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Note

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

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Abbreviations

AERC	African Economic Research Consortium
ASEAN	Association of South-East Asian Nations
ECLAC	Economic Commission for Latin America and the Caribbean
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GEIC	Global Environment Information Centre
IMF	International Monetary Fund
INFOODS	International Network of Food Data Systems
IPCC	Intergovernmental Panel on Climate Change
NATO	North Atlantic Treaty Organization
OECD	Organisation for Economic Cooperation and Development
PLEC	People, Land Management and Environmental Change
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
UNITAR	United Nations Institute for Training and Research
UNU	United Nations University
UNU/BIOLAC	UNU Programme for Biotechnology in Latin America and the Caribbean
UNU/GTP	UNU Geothermal Training Programme
UNU/IAS	UNU Institute of Advanced Studies
UNU/IC	UNU International Courses
UNU/IIST	UNU International Institute for Software Technology
UNU/ILA	UNU International Leadership Academy
UNU/INRA	UNU Institute for Natural Resources in Africa

UNU/INTECH	UNU Institute for New Technologies
UNU/INWEH	UNU International Network on Water, Environment and Health
UNU/WIDER	UNU World Institute for Development Economics Research
WIID	World Income Inequality Database
WFP	World Food Programme
WHO	World Health Organization
WTO	World Trade Organization

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Rector's preface

Engaging the challenges of the twenty-first century

In 1999 the United Nations University (UNU) sketched its future identifying the ways we can best address both the unfinished agenda of the twentieth century and the new challenges of the twenty-first century. On Friday, 3 December 1999, the Governing Council adopted the Strategic Plan, 2000: Advancing Knowledge for Human Security and Development. This concluded a vital period of reassessment, peer review, task forces, pilot projects and intensive dialogue within and outside the institution.

The Strategic Plan outlines a vision to make UNU a more open and effective research and capacity-building organization, and one that fills an important niche as a global university in an increasingly globalizing world. It articulates the guiding principles for UNU to reach the highest possible level of quality and relevance, particularly in the selection and implementation of its research, policy studies and capacity-building activities. In order to realize this vision, the Strategic Plan emphasizes excellence and efficiency in management processes and sets a number of targets that the UNU family aims to achieve over the next four years. A key aspect has been to reach out to the UNU partners in international academia, colleagues in the United Nations system, partners in developing countries, particularly Africa, and stakeholders in the host countries of the UNU family, especially Japan.

A central policy of the management of the University is to strengthen its role as a strategic intellectual resource for the multilateral system of cooperation. A good example of this was UNU work on the causes of civil wars and policies to avoid conflict. The Secretary-General drew upon this work extensively in his annual report as well as in subsequent policy speeches. In particular, UNU strengthened its cooperation with a number of departments of the United Nations Secretariat and with the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1999. UNU worked with UNESCO on the follow-up to the World Conference on Higher Education, the UNITWIN/UNESCO Chairs Programme, the World Conference on Science and the International Hydrological Programme as well as on capacity-building in the area of educational software and computer science curriculum development.

But, in order to add value within the United Nations system, UNU must also act as a bridge between the international academic community and the United Nations. A key challenge is to continue developing more diverse and creative ways to build effectively upon the intellectual resources of universities and specialized research institutes in different parts of the world for the benefit of the United Nations. UNU is striving to invigorate its network of associated and collaborating institutions, prominent research groups, international organizations and industry that have similar objectives to UNU. Among many others, UNU signed collaborative agreements with the African Economic Research Consortium for joint work on development issues and with the University of Ghent for the organization of an international training programme on biodiversity. The UNU Food and Nutrition Network, coordinated from Cornell University, has been very successful in strengthening institutes in Chile, Guatemala, India and Thailand. In 1999, UNU initiated a new programme focusing on sub-Saharan Africa. UNU is also developing major new networking activities, such as the international collaborative focusing on strengthening the sustainability of land use and improving living conditions in dry areas from the Sahara to Central Asia.

