemes and exchanges will often be a limiting factor on the extent to which higher education institutions can invest in north-south and south-south partnerships.



**b) How well is UNESCO, together with all concerned parts of society, undertaking action to alleviate the negative effects of 'brain drain' and to shift to a dynamic process of 'brain gain'?**

Member States can contribute to this area by co-operatively providing programmes in developing countries for volunteers, such as newly retired or young academics. Statistics on the numbers of these volunteers should be recorded. UNESCO can encourage Member States to record details of the country of origin of academic staff, particularly identifying those who have stayed on after graduation as an international student.

**c) How well is UNESCO promoting better co-ordination among intergovernmental, supranational and non-governmental organizations, agencies and foundations that sponsor existing programmes and projects for international co-operation in higher education?**

The main indicator is the scale of active participation by all partners (i.e. Member States, intergovernmental organizations, non-governmental organizations, donors, professional and community bodies) in the various mechanisms established as part of the WCHE Follow-up Strategy to: continue mobilization for debate; orient renewal and collect and disseminate innovative good practice. These mechanisms include:

- The Higher Education Partners Forum and its working groups which, together, track support given and trends related to specific areas of the sector;
- The WCHE International and Four Regional Follow-up Committees (sixty members and resource personnel) whose mandate is to co-ordinate the monitoring process and to advise of its future orientation;
- The five Regional Committees (total sixty members) whose mandates are to focus on monitoring and orientation of higher education renewal in regard to the socio-economic and cultural priorities of each region;
- The NGO Collective Consultation on Higher Education which has 57 members with outreach to 4,000 institutions, 300 association/unions and 25,000,000 specialists worldwide; this body debates issues and undertakes specific renewal projects in the various areas of its competence, reflecting in each instance the standpoint of civil society; and
- The UNITWIN/UNESCO Chairs Programme, which promotes inter-university linkages on a North/South and East/West basis to ensure advanced exchange of knowledge, training and research in fields, related to sustainable human development. As part of the programmes, networks on specific areas have been established, e.g. Chairs in Human Rights;
- The Intersectoral Committee on Higher Education which, as an internal UNESCO mechanism, ensures optimal co-ordination amongst sectors and their common areas of responsibility in higher education.

**d) How well is UNESCO, jointly with the United Nations University and with National Commissions and various intergovernmental and non-governmental organizations, becoming a forum of reflection on higher education issues?**

The indicator is the active participation by all partners (i.e. Member States, inter-governmental organizations, non-governmental organizations, donors, professional and community bodies) in the various mechanisms established as part of the WCHE Follow-up Strategy to continue mobilisation for debate; orient renewal and collect and disseminate innovative good practice. These mechanisms include:

- UNU/UNESCO Forum – Global University International Network for Innovation (GUINI) will promote the exchange of innovative practice in all areas related to higher education management and reform;
- The Focal Points Global Network (380 individuals) is charged with regular reporting on higher education innovation and with promoting further initiatives for renewal in Member States, inter-governmental organizations, non-governmental organizations, and other relevant bodies;
- The UNESCO Research Forum launched in co-operation with the Swedish International Development Co-operation Agency, OECD, the International Association of Universities (IAU) and other inter-governmental organizations and non-governmental organizations;
- UNESCO Higher Education E-Forum operates as a permanent space for debate on the change process with regard to key issues and is hosted in co-operation with higher education stakeholders;
- The Compendium of Innovative Good Practice, a global catalogue of examples of successful renovation;
- Specific ad hoc Working Groups of the WCHE International Follow-up Committee (e.g.: the world of work, lifelong learning, the impact of NICTs) monitor these areas to track change and ensure its reflection in the policy debate; and
- In all these cases the proper indicator is the degree of active involvement by participants and a qualitative survey of the results and achievements that can be properly attributed to the various frameworks and mechanisms.

**e) *How well is UNESCO taking specific action to support institutions of higher education in the least developed parts of the world and in regions suffering the effects of conflict or natural disasters?***

The indicator is the effectiveness of measures taken by UNESCO to respond to the needs of LDCs and of countries affected by conflict or disaster including:

- Upstream analysis of the higher education sector;
- Fielding of expert missions to assist national authorities and an assessment of what they achieved;
- Utilization of the UNITWIN/UNESCO Chairs Programme to illustrate good practice in inter-university co-operation; and
- Support for academic solidarity networks set up to assist crisis situations, e.g.: CRE's Academic Task Force for the Balkan Region.

**f) *How well is UNESCO making renewed efforts towards creating or/and strengthening centres of excellence in developing countries?***

The indicator is the evidence of strong participation by higher education stakeholders in mechanisms and the elaboration of joint projects which are rigorously evaluated to ensure optimal effectiveness:-

- Partner/donor co-ordination;
- Inter-university networking;

- The Intersectoral Committee on Higher Education; and
- Support for partner action, e.g. non-governmental organizations projects.

## **4.5 Society and work**

### **4.5.1 Strength of link between higher education and the workplace**

**a) *How well are higher education institutions setting their relations with the world of work on a new humanitarian basis within a framework of responsible autonomy and academic freedom?***

In order to measure the success or otherwise of the development of innovative schemes of collaboration between higher education and the world of work on a humanitarian basis, Member States are likely to have to undertake a survey. Some indicators that may be posed in this respect include:

- The existence of an independent national forum at the highest level where academics and business people can mark out areas of common interest.
- Agreement to policy priorities and a joint views on university development between government, universities and employers (public and private).
- Higher education institutions' recognition of their responsibilities to the local, regional and national economies and to society in their mission statements or strategic plans.
- Employer attendance on higher education institutions governing bodies and active and constructive participation in higher education affairs.
- Proportion of income arising from training, consultancy and research services provided for employers.

**Annex. Goals, objectives and performance indicators assigned to the Framework for Priority Action for Change and Development in Higher Education**

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(a) Establish, where appropriate, the legislative, political and financial framework for the reform and further development of higher education, in keeping with the terms of the Universal Declaration of Human Rights, which establishes that <b>higher education shall be 'accessible to all on the basis of merit'. No discrimination can be accepted</b>, no one can be excluded from higher education or its study fields, degree levels and types of institutions on grounds of race, gender, language, religion, or age or because of any economic or social distinctions or physical disabilities</p>	<p>Equality of access to places of higher education regardless of race, gender, language, religion, and age, economic, social distinctions and/or physical disabilities</p>	<p>Promotion of access on merit (social – equal opportunity; economic assistance to minorities and the disadvantaged)</p>	<p><b>Currently available</b></p> <p>Performance Indicators showing the degree of access to higher education include identifying change over time in higher education participation rates overall and by gender, mode and age and isolating the perceived barriers to participation in higher education as follows:</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) 'Education at the Third Level: Number of students per 100 000 inhabitants and by gender 1980-96' (Table 3.9, pp. 3/222).</li> <li>2. OECD-EEAG (1998) Net entry rates for tertiary-level education by gender and mode of participation and age distribution of university-level new entrants 1996 (Table C3.1, pp. 183).</li> <li>3. OECD-EEAG (1998) Percentage of 25- to 64-year-olds participating in education and training and average number of hours of participation in previous year, by type of training and level of earnings (1994-1995) (Table C5.5, pp. 218).</li> <li>4. OECD-EAAG (1998) Perceived barriers to participation in continuing education and training among non-participants who wanted to take training 1994-1995 (Table C5.9, pp. 220).</li> </ol> <p><b>Recommended for collection</b></p> <p>Member States may use the statistics collected by their respective national agencies on the applications to enter higher education from students from the full range of socio-economic backgrounds: physical abilities: ethnic grouping: language: age: religion: country of origin and gender. In their absence, Member States should seek to undertake these surveys at the higher education institutions so that they can measure the problem and then act if any barriers to access are identified. World Bank (2000) gives an interesting insight into the problems facing women and disadvantaged groups that may be drawn upon in designing any such surveys.</p>

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(b) Reinforce the links between higher education and research</p>	<p>To gauge the strength of the link between higher education institutions and research</p>	<p>Modernization of systems (funding higher education research)</p>	<p><b>Currently available</b></p> <p>Performance indicators to show the linkages between higher education institutions and research include:</p> <ol style="list-style-type: none"> <li>1. UNESCO-WSOHE (1998) Expenditure on R&amp;D in higher education sector as percentage of total domestic expenditure on R&amp;D (Table 8.2, pp. 33).</li> <li>2. UNESCO-SYB (1998) Personnel engaged in R&amp;D by category of personnel (Table 5.3, pp. 5-12).</li> <li>3. UNESCO-SYB (1998) Expenditure on R&amp;D by sector of performance (Table 5.6, pp. 5-36).</li> <li>4. UNESCO-WSOHE (1998) Scientists and engineers engaged in R&amp;D, by sector of performance (Table 8.1, pp. 31).</li> </ol> <p><b>Recommended for collection</b></p> <p>Member States may seek to conduct additional spot surveys into how well the education of students and the extension of knowledge through research, can directly contribute to their country's wealth, as shown by way of example from (HEFCE, 1999) to survey co-operation between higher education institutions (HEI) and industry through the following indicators in their respective states/regions:</p> <ul style="list-style-type: none"> <li>• Value of HEI Research/Consultancy projects commissioned by and/or in collaboration with industry;</li> <li>• Total turnover of wholly or partially-owned higher education companies commercially exploiting research results;</li> <li>• Income from licenses/options (not software) for higher education institutions and their exploitation companies.</li> </ul>

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(c) Consider and use higher education as a catalyst for the entire education system</p>	<p>To gain an indication of higher education's role as a catalyst for the entire education system</p>	<p>Modernization of systems (higher education funding and overall participation rates)</p>	<p><b>Currently available</b></p> <p>A performance indication of the catalytic impact of higher education on the entire education system may be obtained through reviewing change over time to expenditure on higher education and the relationship this may have on the level of enrolments through the whole system. Indicator Number (4) attests the impact of tertiary education and the 'flow through effect' on different generations:</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Total public expenditure on education and as percentage of GNP and all public expenditure 1980-95 (Table 4.1, pp. 4-3).</li> <li>2. UNESCO-SYB (1998) Current public expenditure on education by level of education 1980-95 (Table 4.2, pp. 4-20).</li> <li>3. UNESCO-SYB (1998) Enrolment by level of education 1980-95 (Table 2.4, pp. 2-11).</li> <li>4. OECD-EAAG (1998) Increased probability of obtaining a tertiary qualification for individuals whose parents have also completed tertiary education compared to individuals whose parents have not completed secondary education. (Tables A2.1 and A2.2, pp. 48).</li> </ol> <p>General indicators to show what action plans governments from selected countries have committed themselves places this data in perspective.</p> <p>5. The World Bank (1999) World Development Indicators – Government Commitment (Table 3.14, pp.172) showing:</p> <ul style="list-style-type: none"> <li>• Environmental strategy or action plan.</li> <li>• Country environmental profile</li> <li>• Biodiversity assessment strategy or action plan.</li> <li>• Participation in treaties.</li> </ul>

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(d) Develop higher education institutions to include lifelong learning approaches, giving learners an optimal range of choice and flexibility of entry and exit points within the system, and redefine their role accordingly, which implies the development of open and continuous access to higher learning and need for bridging programmes and prior learning recognition</p>	<p>Ease of choice and flexibility of entry and exit points to institutions of higher education</p>	<p>Promotion of access on merit</p> <p>(Cultural: seamless and open access to higher education)</p>	<p><b>Currently available</b></p> <p>Performance Indicators can include student enrolment rates relating to the type and mode of tertiary institutions in each country and changes over time in these rates, through such statistics as:</p> <p>1. UNESCO-SYB (1998) Education at the Third Level: teachers and students by type of institution 1980-96 (Table 3.10, pp. 3-229).</p> <p>General Indicators include:</p> <p>2. OECD-EAAG (1998) Net entry rates for tertiary level education by gender and mode of participation and age distribution of university level new entrants (Table C3.1, pp. 183).</p> <p>3. OECD-EAAG (1998) Distribution of students by mode of enrolment and by type of institution 1996 (Table C3, 4 pp. 186).</p> <p><b>Recommended for collection</b></p> <p>Member States may seek to undertake additional qualitative spot surveys in their own states/regions to ascertain and evaluate the presence of bridging programs and prior learning recognition for open access at their higher education institutions.</p>

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(e) Make efforts, when necessary, to establish close links between higher education and research institutions, taking into account the fact that education and research are two closely related elements in the establishment of knowledge</p>	<p>Strengthen the link between higher education and research institutions</p>	<p>Institutional effectiveness (Research links and performance)</p>	<p><b>Currently available</b></p> <p>General Indicators on links between higher education and research include:</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Personnel engaged in R&amp;D by category of personnel (Table 5.2, pp. 5-7).</li> <li>2. UNESCO-SYB (1998) Expenditure on R&amp;D by 'sector of performance' (Table 5.6, pp. 5-36).</li> </ol> <p><b>Recommended for collection</b></p> <p>Member States may seek to undertake additional qualitative spot surveys in their own states/regions to gain an appreciation of the strength of the link between higher education and research institutions. These may include by way of example from CHEMS (1996) and adapted from Cave, Hanney, Henkel and Kogan (1997) reviewing the:</p> <ol style="list-style-type: none"> <li>1. Number of research staff and students in each higher education institute</li> <li>2. Research funding <ul style="list-style-type: none"> <li>• Public sector research funding</li> <li>• Industry research funding</li> <li>• Total research income per academic staff member</li> <li>• Research expenditure per academic staff member</li> <li>• Ratios of research expenditure and income</li> </ul> </li> <li>3. Research quality based on: <ul style="list-style-type: none"> <li>• Citation of publications or</li> <li>• Impact factors of place of publication</li> </ul> </li> <li>4. Research income <ul style="list-style-type: none"> <li>• Patents and Licences</li> </ul> </li> <li>5. Peer review process</li> <li>6. Reputational ranking</li> <li>7. Share of national research undertaken in higher education sector.</li> </ol>



National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(f) Develop innovative schemes of collaboration between institutions of higher education and different sectors of society to ensure that higher education and research programmes effectively contribute to local, regional and national development</p>	<p>To gain an indication of the level of collaboration between higher education institutions and different sectors of society to ensure that higher education and research contribute to local, regional and national development</p>	<p>Institutional effectiveness (Research links and performance)</p>	<p><b>Currently available</b></p> <p>General Indicators for collaboration in R&amp;D include origin of funds and staffing:</p> <p>1. UNESCO-SYB (1998)</p> <ul style="list-style-type: none"> <li>• Personnel engaged in R&amp;D by sector of performance and by category of personnel (Table 5.3, pp. 5-12).</li> <li>• Expenditure on R&amp;D by source of funds (Table 5.5, pp. 5-30).</li> </ul> <p><b>Recommended for collection</b></p> <p>In order to gauge the degree of collaboration between higher education institutions and different sectors of society to contribute towards local/regional/national development will require qualitative spot surveys. Some questions which may be posed include:</p> <p>1. Are there countrywide strategic mechanisms and policies in place to allow academics and industrialists to share in the setting of broad national research priorities?</p> <p>2. Do research-users have a proper say in the selection of research proposals for funding? Are there government, or other, schemes and incentives in place to encourage industry and academics to co-operate in research?</p> <p>3. How do universities aim to get promising discoveries exploited? How is the country's bank of specialised knowledge made available to other organizations, which could benefit from it?</p>

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(g) Fulfil their commitments to higher education and be accountable for the pledges adopted with their concurrence, at several forums, particularly over the past decade, with regard to human, material and financial resources, human development and education in general, and to higher education in particular</p>	<p>Fulfilment of human, material and financial commitments made to higher education in particular, by the state, over the past decade</p>	<p>Modernization of systems (human development and higher education funding)</p>	<p>Performance Indicators to ascertain to see whether financial / human commitments made to higher education have been fulfilled since 1990 can partly be shown through reviewing:</p> <ol style="list-style-type: none"> <li>1. OECD-EAAG (1998) Index of the change between 1990 and 1995 in public and private expenditure on education, by level of education (1990=100) (Chart B4.2, pp. 109).</li> <li>2. UNDP-Human Development Report (1999) Education Imbalances (Table 10, pp. 176).</li> <li>3. UNDP-Human Development Report (1999) Trends in human development and per capita income 1975-1997 (Table 6, pp. 151).</li> </ol>
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(h) Have a policy framework to ensure new partnerships and the involvement of all relevant stakeholders in all aspects of higher education particularly the evaluation process, including curriculum and pedagogical renewal, and guidance and counselling services; and, in the framework of existing institutional arrangements, policy-making and institutional governance</p>	<p>To determine whether accountable policy frameworks are in place at the institutional level to ensure participation by key stakeholders in all aspects of higher education</p>	<p>Institutional effectiveness (policy preparation)</p>	<p><b>Recommended for collection</b></p> <p>Member States may seek to undertake spot surveys of their respective higher education institutions to review the effectiveness of policy frameworks at the institutional level of higher education through measuring:</p> <ol style="list-style-type: none"> <li>1. Presence and ease of enactment of strategic mechanisms, which allow all relevant stakeholders to share in the setting and renewal of course curriculum and pedagogy.</li> <li>2. The means in which all participants can have a proper say in institutional arrangements, policy making and institutional governance. For example through a progression from invitation to draft and comment on working papers; dissemination of best practice; attendance on steering committees; to participation in the setting of resource allocation and transparent decision making process and access to key information.</li> <li>3. Presence and enactment of institutional policies to encourage all relevant stakeholders including academics, administrators, funding bodies, research councils and students to actively participate in the above and in student and staff guidance and counselling services as appropriate.</li> <li>4. Presence of a policy unit, which is funded and has, clear and consistent applied terms of reference, to facilitate active institutional participation.</li> </ol>