None of this work would have been possible without the generous support of the host countries of the University Centre and institutes and other Governments around the world. UNU has made particular effort, and is making excellent progress I believe, in linking up to stakeholders in the UNU Centre host-country, Japan. UNU is working with the Prime Minister's Office in organizing the Ship for World Youth. The UNU International Courses completed its pilot phase in 1999 and UNU has expanded the global seminars to an increasing number of locations around Japan, from Hokkaido to Okinawa. In 1999, in addition to the contributions from the Institute's hosts, UNU is grateful for the major programmatic contributions from the Governments of Belgium, Canada, China, Jordan and Tunisia. UNU is also in discussion on future initiatives with the Governments of Germany and Switzerland.

Collaboration with institutions around the world helps provide a truly global perspective to UNU work.

- A good example of this was the work of UNU on the conflict in Kosovo, highlighting the major implications of the humanitarian intervention for world politics.
- Another example was the UNU project with the United Nations Development Programme to compile all existing data on income inequality into a World Income Inequality Database. The UNU analysis highlights that increases have taken place in most countries around the world and that these increases are a threat both to sustaining economic growth and to global efforts to reduce poverty.
- As a continuation of the Zero Emissions Research Initiative started five years ago, UNU launched the Zero Emissions Forum. The Forum brings together representatives from business, Government and the scientific community with three major objectives: research, capacity-building and networking.
- A final example was the UNU work analysing the complex processes that affect the global environment and in trying to provide a framework for United Nations agreements and treaties to develop a more coordinated approach to environmental policy.

Disseminating the findings of UNU work to academics, policy makers and the public continues to be an important part of our mission. Books, journal articles, policy briefs and press articles have been the main modes for making available the results of UNU work, but increasingly it has been using panels and seminars in New York and Geneva as well as in other locations around the world as a means to disseminate its research findings to targeted audiences. A good example of this was the UNU public forums in New York on the issue of preventing humanitarian emergencies. UNU increasingly views electronic dissemination and CD-ROMs as a lower-cost way to reach broader audiences in both industrialized and developing countries, and it will be strengthening its use of these media in the future.

Further information on these and many other issues will be found in the present annual report. Taken together, the issues focused on and the reforms being made show an institution that values quality, meaningful cooperation, that is forward looking and is gearing up to make a valuable contribution to resolving the new and remaining challenges to human security and development.

(Signed) Hans van Ginkel Rector

Chapter I Year in review

Background and introduction

1. The year 1999, the twenty-fourth year for the United Nations University (UNU), was characterized by the preparation of the University's first strategic plan as well as the launching of pilot initiatives within the new lines of development of the University. These lines include bringing the University closer to the United Nations system as well as reaching out to its partners in international academia and to stakeholders in the host countries of UNU, particularly Japan. In 1999, UNU also started new activities, including concrete projects related to integrated capacity-building in water management and the pilot phase of the UNU International Courses (UNU/IC).

2. The mission of the University is "to contribute, through research and capacity building, to efforts to resolve the pressing global problems that are the concern of the United Nations, its peoples and Member States".

3. The four key roles that are defined in the charter of UNU are to be an international community of scholars; to form a bridge between the United Nations and the international academic community; to serve as a think-tank for the United Nations system; and to contribute to capacity-building, particularly in developing countries.

4. The University focuses its work within two thematic areas: (a) peace and governance and (b) environment and sustainable development. Within these areas the University undertakes research and training and develops networks on a broad range of issues: from information technology to inequality to climate change to preventing humanitarian emergencies. The results of the University's work are disseminated through high-level panels, conferences, workshops, books, journals, newsletters and the Internet.

Strategic plan

5. While 1998 was a year of evaluations and taking stock, 1999 was characterized by strategic planning. This involved assessing the context facing the United Nations in the twenty-first century and identifying important issues where understanding was lacking or not yet adequate and where UNU work would have the greatest impact. More practically, it involved re-orienting academic activities and strengthening the capacity to undertake them. The strategic plan establishes a set of institutional goals in order to assess performance and to help assure the quality of UNU research and capacity-building activities.