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(i) Define and implement policies to eliminate all gender stereotyping in higher education and consolidate women's participation at all levels and in all disciplines in which they are under-represented at present and, in particular, to enhance their active involvement in decision-making</p>	<p>To measure the participation and decision-making roles of women at all levels and in all disciplines in higher education</p>	<p>Promotion of access on merit (social – equal opportunity)</p>	<p><b>Currently available</b></p> <p>A performance indicator that Member States can access to ascertain any change in the gender and distribution of higher education teachers in their respective countries/regions between 1980 and 1996, may include:</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Education at the Third Level: teachers and students by type of institution and proportion of female teaching staff at each level and type of institution 1980-96 (Table 3.10, pp. 3/229 – 3/261).</li> <li>2. UNDP-Human Development Report (1999) Gender Gaps in Tertiary Education – Index of Change 1985-96 (Table 25, pp. 229).</li> </ol> <p>A more general indicator is the:</p> <ol style="list-style-type: none"> <li>3. UNDP-Human Development Report (1999) Gender Empowerment Measure (Table 3, pp. 142).</li> </ol> <p><b>Recommended for collection</b></p> <p>Member States may seek to undertake spot surveys of their respective higher education institutions to measure the participation and decision making roles of women at all levels and in all disciplines of higher education. An example is the performance and diversity indicators applied in Australia DEETYA (1998) which includes 20 staff indicators with an emphasis on category and gender of staff. The indicators distinguish between:</p> <ul style="list-style-type: none"> <li>• The proportion of women in full time, fractional full time, casual staff positions;</li> <li>• The proportion of women in academic, teaching only, teaching and research, and research only positions; and</li> <li>• The proportion of women 'with tenure' and 'without tenure'.</li> </ul> <p>There are also a number of indicators on gender of staff by seniority and age.</p>

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(j) Establish clear policies concerning higher education teachers, as set out in the Recommendation concerning the Status of Higher-Education Teaching Personnel (RSHETP) approved by the General Conference of UNESCO in November 1997</p>	<p>To establish suitable and accountable policies for all higher education teachers, as set out in the RSHETP approved by UNESCO</p>	<p>Institutional effectiveness (staff assessment)</p>	<p><b>Recommended for collection</b></p> <p>Member States may seek to undertake spot surveys at the higher education institutions within their respective states/regions to determine whether policy frameworks are in place and being met at the state/institutional level concerning higher education teachers. Indicators include the:</p> <ol style="list-style-type: none"> <li>1. Ability for teachers to update and improve their skills;</li> <li>2. Stimulus for constant innovation in curriculum, teaching and learning methods;</li> <li>3. Appropriate professional and financial status; and</li> <li>4. Excellence in research and teaching as set out in the Recommendation on the <i>Status of Higher-Education Teaching Personnel</i> approved by the General Conference of UNESCO in November 1997.</li> </ol>
<p>1(k) Recognize students as the centre of attention of higher education, and one of its stakeholders. They should be involved, in renewal of their level of education (including curriculum and pedagogical reform), and policy decision, in framework of existing institutional arrangements</p>	<p>To measure how well institutional policy frameworks are in place to enable students, as key stakeholders, involvement in the renewal of their level of higher education and policy decisions</p>	<p>Institutional effectiveness (quality: policy preparation)</p>	<p><b>Recommended for collection</b></p> <p>Member States can undertake a spot survey at a random selection of universities within their respective regions to determine whether structures and practices are in place to enable students, as key stakeholders, involvement in the renewal of their education. Some indicators that Member States can use to measure success in this area are highlighted by (Sizer 1992) namely:</p> <ol style="list-style-type: none"> <li>1. Active and meaningful student participation in the democratic preparation and implementation of higher education policy frameworks.</li> <li>2. Effective procedures for inclusion of student representatives in governance, the revision of existing programmes or new courses and curriculum and pedagogy.</li> <li>3. Transparent institutional systems of quality assurance in which student opinions play a role.</li> </ol> <p>Reference should also be made to point 1 (h).</p>

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(l) Recognize that students have the right to organise themselves autonomously</p>	<p>To <i>measure</i> how well students have right to organise themselves autonomously</p>	<p>Promotion of access on merit (cultural – seamless and open access to higher education)</p>	<p><b>Recommended for collection</b></p> <p>Member States can undertake a spot survey at a random selection of universities within their respective states/regions, to address how students are organising themselves.</p> <p>Indicators include the open, autonomous presence of a student union with freedom of choice in selecting to join, participate in and promote the activities of the students and participate at a key level in the management structure of higher education institutions.</p>
<p>1(m) Promote and facilitate national and international mobility of teaching staff and students as an essential part of the quality and relevance of higher education</p>	<p>To gain an indication of the national and international mobility of teaching staff and students</p>	<p>Modernization of systems (mobility trends)</p>	<p><b>Currently available</b></p> <p>Performance Indicators that are available to ascertain international student mobility are:</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Education at the Third Level: Number of foreign students enrolled (Table 3.13, pp. 3.312).</li> <li>2. UNESCO-SYB (1998) Education at the Third Level: Foreign Students by country of origin in the 50 major host countries (Table 3.14, pp. 3.406)</li> <li>3. UNESCO-WER (1998) Foreign students by host region and region of origin (Table 11, pp. 110).</li> </ol> <p><b>Recommended for collection</b></p> <p>Independent spot surveys would be required on national and international staff mobility as this will differ significantly from country to country depending on the centralised or institutionally based system of staff selection and appointment.</p>

National action	Goal	Objective	Indicators
<p>1. States, including their governments, parliaments and other decision-makers, should:</p> <p>1(n) Provide and ensure those conditions necessary for the exercise of academic freedom and institutional autonomy so as to allow institutions of higher education, as well as those individuals engaged in higher education and research, to fulfil their obligations to society</p>	<p>To <i>measure</i> the degree of autonomy awarded to institutions of higher education and research, in order to fulfil their obligations to society</p>	<p>Institutional effectiveness (autonomy and performance)</p>	<p><b>Currently available</b></p> <p>General Indicators are only available on the source of funds for research and development and their focus in terms of the allocation by sector of performance, statistical information is not readily available on autonomy of fund allocation – which would require a spot institution wide survey.</p> <ol style="list-style-type: none"> <li>1. UNESCO – SYB(1998) R &amp; D sector of performance (Table 5.3, pp. 5.12)</li> <li>2. UNESCO – SYB(1998) R &amp; D source of funds (Table 5.5, pp. 5.30).</li> </ol> <p><b>Recommended for collection</b></p> <p>A spot survey to determine whether higher education institutions in the respective countries have adopted policies concerning academic freedom, as set out in the Recommendation on the <i>Status of Higher-Education Teaching Personnel</i> approved by the General Conference of UNESCO in November 1997;</p>