Governing Council

6. The Governing Council, the governing body of UNU, held its forty-sixth session at UNU headquarters in Tokyo, from 29 November to 3 December 1999. Its deliberations focused on four main topics: reviewing the year's activities; discussing and adopting the strategic plan for the University for 1999-2002; and approving the

programme and budget for the biennium 2000-2001. The Council also reviewed the progress made in implementing the recommendations of the external evaluations and in developing a number of new UNU programmes.

Work areas and 1999 highlights

Peace and governance

7. The sequence of conflicts and developments in Kosovo, East Timor and Chechnya provided complex challenges for the international community. Whereas the referendum in East Timor was undertaken and supported by the United Nations from the beginning, the Kosovo conflict may well be looked at as a defining moment in international affairs — when allies intervened for humanitarian reasons and without a mandate from the Security Council. UNU analysed the normative, operational and structural implications of the Kosovo crisis for the way in which to understand and interpret world politics.

8. Modern warfare is increasingly characterized by conflicts within States. Understanding the causes of such conflicts and the political economy of preventing complex humanitarian emergencies has been a priority for UNU.¹ Recent work has also looked at the roles different types of actors (multilateral, regional, national and non-governmental organizations) can contribute to the process.

9. Recent UNU work makes specific proposals that a new global message and a new institutional set-up are required under the present international circumstances — one where the gains from liberalizing world markets must be carefully balanced with the maintenance of world peace, global economic stability, human development, and the sustainable management of the world's resources.

Environment and sustainable development

10. UNU has assembled as much data on inequality as can be found into the United Nations Development Programme (UNDP) World Income Inequality Database (WIID).² UNU analysis highlights that increases have taken place in most countries around the world and that those increases in inequality are a threat both to sustaining economic growth and to global efforts to reduce poverty.

11. There is increasing concern that information is becoming a factor, like income and wealth, by which countries are classified as rich and poor. Overall, the use of information technology is so widely spread in the world economy that no single country can ignore any longer the need to invest in these technologies if it wants to improve the standard of living of its citizens. Developing countries need to formulate national information technology strategies to promote the use of these technologies.

12. Although a complex mesh of interrelated processes affect the global environment, United Nations agreements and treaties tend to focus on one specific issue. In order to assist in the development of a coordinated approach to environmental policy, UNU convened a major international interlinkages conference on synergies and coordination between multilateral environmental agreements in July 1999.

13. Another major study focused on the implications of environmental regulation on the competitiveness of polluting industries within the European Union and nine newly industrializing countries. In particular, it traced the diffusion of more environmentally sustainable technologies over time, where this has occurred.

Knowledge networks

14. UNU launched a Zero Emissions Forum, which brings together representatives from business, Government and the scientific community to promote a development model in which all industrial inputs can be converted into final products.

15. The University is developing a major new networking activity on strengthening the sustainability of land use and improving living conditions in dry areas from the Sahara to Central Asia. This activity has received strong support from a number of countries, including China, the Islamic Republic of Iran and Tunisia.

16. The year also saw the formal launch of the College of Research Associates by the UNU Institute for Natural Resources in Africa (UNU/INRA), a network of researchers and institutions in Africa focusing on natural resource management. The successful UNU Food and Nutrition Network, coordinated from Cornell University, initiated a major new programme focusing on sub-Saharan Africa.

Capacity-building

17. UNU/IC completed its pilot phase in 1999 and the global seminars have been expanded to an increasing number of locations around Japan, from Hokkaido to Okinawa. 1999 also witnessed the renewal of the Kirin fellowships programme. UNU started its formal collaboration with the Management and Coordination Agency in the Prime Minister's Office of Japan in 1999 in organizing the Ship for World Youth.

18. The University provided fellowships to 119 young scientists, mostly from developing countries, thus helping to strengthen institutional capacity. In addition, the University carried out over 40 short training courses on issues ranging from software technology to water management to sustainable use of natural resources.

19. UNU is putting great effort into developing and applying innovative methodologies for "integrated capacity-building" — capacity-building based on community-level, multi-stakeholder participation and greater equity in the North-South partnership.