National action	Goal	Objective	Indicators
<p>2. States in which enrolment in higher education is low by internationally accepted comparative standards - should strive to ensure a level of higher education adequate for relevant needs in the public and private sectors of society. And to establish plans for diversifying and expanding access, particularly benefiting all minorities and disadvantaged groups</p>	<p>To raise enrolment levels and <i>expand</i> the level of access to minorities and the disadvantaged in higher education from the public and private sectors</p>	<p>Promotion of access on merit (economic – assistance to minorities and the disadvantaged)</p>	<p><b>Currently available</b></p> <p>Performance indicators include reviewing shifts in enrolments in higher education over time (1980-96) and public and private financial support given to assist minorities/disadvantaged students participating in higher education include:</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Current Public Expenditure by purpose and by level – scholarships and welfare service spent on students (Table 4.4, pp. 4-51).</li> <li>2. OECD-EAAG (1998) Educational expenditure as a percentage of GDP from tertiary education, by source of funds – public subsidies and financial aid to students (1990-1995) (Table B1.1c, pp. 83).</li> <li>3. OECD-EAAG (1998) Expenditure per student relative to GDP per capita on public and private institutions by level of education (1995) (Table B4.3, pp. 120).</li> <li>4. UNESCO-SYB (1998) Education at the third level: teachers and students (enrolled) by type of institution 1980-96 (Table 3.10, pp. 3.229).</li> </ol> <p><b>Recommended for collection</b></p> <p>Where not collected nationally as in India and Australia, independent spot surveys would be required to ascertain access to tertiary education from minority and/or disadvantage groups. An example is drawn from the Australian Good University Guide (2000) who considers the level of access to the higher education institutions from Aboriginal and Torres Strait Islander students.</p>

National action	Goal	Objective	Indicators
<p>3. The interface with general, technical and professional secondary education should be reviewed in depth, in the context of lifelong learning. Access to higher education in whatever form must remain open to those successfully completing secondary education or its equivalent or meeting entry qualifications at any age, while creating gateways to higher education, especially for older students without any formal secondary education certificates, by attaching more importance to their professional experience.</p> <p>However, preparation for higher education should not be sole purpose of secondary education, which should also aim at world of work, with complementary training whenever required, providing knowledge, capacities &amp; skills for a range of jobs. The concept of bridging programmes should be promoted to allow those entering the job market to return to studies at a later date.</p>	<p>To provide complementary training to enter the world of work from secondary education and facilitate a range of gateways for persons wishing to gain entry into higher education institutions</p>	<p>Society and work (lifelong source of professional training)</p>	<p><b>Currently available</b></p> <p>A Performance Indicator can be gained from reviewing shifts in the proportion and number of students enrolled at the different types of tertiary institutions (distance learning, universities and non-university institutions such as teachers training colleges, technical colleges) between 1980-95 which is shown in the first statistical table and followed by a table on participation rates in education and training in the 25-64 year old bracket:</p> <ul style="list-style-type: none"> <li>• UNESCO–SYB (1998) Third level teachers and students – students enrolled in the different types of institutions between 1980 and 1996 (Table 3.10, pp. 3-260).</li> <li>• OECD-EAAG (1998) Percentage of 25 to 64 year-olds participating in education and training and average number of hours of participation in previous year, by type of training, highest level of educational attainment and gender (Table C5.3, pp. 216).</li> </ul> <p>General Outcome Indicators are only available to show flexibility of student entry into higher education:</p> <ul style="list-style-type: none"> <li>• OECD-EAAG (1998) Net entry rates for tertiary level education by gender and mode of participation and age distribution of university level new entrants. (Table C3.1, pp. 183).</li> <li>• OECD-EAAG (1998) Expected years of tertiary education for all 17 year-olds, based on head counts (1990, 1996) and index of change in total enrolment (1990=100). (Table C3.5, pp. 187).</li> </ul>



National action	Goal	Objective	Indicators
<p>4. Concrete steps should be taken to reduce the widening gap between industrially developed and developing countries, in particular the least developed countries, with regard to higher education and research.</p> <p>Concrete steps are also needed to encourage increased co-operation between countries at all levels of economic development with regard to higher education and research.</p> <p>Furthermore:</p> <p>Consideration should be given to making budgetary provisions for the above; and</p> <p>Developing mutually beneficial national and international agreements involving industry;</p> <p>In order to sustain co-operative activities and projects through appropriate incentives and funding in education, research and the development of high-level experts in these countries.</p>	<p>To <i>narrow</i> the gap in industrially developed and developing countries, in particular the least developed countries in the provision of higher education and research.</p>	<p>(Systemic international co-operation activities)</p>	<p><b>Currently available</b></p> <p>Performance Indicators include:</p> <ol style="list-style-type: none"> <li>1. UNESCO – WER (1988) Average annual growth rates in enrolment, by level of education in countries in the more developed regions and in countries in transition 1980-85, 1985-90, 1990-95 (Figure 2.3, pp. 29).</li> <li>2. UNESCO – WER (1988) Average annual growth rates in enrolment, by level of education in countries in the less developed regions 1980-85, 1985-90, 1990-95 (Figure 2.4, pp. 32).</li> <li>3. UNESCO – WER (1988) Expenditure on educational development co-operation by bilateral and multilateral agencies, 1980-95 (Table 14, pp. 112).</li> <li>4. UNESCO-SYB (1998) Expenditure on R&amp;D by source of funds (Table 5.5, pp. 5.31).</li> <li>5. UNESCO-SYB (1998) Current public expenditure on education by purpose and by level of education (Table 4.4, pp. 4.51).</li> </ol> <p><b>Recommended for collection</b></p> <p>In order to measure any change in the gap in industrially developed and developing countries, in particular the least developed countries in regard to higher education post 1996, this is likely to require a qualitative survey looking at central agencies, donors and programs with developing countries.</p>

Institutional action	Goal	Objective	Indicators
<p>5. Each higher education institution should define its mission according to:</p> <p>Present and future needs of society;</p> <p>An awareness of higher education being essential for any country or region to reach an environmentally sustainable level of economic and social development and cultural creativity – nourished by: better knowledge &amp; understanding of its cultural heritage; higher living standards; and internal and international harmony and peace, based on human rights, democracy and mutual respect.</p> <p>These missions should incorporate the concept of academic freedom set out in the Recommendation concerning the Status of Higher-Education Teaching Personnel approved by the General Conference of UNESCO in Nov. 1997.</p>	<p>Higher education institutions establish and foster their mission and degree courses, which contribute towards regions reaching an environmentally sustainable level of economic and social development and cultural creativity</p>	<p>Institutional effectiveness (curriculum and course relevance)</p>	<p><b>Currently available</b></p> <p>A very general Performance Indicator can be established (notwithstanding war and natural disaster) between reviewing shifts in the number of graduates over time by field of study in the respective countries and any shifts in indicators relating to the fields of study these factors relate to in terms of raising a population's quality of life, education levels, health standards, environmentally sustainable development and growth of the economy during the same time period in the respective countries.</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Education at the third level: graduates by ISCED level and field of study 1980-1997 (Table 3.12, pp. 3-345).</li> <li>2. UNDP-Human Development Report (1999): <ul style="list-style-type: none"> <li>• Trends in human development and per capita income 1980-97, (Table 6, pp. 151).</li> <li>• Trends in human development and economic growth 1980-97, (Table 7, pp. 155).</li> <li>• Health profile (Table 9 pp. 173).</li> <li>• Educational Imbalances (Table 10, pp. 177).</li> <li>• Resource Use Imbalances (Table 13, pp. 188).</li> <li>• Profile of Environmental Degradation 1980-97 (Table 18, pp. 205).</li> </ul> </li> </ol>

Institutional action	Goal	Objective	Indicators
<p>6. In establishing priorities in their programmes and structures, higher education institutions should:</p> <p>6(a) Take into account the need to abide by the rules of ethics and scientific and intellectual rigour, and the multi-disciplinary and trans-disciplinary approach</p>	<p>How well higher education institutions abide by the rules of ethics and scientific and intellectual rigour, and the multi-disciplinary and trans-disciplinary approach</p>	<p>Institutional effectiveness (quality)</p>	<p><b>Currently available</b></p> <p>General Indicators that Member States can access to gain a general perspective on the origin of funds for research and development and where these funds are then distributed in the respective countries include:</p> <ol style="list-style-type: none"> <li>1. UNESCO – SYB(1998) Personnel engaged in R &amp; D by sector of performance (Table 5.3, pp. 5-12).</li> <li>2. UNESCO – SYB(1998) Expenditure on R &amp; D by sector of performance (Table 5.6, pp. 5-36).</li> <li>3. UNESCO – SYB(1998) Expenditure on R &amp; D by source of funds (Table 5.5, pp. 5-30).</li> </ol> <p><b>Recommended for collection</b></p> <p>More complex is for Member States to measure how well higher education institutions abide by the rules of ethics and scientific and intellectual rigour, and the multidisciplinary and transdisciplinary approach, a snapshot review survey may assist by assessing the:</p> <ol style="list-style-type: none"> <li>1. Process for professional accreditation of higher education institutions;</li> <li>2. Presence and adoption of a national code of research ethics;</li> <li>3. Presence of partnership programmes across and between disciplines.</li> </ol>