Dissemination and public lectures

20. UNU is making particular effort to increase awareness and understanding of the work of the UNU and the United Nations system, by developing a system of panels, workshops and seminars to discuss issues of topical interest in New York and Geneva. In particular in 1999, UNU highlighted the pressing issues associated with water, environment and hunger on World Day for Water (22 March), World Environment Day (5 June) and World Food Day (16 October) respectively. UNU also had an extended exhibition on peacekeeping at the UNU Centre.

21. The work of the University led to the publication of 24 new books in 1999, of which UNU Press published 19 (see annex V). The University had 101 articles in scholarly and popular journals and 132 articles printed in the press.

22. The University also hosted lectures by such distinguished speakers as Kofi Annan, Secretary-General of the United Nations, Mark Malloch Brown, UNDP Administrator and Gro Harlem Brundtland, head of the World Health Organization (WHO).

Finance and administration

23. Four task forces established by the Rector — a financial management, personnel policy, information and communications technology, and building and facilities management — reported their findings. The implementation of task force proposals to improve these four key areas will follow in 2000.

24. The present report does not provide an exhaustive account of all the University's academic work (see annex I for statistical information on all UNU work). Instead, the text provides greater detail on some of the University's innovative work areas in 1999.

Chapter II The research work of the University: issues and key findings

A. Changing global context

25. The world has recorded improvements on many fronts since the United Nations was created in 1945. Examples include the process of decolonization, the occurrence of few major wars despite the risks posed by the cold war and greater improvements in human livelihoods than in any other period of history. However, progress in human development has been very unevenly spread. It is a paradox that in this era of globalization, for many people on the planet the United Nations goals of peace and prosperity remain as elusive as ever. There has been a steep rise in the number of local wars, global inequality continues to rise, about 1.3 billion people are estimated to live in severe poverty and there is increasing concern about the unsustainable use of natural resources.

26. In trying to resolve the many and serious global challenges, from poverty to bad governance to humanitarian emergencies, there is increasing emphasis on the critical contribution of knowledge. This is particularly the case at a time of great change in a globalizing world and as the world shifts towards a knowledge-based global economy. Knowledge is also important for the United Nations system. Without research, many development and peacekeeping interventions would be much less successful. The Secretary-General has stressed in different speeches the importance of knowledge and has called upon UNU to play a leading role in identifying key issues and then to motivate people and mobilize the resources necessary to find solutions to pressing global problems.

27. The present chapter focuses on UNU work on some of the pressing problems at the turn of the century. The work is clustered into the broad and interrelated thematic areas of peace and governance and environment and sustainable development.

B. Peace and governance

"The research programmes of the institutions of the University shall include, among other subjects, coexistence between peoples having different cultures, languages and social systems; peaceful relations between States and the maintenance of peace and security; human rights; ... and universal human values related to the improvement of the quality of life." (UNU charter, article I.3)

Kosovo

28. The sequence of crises in Kosovo, East Timor and Chechnya has put into question the roles of the major actors of world politics. The Kosovo crisis in particular has raised major questions about the underlying principles of international order and global governance. The United Nations was rendered virtually inoperable in a situation in which the Security Council members were split over the geostrategic and normative dimensions of how to deal with Kosovo's relations with Serbia. Meanwhile, the North Atlantic Treaty Organization (NATO), a military defence alliance, used military power to force a sovereign State into compliance

with international humanitarian norms. In addition to large numbers of internally displaced persons, several hundred thousand refugees threatened to destabilize an already fragile region. The conflict has the potential to redefine the relationship between regional security organizations and the United Nations, between major powers in East and West — and within those camps. It may also call into question the unipolar context that has prevailed since the end of the cold war.