Institutional action	Goal	Objective	Indicators
<p>6. In establishing priorities in their programmes and structures, higher education institutions should:</p> <p>6(b) Be primarily concerned to establish systems of access for the benefit of all persons who have the necessary abilities and motivations</p>	<p>How well institutions have established systems of access for the benefit of all persons who have the necessary abilities and motivations to attend higher education</p>	<p>Institutional effectiveness (participation and access)</p>	<p><b>Currently available</b></p> <p>Simple Performance Indicators for reviewing the success of systems of access include the presence of:</p> <ol style="list-style-type: none"> <li>1. UNESCO-WSOHE (1998) Student enrolment in open and distance-learning institutions as a percentage of total enrolment 1985-1995 (Table 3.1, pp. 11).</li> <li>2. OECD-EAAG (1998) Percentage of adult education and training courses that received at least partial funding from various sources, by gender of individual taking the course 1994-1995 (Table C5.6, pp. 219).</li> <li>3. OECD-EAAG (1998) Percentage distribution of the location of adult education and training courses (Table C5.7, pp. 220).</li> <li>4. OECD-EAAG (1998) Percentage of Adult Education and Training Courses using Various Media 1994-1995 (Table C5.8, pp. 220) .</li> <li>5. OECD-EAAG (1998) Perceived barriers to participation in continuing education and training among non-participants who wanted to take training 1994-1995 (Table C5.9, pp. 220)</li> </ol> <p><b>Recommended for collection</b></p> <ol style="list-style-type: none"> <li>1. Presence and application of access and equal opportunity policies at higher education institutions.</li> <li>2. Information on the ratios of applicants to available places at higher education institutions.</li> </ol>

Institutional action	Goal	Objective	Indicators
<p>6(c) Higher education institutions should use their autonomy and high academic standards to contribute to sustainable development and give forewarning through the analysis of:</p> <ul style="list-style-type: none"> <li>➤ Social pertinence of studies and their anticipatory function, based on scientific grounds;</li> <li>➤ Knowledge of fundamental social questions, in particular elimination of poverty, sustainable development, intercultural dialogue and shaping of a culture of peace;</li> <li>➤ Close connection with effective research organisations and Institutions with excellence in this field;</li> <li>➤ Fundamentals of human ethics, applied to each profession and to all areas of human endeavour</li> </ul>	<p>To <i>measure</i> how well higher education institutions contribute to the sustainable development of society through the analysis of emerging social, cultural, economic and political trends</p>	<p>Institutional effectiveness (quality; curriculum; research performance)</p>	<p><b>Currently available</b></p> <p>Performance Indicators on a national scale to examine the number of people undertaking research in each country and the subsequent production of research matter, in addition to those factors shown in Section (5) includes:</p> <ol style="list-style-type: none"> <li>1. UNESCO – SYB(1998) Personnel engaged in R &amp; D by sector of performance (Table 5.3, pp. 5-12).</li> <li>2. UNESCO – SYB(1998) Book production: Number of Titles/Copies by UDC classes (Table 7.4, pp. 7-31/ Table 7.5, pp. 7-38).</li> <li>3. UNESCO – SYB(1998) Libraries by category: number, collections, additions, registered users (Table 7.1, pp. 7-8).</li> </ol> <p>General Indicator includes:</p> <ol style="list-style-type: none"> <li>4. UNESCO – SYB(1998) Daily/Non-daily newspapers: number and circulation (Table 7.8, pp. 7-47/ Table 7.9, pp. 7-51).</li> </ol>

Institutional action	Goal	Objective	Indicators
<p>6. In establishing priorities in their programmes and structures, higher education institutions should ensure:</p> <p>6(d) Especially in universities and as far as possible - that faculty members participate in teaching, research, tutoring students and steering institutional affairs</p>	<p>To <i>measure</i> how well university faculty members participate in teaching, research, tutoring students and steering institutional affairs</p>	<p>Institutional effectiveness (staff participation and assessment)</p>	<p><b>Currently available</b></p> <p>General Indicators are only available to show staff breakdown by:</p> <ul style="list-style-type: none"> <li>• UNESCO – SYB(1998) Education at the third level: teachers and students by type of institution (Table 3.10, pp. 3-229).</li> <li>• UNESCO – SYB(1998) Personnel engaged in R&amp;D by higher education sector performance and by category of personnel (Table 5.3, pp. 5-12).</li> </ul> <p><b>Recommended for collection</b></p> <p>Member States may seek to undertake a snapshot survey of their respective higher education institutions to measure how well university faculty members are able to distribute their time to participate in teaching, research, tutoring students and steering institutional affairs.</p>
<p>6(e) To take all necessary measures to reinforce their service to the community, especially their activities aimed at eliminating poverty, intolerance, violence, illiteracy, hunger and disease, through an interdisciplinary and transdisciplinary approach in the analysis of challenges, problems and different subjects</p>	<p>To <i>gauge</i> how well Higher education institutions are serving the community, through their approach to the analysis of challenges, problems and different subjects</p>	<p>Institutional effectiveness (curriculum &amp; course relevance; research links and performance; ethos)</p>	<p><b>Currently available</b></p> <ol style="list-style-type: none"> <li>1. UNESCO – WER (1998) Tertiary education: students and graduates by broad field of study 1995 (Table 9, pp. 152).</li> </ol> <p><b>Recommended for collection</b></p> <p>In order to gain an indication of how well higher education institutions may be serving respective regions, Member States may seek to analyse the range of different subjects disseminated, taught and taken and the:</p> <ol style="list-style-type: none"> <li>1. Presence, adoption and practice within the higher education institution that leads to an interdisciplinary &amp; trans-disciplinary curriculum base that contributes to eliminating poverty, intolerance, violence, illiteracy, hunger and disease, in the analysis of challenges and different subjects.</li> </ol>

Institutional action	Goal	Objective	Indicators
<p>6. In establishing priorities in their programmes and structures, higher education institutions should:</p> <p>6(f) Set their relations with the world of work on a new basis involving effective partnerships with all social actors concerned, starting from a reciprocal harmonisation of action and the search for solutions to pressing problems of humanity, all this within a framework of responsible autonomy and academic freedoms</p>	<p>How well higher education institutions set their relations with the world of work on a new humanitarian basis within a framework of responsible autonomy and academic freedom</p>	<p>Society and work (strength of link between higher education and workplace)</p>	<p><b>Currently available</b></p> <p>1. OECD-EAAG (1998) Percentage of 25 to 64 year-olds participating in education and training in the previous year by type of training, current primary work situation, gender and age 1994-1995 (Table C5.2, pp. 215)</p> <p><b>Recommended for collection</b></p> <p>In order to measure the success or otherwise of the development of innovative schemes of collaboration between higher education and the world of work from a humanitarian basis, Member States would need to undertake spot surveys. Some indicators that may be posed in this respect include:</p> <ul style="list-style-type: none"> <li>• Whether there is an independent national forum at the highest level where academics and business people can mark out areas of common interest.</li> <li>• Agree to policy priorities and offer a joint voice about university development to government, universities and employers, public and private – student placements and research funds from industry.</li> <li>• Higher education institution recognition of its regional responsibilities, the local and national economy and to society in its mission statement or strategic plan.</li> <li>• Employer attendance on higher education institution governing bodies and active and constructive participation in higher education affairs.</li> <li>• Proportion of income arising from training and research services provided for employers.</li> </ul>

Institutional action	Goal	Objective	Indicators
<p>6. In establishing priorities in their programmes and structures, higher education institutions should :</p> <p>6(g) Ensure high quality of international standing, accountability and both internal and external evaluation, with due respect for autonomy and academic freedom, as being normal and inherent and institutionalise transparent systems, structures and mechanisms</p>	<p>To <i>measure</i> the international standing, accountability and transparency of the affairs of the higher education institutions</p>	<p>Institutional effectiveness (quality)</p>	<p><b>Recommended for collection</b></p> <p>Measures Member States may use to <i>gauge</i> the international standing, accountability and transparency of the affairs of their higher education institutions could include identifying their:</p> <ol style="list-style-type: none"> <li>1. Participation in the UNITWIN/ UNESCO Chairs Program in Higher Education Management and International Relations; and</li> <li>2. International publication of research papers and journal articles;</li> <li>3. Autonomy to undertake and publish research;</li> <li>4. International standing of their degrees with peers;</li> <li>5. International quality audits of institutions of higher education;</li> <li>6. Professional accreditation of higher education institutions by relevant international professional associations.</li> </ol>
<p>6(h) In establishing priorities in their programmes and structures, higher education institutions should establish appropriate academic staff development structures and/or mechanisms and programmes as lifelong education requires academic staff to update and improve their teaching skills and learning methods, even more than in the present systems mainly based on short periods of higher teaching</p>	<p>To <i>gauge</i> how well higher education institutions are establishing programmes and structures to facilitate academic staff updating and improving their teaching skills and learning methods</p>	<p>Institutional effectiveness (staff assessment and participation)</p>	<p><b>Currently available</b></p> <p>There are no internationally comparable statistics on academic staff training. Statistics below are general indicators only on the amount and proportion of funds allocated to teaching specifically in higher education and also performance indicators on the changing numbers of teaching staff in tertiary education between 1980 and 1996.</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Education at the third level: teachers and students by type of institution (Table 3.10, pp. 3-229).</li> <li>2. UNESCO-SYB (1998) Current Public expenditure on education by purpose and by level of education (Table 4.4, pp. 4-51).</li> </ol> <p><b>Recommended for collection</b></p> <p>More qualitative data in this area is shown in the UNESCO report on Higher Education Staff Development: Directions for the Twenty-first Century (1994). In addition a spot survey would be required to ascertain the proportion of Institutional funds spent on staff development and training.</p>



Institutional action	Goal	Objective	Indicators
<p>6. In establishing priorities in their programmes and structures, higher education institutions should:</p> <p>6(i) Promote and develop research, as a necessary feature of all higher education disciplines, including the human and social sciences and arts, given their relevance for development. Also, research on higher education itself should be strengthened through mechanisms such as the UNESCO/UNU Forum on Higher Education and the UNESCO Chairs in Higher Education</p> <p>Objective, timely studies are needed to ensure continued progress towards such key national priorities as access, equity, quality, relevance and diversification</p>	<p>To <i>measure</i> higher education institution's promotion and development of research in all disciplines</p>	<p>Institutional effectiveness (research links and performance)</p>	<p><b>Currently available</b></p> <p>General indicators on where the discipline focus of the higher education institutions is in each country can be ascertained from:</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Education at the Third Level: Students by ISCED level and field of study (Table 3.11, pp. 3-263).</li> </ol> <p><b>Recommended for collection</b></p> <p>In order to measure higher education institute's promotion and development of research in all disciplines a snapshot survey will be required on Institutions research strategies and spending on research. Research is also sought in higher education itself through the adoption and application of mechanisms such as the UNESCO/UNU Forum on Higher Education and the UNESCO Chairs in Higher Education. Key factors to look at include:</p> <ol style="list-style-type: none"> <li>1. Number of research students</li> <li>2. Student completion rates <ul style="list-style-type: none"> <li>• Masters</li> <li>• PhDs</li> </ul> </li> <li>3. Funding</li> <li>4. Research quantum <ul style="list-style-type: none"> <li>• Value of national competitive research grants</li> <li>• Other public sector research grants</li> <li>• Research funding from industry and charities</li> <li>• Total research income per academic staff member</li> <li>• Total research expenditure per academic staff member</li> </ul> </li> <li>5. Publications <ul style="list-style-type: none"> <li>• Weighted publication index</li> <li>• Number of books</li> <li>• Number of journal articles.</li> </ul> </li> </ol>

Institutional action	Goal	Objective	Indicators
<p>6. In establishing priorities in their programmes and structures, higher education institutions should:</p> <p>6(j) Remove gender inequalities and biases in curricula and research, and take all appropriate measures to ensure balanced representation of both men and women among students and teachers, at all levels of management</p>	<p>To <i>measure</i> higher education institution programmes to remove gender inequalities in curricula and research and balanced representation among all levels of management</p>	<p>Promotion of access on merit (social – equal opportunity)</p>	<p><b>Currently available</b></p> <p>General Indicators of gender breakdown in tertiary institutions as follows:</p> <ol style="list-style-type: none"> <li>1. OECD-EEAG (1998) Distribution of university-level qualifications in different subject categories by gender 1996 (Chart C4.5, pp. 196).</li> </ol> <p>Performance Indicators to show shifts in gender representation over time include:</p> <ol style="list-style-type: none"> <li>2. UNESCO-SYB (1998) Education at the Third Level: teachers and students by type of institution and proportion of female teaching staff at each level and type of institution 1980-96 (Table 3.10, pp. 3/229 – 3/261).</li> <li>3. UNESCO-SYB (1998) Education at the Third Level: Students by (Gender) ISCED level and field of study 1980-96 (Table 3.11, pp. 3/262 – 3/344).</li> <li>4. UNDP-Human Development Report (1999) Gender Gaps in Education (Table 25, pp. 230).</li> </ol> <p><b>Recommended for collection</b></p> <p>Spot surveys may be needed to assess the gender balance among the manager in higher education institutions.</p>

Institutional action	Goal	Objective	Indicators
<p>6. In establishing priorities in their programmes and structures, higher education institutions should:</p> <p>6(k) Provide, where appropriate, guidance and counselling, remedial courses, training in how to study and other forms of student support, including measures to improve student living conditions</p>	<p>To <i>gain an indication of</i> how well higher education Institutions give support to students</p>	<p>Promotion of access on merit (social – equal opportunity)</p>	<p><b>Currently available</b></p> <p>General Indicators would be to establish if a particular country has a high survival or drop out rate to show type and category of student support::</p> <ol style="list-style-type: none"> <li>1. OECD-EEAG (1998) Rates of survival and drop out in university level education (Table C4.1, pp. 198)</li> <li>2. OECD-EEAG (1998) Direct expenditure for institutions and transfers to the private sector as a percentage of total government expenditure on tertiary education (Table B3.2b, pp. 104)</li> </ol> <p><b>Recommended for collection</b></p> <p>To measure how well higher education institutions give support to students a snapshot survey (in addition to earlier indicative data in 6(a) will be required to ascertain the degree of student satisfaction and if available the presence, funding and nature of Student Support Services at higher education institutions. A major Australian study DEETYA (1998) involved the development of a questionnaire consisting of thirty items to students on their level of satisfaction. These covered five broad characteristics of teaching quality; student motivation and general teaching performance; clarity of goals and standards; student workload; appropriateness of assessment; and emphasis on independent learning.</p>

Institutional action	Goal	Objective	Indicators
<p>7. While the need for closer links between higher education and the world of work is important worldwide, it is particularly vital for the developing countries and especially the least developed countries, given their low level of economic development.</p> <p>At the same time, international action is needed in order to help establish joint undertakings between higher education and industry in these countries. It will be necessary to give consideration to ways in which higher education graduates could be supported, through various schemes.</p> <p>At the institutional level, developing entrepreneurial skills and initiative should become a major concern of higher education, in order to facilitate employability of graduates who will increasingly be required not only to be job seekers but also to become job-creators.</p>	<p>How well governments and industry support closer links between higher education and the world of work to facilitate employability of graduates who will increasingly be required not only to be job seekers but also to become job-creators</p>	<p>Society and work (Development of entrepreneurial skills – higher education to turn out job creators and social responsibility)</p>	<p><b>Currently available</b></p> <p>General Indicators only available to show the source of funds (government, productive enterprise, foreign and other funds) to each country to fund research and development:</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Expenditure on R&amp;D by source of funds (table 5.5, pp. 5-30).</li> <li>2. OECD-EEAG (1998) Percentage of adult education and training courses that receive at least partial funding from various sources, by gender of individual taking the course (1994-1995). (Table C5.6, pp. 219).</li> </ol> <p><b>Recommended for collection</b></p> <ol style="list-style-type: none"> <li>1. Surveys of graduate employment, after two and five years, identifying those still in full time education and those without employment.</li> </ol>