29. The normative, operational and structural questions that are raised by the Kosovo crisis are likely to have long-term consequences for the way in which we understand and interpret world politics.³ For instance, can the Security Council veto now effectively be circumvented to launch selective enforcement operations? How can the humanitarian imperative be reconciled with the principle of State sovereignty — are we witnessing the end to absolute principles in the international legal framework and, if so, at what cost? Under what conditions do such absolute principles lose their legitimacy? A UNU study to be published soon offers interpretations of the Kosovo crisis from numerous perspectives: the conflicting parties, members of the NATO alliance, the immediate region surrounding the conflict and from further afield. These country perspectives are followed by scholarly analyses of the implications of the Kosovo crisis for world politics and the relationship between and among international organizations, regional organizations, State actors and individuals.

Conflict prevention — roles and actors

30. In its most general form, conflict prevention refers to actions that affect the process and outcome of an evolving dispute or crisis between two or more actors.⁴ Preventive efforts are undertaken by actors at all levels — non-State actors, non-governmental organizations, States and regional and international organizations. The message of those involved in the theory and practice of conflict prevention is as clear as it is obvious: compared with conflict management, it seems less costly in political, economic and human terms (a) to prevent tensions from escalating into violent conflict; (b) to employ early warning mechanisms to allow the international community to monitor relations between and within States; and (c) to facilitate outside involvement before tensions become intractable. Thus, instead of conflict management, "peace management" should be the central task of international and regional organizations and others involved in crisis management activities.

31. The nature of such interventions is best seen as a continuum, ranging from traditional preventive diplomacy to its more forceful descendants. Recent international developments have led to fundamental changes in the nature of conflict prevention. Before the end of the cold war, preventive efforts were generally performed through the offices of the Secretary-General, and peacekeeping missions were sent to monitor ceasefire arrangements between two warring States. With the reduced importance of traditional ideologically based rivalry, the ability for individual States or State coalitions to intervene in the conflicts of others has increased dramatically. And, with the loosening of ideological bonds and the erosion of strong State centres backed by foreign Governments, the likelihood of intra-State conflict has risen, especially conflict over territory and identity.

32. If an activity can preserve peace and prevent the eruption of conflict, any activity by any actor is welcome. Currently, numerous actors at various levels are involved in many of the broader conflict prevention tasks outlined above. How

would the proposed division of labour between the United Nations, regional organizations and civil society work? UNU work examines the conceptual debate of conflict prevention in this international environment and the requirements for effective conflict prevention through cooperation between a variety of non-State, State and intergovernmental actors.

New roles and functions for the United Nations and Bretton Woods institutions

33. In the immediate aftermath of the Second World War, and with the great depression fresh in everyone's memory, the "Keynesian message" — full employment, correction of market failures, and creation of world regulatory institutions to ensure monetary stability, development assistance, trade promotion and technical assistance — provided a clear inspiration to the architects of the United Nations and the Bretton Woods institutions. However, over the subsequent decades, the world has undergone fundamental changes. The last decade has seen especially rapid change: the cold war ended, the Soviet bloc dissolved and apartheid collapsed. Meanwhile, national economies have become ever more closely integrated through flows of trade, finance, investment and people, and through the revolution in communication technology.

34. Much of this change is welcome. However, globalization's benefits have largely bypassed most African and transition economies. The volatility of commodity prices, and their long-term downward trend, has increased under the new orthodoxy. Open economies are more vulnerable to volatile capital flows and instability in their exchange rates, problems whose resolution requires international action. These forces have fuelled a rise in income inequality, making it less easy to achieve poverty reduction through economic growth. International migration (often as a consequence of war or natural disaster) and capital flight from the poorer or less stable regions have increased. Thus, though the world economy has grown, the unbalanced nature of its growth has left 1.3 billion people in dire poverty.

35. By and large private actors, and especially the multinational corporations with their immense resources, drive the current global system. As such, this lacks an explicit political ideology to maintain peace, promote social justice and ensure minimum basic living standards. It is also biased against collective institutions and public action at both the national and international levels. The sharp rise in the number of humanitarian emergencies and currency crises, as well as the growing regulatory gap in the areas of environmental protection, the multilateral trading system and labour standards, are good examples of this governance vacuum. To counter this, recent UNU work makes specific proposals for a new global message and a new institutional set-up to reflect the new global context. In this new agenda, the gains from liberalizing world markets must be carefully balanced with the maintenance of world peace, global economic stability, human development and the sustainable management of the world's resources.

Bureaucratic structure and performance: new evidence from Africa

36. Governmental administrative competence is an important factor for explaining the differences in growth among developing countries. In particular, there is a longstanding argument that weak institutions have contributed to low economic performance in sub-Saharan Africa. In studies of bureaucratic performance in Africa the empirical evidence has been largely limited to case studies. The UNU/AERC survey of bureaucratic structure and performance in 20 countries in Africa — the first time that such systematic work has been undertaken in the region — generated two major achievements:

(a) The new data have enabled the construction of a significantly larger data set on bureaucratic structure and performance (now comprising 50 countries globally) for statistical analysis. In particular, four structural issues emerged as significant in the regression analysis and warrant further investigation:

(i) The level of civil service salaries as a proportion of private sector levels;

(ii) The influence core economic agencies have in formulating economic policies;

(iii) The depth and proportion of political appointments in government service;

(iv) The status and opportunity of a career in the civil service;

(b) The findings raise a number of interesting issues relating to the literature on political institutions in Africa. Although the findings do make for grim reading in some cases, particularly regarding corruption, the survey also highlights that some countries, such as Botswana, Mauritius and Tunisia, perform well. Certain countries, such as Botswana, Eritrea and the United Republic of Tanzania, have been able to substantially improve their performances in different structural characteristics and their overall performance. In particular the survey highlighted that there has been a significant improvement in the relationship between bureaucracy and the private sector in Africa. On a more worrying note, however, it also showed that some countries lack ownership of economic policy formulation.

C. Environment and sustainable development

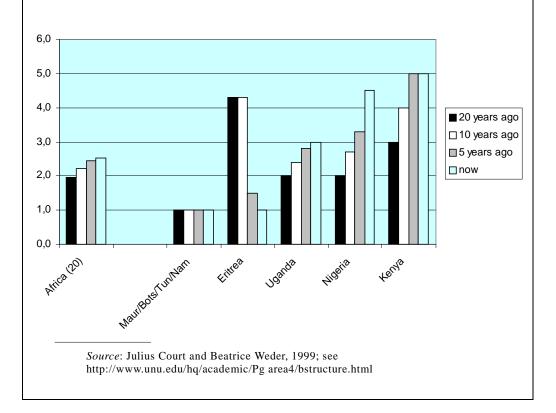
"The research programmes of the institutions of the University shall include, among other subjects ... economic and social change and development; the environment and the proper use of resources; basic scientific research and the application of the results of science and technology in the interests of development ..." (UNU charter, article I.3)

Global environmental governance

37. There is increasing acceptance of the fundamental gap between current institutions of global governance and those mechanisms used to cope with pressing global problems (i.e., economic crises, environmental degradation and poverty). In particular, UNU research has emphasized that to protect and preserve the global environment requires a holistic approach that better integrates environmental problem-solving at both the national and the international level. Developing countries in particular are at a disadvantage when dealing with multilateral diplomatic issues owing to a lack of well-established organizational and academic infrastructures.

Box 1 Bureaucratic corruption in Africa, 1978-1998

The survey investigated how much tips and bribes add to basic salaries in the 20 African countries (see chart below). A rating of 1 essentially means no tips and bribes. A score of 5 means tips and bribes add around 90-100 per cent to salaries. The level of bribery seems to have increased for the Africa sample over the last 20 years. However, the diversity in performance is marked: in Botswana, Mauritius, Namibia and Tunisia, bribery adds very little to civil service salaries. At the other end of the spectrum, however, civil service bribery has increased significantly and even become endemic in some other African countries. It is also worth noting the dramatic improvement in performance of Eritrea; this is an important case for further investigation.