Systemic action	Goal	Objective	Indicators
<p>8. The use of new technologies should be generalised to the greatest extent possible to help higher education institutions to:</p> <ul style="list-style-type: none"> <li>• reinforce academic development;</li> <li>• widen access;</li> <li>• attain universal scope and extend knowledge;</li> <li>• as well as to facilitate education throughout life.</li> </ul> <p>Governments, educational institutions and the private sector should ensure that informatics and communication network infrastructure, computer facilities and human resources training are adequately provided</p>	<p>To <i>measure</i> how well the use of new technologies are being generalised to the greatest extent possible to help higher education institutions</p>	<p>Modernization of systems (access to technology)</p>	<p><b>Currently available</b></p> <p>General Indicators showing delivery of higher education by different technologies and access to information technology by the general population in each country which would provide the local context for their respective higher education institutions, as follows:</p> <ul style="list-style-type: none"> <li>• OECD-EAAG (1998) Percentage of Adult Education and Training Courses using Various Media 1994-1995 (Table C5.8, pp. 220).</li> <li>• The World Bank (2000) World Development Report – (Table 19, pp. 266) Communications, information, and science and technology access by country showing: <ul style="list-style-type: none"> <li>• Daily newspapers per 1000 people (1996)</li> <li>• Radios per 1000 people (1996)</li> <li>• Mobile phones per 1000 people (1997)</li> <li>• Telephone main lines per 1000 people (1997)</li> <li>• Personal Computers per 1000 people (1997)</li> <li>• Internet hosts per 10000 people (1999).</li> </ul> </li> </ul> <p><b>Recommended for collection</b></p> <p>There are only limited internationally comparable indicators from the higher education institutions themselves in respect of the use of new technologies. An annual Campus Computing Survey is undertaken privately in the USA but this has no international comparators. Many countries see electronic access and ICT awareness as a key national development in terms of competitiveness; they will therefore be sympathetic to undertaking surveys of the use of ICT. In view of very fast moving developments this would have to be done annually.</p>

Institutional action	Goal	Objective	Indicators
<p>9. Institutions of higher education should be open to adult learners:</p> <p>9(a) by developing coherent mechanisms to recognize the outcomes of learning undertaken in different contexts, and ensure credit is transferable within and between institutions, sectors and states;</p> <p>9(b) by establishing joint higher education/ community research and training partnerships, and by bringing the services of higher education institutions to outside groups;</p> <p>9(c) by carrying out interdisciplinary research in all aspects of adult education and learning with the participation of adult learners themselves;</p> <p>9(d) how well higher education institutions are open to adult learners through creating flexible, open and creative opportunities for adult learning</p>	<p>How well higher education institutions are open to adult learners through different contexts and ensuring credit is transferable within and between institutions, sectors and states</p>	<p>Promotion of access on merit (cultural – seamless and open access to higher education)</p>	<p><b>Currently available</b></p> <p>Performance Indicators are:</p> <ol style="list-style-type: none"> <li>1. UNESCO-WSOHE (1998) Student enrolment in open and distance-learning institutions as a percentage of total enrolment (Table 3.11, pp. 11).</li> <li>2. OECD-EEAG (1998) Percentage distribution of the location of adult education and training courses 1994-1995 (Table 5.7, pp. 220).</li> </ol> <p>General Indicators include:</p> <ol style="list-style-type: none"> <li>1. OECD-EEAG (1998) Percentage distribution of non-university tertiary and university-level qualifications between subject categories (Table C4.4, pp. 202).</li> </ol> <p><b>Recommended for collection</b></p> <p>There are presently no known internationally comparable indicators from the higher education institutions or Member States on the openness of higher education to adult learners, measured for example by credit transfers or joint community partnerships. However Member States can undertake surveys to measure the presence of such factors within and between institutions, sectors and states.</p>

International action	Goal	Objective	Indicators
<p>10. Co-operation should be conceived of as an integral part of the institutional missions of higher education institutions and systems. Intergovernmental organizations, donor agencies and non-governmental organizations should extend their action in order to develop inter-university co-operation projects in particular through twinning institutions, based on solidarity and partnership, as a means of bridging the gap between rich and poor countries in the vital areas of knowledge production and application. Each institution of higher education should envisage the creation of an appropriate structure and/or mechanism for promoting and managing international co-operation</p>	<p>To <i>measure</i> how well higher education institutions are setting up partnerships and systems as a means of bridging the gap between rich and poor countries in the vital areas of knowledge production and application</p>	<p>Institutional effectiveness (international co-operation activities)</p>	<p><b>Currently available</b></p> <p>Performance Indicators include:</p> <ol style="list-style-type: none"> <li>1. UNESCO-WER (1998) Expenditure on educational development co-operation by bilateral and multilateral agencies, 1980-95 (millions of current US dollars) (Table 14, pp. 112).</li> </ol> <p>General Indicators include:</p> <ol style="list-style-type: none"> <li>2. The World Bank (1999) World Development Indicators including: <ul style="list-style-type: none"> <li>• Net financial flows from Development Assistance Committee members (Table 6.8, pp. 438).</li> <li>• Distribution of net aid by Development Assistance Committee members (Table 6.11, pp. 356).</li> <li>• Net financial flows from multilateral institutions. (Table 6.12, pp. 360).</li> </ul> </li> </ol> <p><b>Recommended for collection</b></p> <p>Access to statistical data on partnerships between universities, such as from the UNITWIN/UNESCO Chairs Programme, which relies on networks of national, regional and international higher education institutions and survey of international offices would be useful. The Task Force Report from the World Bank (2000) on Higher Education in Developing Countries addresses local, regional and international co-operation measures and can be a useful guide for Member States. The national development aid strategy will be relevant and the share of funding given to support institutional partnerships and exchanges will often be a limiting factor on the extent to which higher education institutions can invest in north-south and south-south collaboration.</p>

International action	Goal	Objective	Indicators
<p>11. UNESCO, and other inter-governmental and non-governmental organizations active in higher education, the states through their bilateral and multilateral co-operation programmes, the academic community and all societal partners should promote international academic mobility as a means of attaining and sharing knowledge. This is to be done in order:</p> <ul style="list-style-type: none"> <li>• to promote solidarity as the main element in the global society of knowledge;</li> <li>• through strong support for the Joint Work Plan (1999-2005) of the six inter-governmental committees; and</li> <li>• through large-scale co-operative action involving, inter alia, the establishment of an educational credit transfer scheme, with particular emphasis on South-South co-operation, the needs of the least developed countries and of the small states with few higher education institutions or none at all</li> </ul>	<p>How well UNESCO, and other intergovernmental and non-governmental organizations active in higher education, are promoting international academic mobility as a means of attaining and sharing knowledge</p>	<p>Modernization of systems (mobility trends)</p>	<p><b>Currently available</b> General Indicators only are available to show the results of student mobility, as follows:</p> <ol style="list-style-type: none"> <li>1. UNESCO-WER (1998) Foreign students by host region and region of origin (Table 11, pp. 110).</li> <li>2. UNESCO-WSOHE (1998) Estimated number of students abroad as a percentage of national enrolment in 50 major countries of origin (Table C.4, pp. 58).</li> </ol> <p><b>Recommended for collection</b> Member States may wish to undertake working projects to ascertain the support within their administrations for the Joint Work Plan (1999-2005) of the six intergovernmental committees and for the establishment of an educational credit transfer scheme, with particular emphasis on South-South co-operation, the needs of the least developed countries and of small states with few higher education institutions or none at all.</p>



International action	Goal	Objective	Indicators
<p>12. Institutions of higher education in industrialised countries should strive to make arrangements for international co-operation with sister institutions in developing countries and in particular with those of poor countries.</p> <ul style="list-style-type: none"> <li>• In their co-operation, the institutions should make efforts to ensure fair and just recognition of studies abroad.</li> <li>• UNESCO should take initiatives to develop higher education throughout the world, setting itself clear-cut goals that could lead to tangible results.</li> <li>• One method might be to implement projects in different regions renewing efforts towards creating and/or strengthening centres of excellence in developing countries, in particular through the UNITWIN/UNESCO Chairs Programme, relying on networks of national, regional and international higher education institutions</li> </ul>	<p>How well higher education institutions in industrialised countries are striving to make arrangements for international co-operation with sister institutions in developing countries and in particular with those of poor countries</p>	<p>Institutional effectiveness (international co-operation activities)</p>	<p><b>Recommended for collection</b></p> <p>Member States may wish to develop statistical data on partnerships between universities and how they are funded, (particularly between developing and poorer countries) such as from UNITWIN/UNESCO Chairs Programme, which relies on networks of national, regional and international higher education institutions.</p> <p>It must be noted that the scale of these links will be largely dependent on government funding and that institutions themselves are unlikely to be able to support much activity of this kind from their own sources.</p>