38. The typical approach adopted when analysing the relationship between the environment and trade illustrates this point well. Inconsistencies among the Commission on Sustainable Development, the United Nations Environment Programme (UNEP), the World Trade Organization (WTO), and United Nations Framework Convention on Climate Change, for example, become apparent when States enter into negotiations in the Conference of the Parties to the Convention, managed by Convention secretariat, and the Millennium Round, managed by WTO.⁵ UNU initiated an innovative series of studies focusing on the interlinkages between trade and the environment. In addition, these findings were used in four training seminars during 1999, in collaboration with the United Nations Institute for Training and Research (UNITAR), including for the delegates of the Missions to the United Nations in New York and Geneva.

39. The most important aspects of this issue are the synergies and interlinkages between multilateral environmental agreements. Although a complex mesh of interrelated processes affect the global environment, United Nations agreements and treaties tend to focus on one specific issue. In order to create awareness at the public, governmental and intergovernmental levels and to assist in the development of a coordinated approach to environmental policy-making, UNU and its partners convened an International Conference on Synergies and Coordination in July 1999.⁶

Box 2

People, Land Management and Environmental Change

The objective of the project on UNU People, Land Management and Environmental Change (UNU/PLEC), one of the University's flagship projects, is to develop sustainable and participatory approaches to biodiversity conservation within agricultural systems. This work is carried out through a network of locally based research clusters that have been established in West Africa (Ghana and Guinea), East Africa (Kenya, Uganda and the United Republic of Tanzania), Asia-Pacific (China, Papua New Guinea and Thailand), and tropical America (Brazil, Jamaica, Mexico and Peru). PLEC participants assemble agrodiversity and biodiversity databases and prepare substantive reports in the areas of biodiversity, agrodiversity, populations, and management regimes at demonstration sites. (See PLEC home page: http://www.unu.edu/env/ plec/.)

Sustainable development scenarios

40. The scope of sustainable development has broadened to include issues such as climate change, biodiversity, population and demographic transition, uncontrolled urbanization, rapid industrialization, wasteful lifestyles, natural resources depletion, degradation of agricultural and forestry land. UNU will continue to provide a forum to examine these highly complex and interrelated issues, focusing mainly on developing countries.

41. These issues are sometimes best addressed in terms of analysing alternative scenarios. These can help to foster structured debate on global trends and on the

opportunities for, and threats to, sustainable development. The scenarios are not meant to be projections of the future; they are hypothetical sequences of events constructed for the purpose of focusing attention on causal processes and decision points. Scenarios are descriptive, not prescriptive. UNU brought together representatives from the most active centres of global modelling, together with Intergovernmental Panel on Climate Change (IPCC) scientists, to take stock of recent advances in knowledge regarding climate change and human responses to it in the context of evolving multilateral negotiations.

42. The UNU contribution consisted of a presentation on the preliminary findings of a major study entitled "Sustainable development framework: the case of China". The study, which focuses on issues of environmental sustainability in China, takes into account implications of global climate change at the national level. It represents a major outcome of a project UNU carried out in collaboration with Chinese scholars and officials from seven institutions. It has been distributed widely in China and a publication in English is now available. The framework is now being used for further projects on Brazil, India and Indonesia.

Box 3

Global Environment Information Centre

The Global Environment Information Centre (GEIC) is a joint initiative of UNU and the Environment Agency of Japan. GEIC is concerned with promoting the nexus between information development and environment. It has been very effective in mobilizing nongovernmental organizations and in promoting greater awareness of environment issues among the public. In this regard, it played a central role in coordinating activities for World Environment Day 1999. Being based in Japan, GEIC plays a role in bringing information on Japan and environment to the world, and vice-versa. It also works to find ways in which the Internet may be useful to people in contemplating environmental issues. Particularly valuable sets of products are the original data sets housed at the Centre. (See GEIC home page: http://www.geic.or.jp.)