International action	Goal	Objective	Indicators
<p>13. UNESCO, together with all concerned parts of society, should also undertake action in order to alleviate the negative effects of 'brain drain' and to shift to a dynamic process of 'brain gain'. An overall analysis is required in all regions of the world of the causes and effects of brain drain.</p> <p>A vigorous campaign should be launched through the concerted effort of the international community and academic solidarity to encourage the return to their home country of expatriate academics.</p> <p>As well as the involvement of university volunteers – newly retired academics or young academics at the beginning of their career – who wish to teach and undertake research at higher education institutions in developing countries.</p> <p>At the same time it is essential to support the developing countries in their efforts to build and strengthen their own educational capacities.</p>	<p>To <i>measure</i> how well UNESCO, together with all concerned parts of society, are undertaking action in order to alleviate the negative effects of 'brain drain' and to shift to a dynamic process of 'brain gain'</p>	<p>Institutional effectiveness (international co-operation activities)</p>	<p><b>Currently available</b></p> <p>Performance Indicators which review changes over time in the number of foreign students enrolled by country, accompanied by identifying which countries students originate from, can help each Member State to concentrate efforts on ensuring more reciprocal arrangements. This would be used together with data on public expenditure on tertiary education by each country which would put these figures into context:</p> <ol style="list-style-type: none"> <li>1. UNESCO-SYB (1998) Education at the third level: number of foreign students enrolled 1980 – 1996 (Table 3.13, pp. 3-392).</li> <li>2. UNESCO-SYB (1998) Third Level: foreign students by country of origin (Table 3.14, pp. 3-396).</li> <li>3. UNESCO-SYB (1998) Current public expenditure on education by purpose and by level of education (Table 4.4, pp. 4-51).</li> </ol> <p>General Indicators can also be applied to show the presence of graduates in a country's labour force:</p> <ol style="list-style-type: none"> <li>4. OECD-EAAG (1998) Number of science graduates per 100,000 persons of 25 to 34 years of age in the labour force (No.59).</li> </ol> <p><b>Recommended for collection</b></p> <p>Member States can contribute to this area by co-operatively providing programmes in developing countries for volunteers, such as newly retired or young academics. Statistics on the numbers of these volunteers should be recorded.</p> <p>UNESCO can encourage Member States to record details of the country of origin of academic staff, particularly identifying those who have stayed on after graduation as an international student.</p>

Institutional action	Goal	Objective	Indicators
<p>14. Within this framework, UNESCO should:</p> <p>14(a) Promote better co-ordination among intergovernmental, supranational and non-governmental organizations, agencies and foundations that sponsor existing programmes and projects for international co-operation in higher education. Furthermore, co-ordination efforts should take place in the context of national priorities. This could be conducive to the pooling and sharing of resources, avoid overlapping and promote better identification of projects, greater impact of action and increased assurance of their validity through collective agreement and review. Programmes aiming at the rapid transfer of knowledge, supporting institutional development and establishing centres of excellence in all areas of knowledge, in particular for peace education, conflict resolution, human rights and democracy, should be supported by institutions and by public and private donors</p>	<p>How well UNESCO is promoting better co-ordination among inter-governmental, supranational and non-governmental organizations, agencies and foundations that sponsor existing programmes and projects for international co-operation in higher education</p>	<p>Institutional effectiveness (international co-operation activities)</p>	<p><b>Recommended for collection</b></p> <p>The main indicator is the scale of active participation by all partners (i.e. Member States, IGOs, NGOs, donors, professional and community bodies) in the various mechanisms established as part of the WCHE Follow-up Strategy to: continue mobilisation for debate; orient renewal and collect and disseminate innovative good practice. These mechanisms include:</p> <ol style="list-style-type: none"> <li>1. The Higher Education Partners Forum and its working groups which, together, track the support given and trends related to specific areas of the sector;</li> <li>2. The WCHE International Follow-up Committee (60 members and resource persons) whose mandate is to co-ordinate the monitoring process and to advise on its future orientation. The five Regional Committees (total 60 persons) whose mandates are to focus on monitoring and orientation of higher education renewal in regard to the socio-economic and cultural priorities of each region.</li> <li>3. The NGO Collective Consultation on Higher Education which has 57 members with outreach to 4,000 institutions, 300 associations/unions and 25,000,000 specialists worldwide; this body debates issues and undertakes specific renewal projects in the various areas of its competence, reflecting in each instance the standpoint of civil society.</li> <li>4. The UNITWIN/UNESCO Chairs Programme, which promotes inter-university linkages on a North/South and East/West basis to ensure advanced exchange of knowledge, training and research in fields related to sustainable human development. As part of the programmes, networks on specific areas have been established, eg: Chairs in Human Rights.</li> <li>5. The Intersectoral Committee on Higher Education which, as an internal UNESCO mechanism, ensures optimal co-ordination amongst sectors and their common areas of responsibility in higher education.</li> </ol>

International action	Goal	Objective	Indicators
<p>14. Within this framework, UNESCO should:</p> <p>14(b) Jointly with the United Nations University and with National Commissions and various intergovernmental and non-governmental organizations, become a forum of reflection on higher education issues aiming at:</p> <p>(i) Preparing update reports on the state of knowledge on higher education issues in all parts of the world;</p> <p>(ii) Promoting innovative projects of training and research, intended to enhance the specific role of higher education in lifelong education;</p> <p>(iii) Reinforcing international co-operation and emphasising the role of higher education for citizenship education, sustainable development and peace; and</p> <p>(iv) Facilitating exchange of information and establishing, when appropriate, a database on successful experiences and innovations that can be consulted by institutions confronted with problems in their reforms of higher education</p>	<p>To <i>measure</i> how well UNESCO jointly with the United Nations University and with National Commissions and various intergovernmental and non-governmental organizations, become a forum of reflection on higher education issues</p>	<p>Institutional effectiveness (international co-operation activities)</p>	<p><b>Recommended for collection</b></p> <p>The indicator is the active participation by all partners (eg: Member States, IGOs, NGOs, donors, professional and community bodies) in the various mechanisms established as part of the WCHE Follow-up Strategy to continue mobilization for debate; orient renewal and collect and disseminate innovative good practice. These mechanisms include:</p> <ol style="list-style-type: none"> <li>1. UNU/UNESCO Forum – Global University International Network for Innovation (GUINI) which will promote the exchange of innovative practice in all areas related to higher education management and reform.</li> <li>2. The Focal Points Global Network (380 persons) is charged with regular reporting on higher education innovation and with promoting further initiatives for renewal in Member States, IGOs, NGOs and other relevant bodies.</li> <li>3. The UNESCO Research Forum launched in co-operation with the Swedish International Development Co-operation Agency (Sida/Sweden), the OECD, the International Association of Universities and other IGOs and NGOs.</li> <li>4. UNESCO Higher Education E-Forum operates as a permanent space for debate on the change process with regard to key issues and is hosted in co-operation with HE stakeholders.</li> <li>5. The Compendium of Innovative Good Practice, a global catalogue of examples of successful renovation.</li> <li>6. Specific ad hoc Working Groups of the WCHE International Follow-up Committee (eg: the world of work, lifelong learning, the impact of NICTs), monitor these areas to track change and ensure its adoption in the policy debate.</li> </ol>

International action	Goal	Objective	Indicators
<p>14. Within this framework, UNESCO should:</p> <p>14(c) Take specific action to support institutions of higher education in the least developed parts of the world and in regions suffering the effects of conflict or natural disasters</p>	<p>To <i>measure</i> how well UNESCO is taking specific action to support institutions of higher education in the least developed parts of the world and in regions suffering the effects of conflict or natural disasters</p>	<p>Institutional effectiveness (international co-operation activities)</p>	<p><b>Recommended for collection</b></p> <p>The indicator is the effectiveness of measures taken by UNESCO to respond to the needs of LDCs and of countries affected by conflict or disaster including:</p> <ol style="list-style-type: none"> <li>1. Upstream analysis of the higher education sector;</li> <li>2. Fielding of expert missions to assist national authorities and an assessment afterwards of what they have achieved;</li> <li>3. Utilisation of the UNITWIN/UNESCO Chairs Programme to illustrate good practice in inter-university co-operation;</li> <li>4. What support there has been for academic solidarity networks set up to assist crisis situations, e.g. the Academic Task Force for the Balkan Region of the European Universities Association (CRE).</li> </ol>
<p>14(d) Make renewed efforts towards creating or/and strengthening centres of excellence in developing countries</p>	<p>To <i>measure</i> how well UNESCO is making renewed efforts towards creating or/and strengthening centres of excellence in developing countries</p>	<p>Institutional effectiveness (international co-operation activities)</p>	<p><b>Recommended for collection</b></p> <p>The indicator is the evidence of strong participation by higher education stakeholders in mechanisms and the joint projects described above. Activities covered by any review will include:</p> <ol style="list-style-type: none"> <li>1. UNESCO Partner/Donor co-ordination in developing country projects;</li> <li>2. Inter-university networking;</li> <li>3. The work of the Intersectoral Committee on Higher Education;</li> <li>4. Support for individual partner action, e.g. NGO projects.</li> </ol>

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