Environmental monitoring and governance in coastal hydrosphere

43. The UNU programme on coastal hydrosphere focuses on the issues pertinent to protection, preservation and sustainable development of the coastal hydrosphere in the Asia-Pacific region. The project, undertaken with the support of Shimadzu Corporation, involves the well-established network of the nine research laboratories (China, Indonesia, Japan, Malaysia, the Philippines, the Republic of Korea, Singapore, Thailand and Viet Nam). The year 1999 saw the renewal of the support from Shimadzu for an additional three years. UNU collaborates with universities, research institutions, local Governments and private companies to implement this project. During 1999, the programme was joined by the University of Philippines (as a representative of the Philippines), the Ocean Research Institute of the University of Tokyo, the United Nations Educational, Scientific and Cultural Organization

(UNESCO), the International Society for Mangrove Ecosystems (ISME) and the Iwate (Japan) Prefectural Government.

44. A major international symposium was held at Tokyo on 9 and 10 February 2000 to discuss the impacts of pollution on coastal ecosystems, with a particular focus on endocrine disruptor compounds. It was found that the East Asian coastal areas are particularly at risk of pollution from land-based sources, which can be many and varied. Several animal species were shown to be adversely affected in the coastal areas. In this context, of most concern are the endocrine disruptor compound pollutants that are resistant to natural degradation processes and persist in the environment for a long time. Endocrine disruptor compounds include a broad range of chemicals that can interfere with the normal functioning of hormones in controlling growth, reproduction and body metabolism in humans and animals. Leading experts from several organizations presented their most recent research on the subject, including the Organisation for Economic Cooperation and Development (OECD), UNEP, the United States Environmental Protection Agency, the United States National Oceanic and Atmospheric Administration, the Chemical Industry Institute of Technology, the University of California at Davis, the National Institute for Environmental Studies of Japan, Japan Environment Agency, the National Institute for Resources and Environment of Japan and some Japanese universities.

45. The symposium also marked the launching of the next three-year phase involving the nine East Asian countries. The project will build the capacity in these countries to effectively monitor pollution in the coastal areas and link it to the management of pollution sources inland. Equally important, the project will develop cooperative research programmes to conserve the mangroves in the region. Such ventures are critical in protecting and preserving the coastal environment for future generations.

Environmental regulation, globalization of production and technological change

46. The principal objective of research⁷ is to provide a firmer basis for discussing the implications of environmental regulation on the competitiveness of polluting industries. The focus of the study is the major pollution-intensive industries within the European Union and nine newly industrializing countries. The work examines the changes in the competitive position of these industries over the past quarter century, particularly in relation to emerging producers among the newly industrializing countries. It analyses the impacts (both positive and negative) of environmental regulation on competitiveness and employment and focuses on the different responses of firms and industries to such regulation. Finally, it examines the factors that govern the development and diffusion of cleaner technologies and the potential for, and obstacles to, the transfer of these technologies to the newly industrializing countries.

47. The first phase involves a preliminary analysis of the trends in the main "pollution-intensive" industries within the European Union. The second phase of the project involves detailed investigation of three key industrial branches (iron and steel, fertilizers and leather). Each of the branches analysed involves country case studies in several industrializing countries. A number of criteria have been utilized in selecting the case study countries: (a) they should be important exporters to the European Union, either in terms of the current level of exports or because they are rapidly growing exporters; (b) an attempt was made to ensure a regional spread of

case studies; and (c) where possible, countries with different levels of stringency in terms of their environmental legislation have been selected.

48. A major task of the project, which is still ongoing, is to investigate the development of the branch within the case study country. The main focus of these studies is the technology utilized in the industry, particularly regarding its environmental impact. The studies involve both static comparisons of the type of technology utilized by foreign subsidiaries compared with both the home country and with local firms, and comparisons between large, medium and small enterprises. An attempt is being made to trace the diffusion of more environmentally sustainable technologies over time where this has occurred.

Rising inequality in an era of liberalization and globalization

49. Since the late 1980s, the international community has increasingly made the eradication of poverty its foremost development objective. Simultaneously, the Washington Consensus emphasizes macroeconomic stability, market liberalization, privatization and the use of market solutions in the provision of public goods. The new poverty focus, together with the Washington Consensus, makes large claims. Liberalization will promote the convergence of the living standards of the poorer countries with those of the most advanced, thereby reducing world poverty. Moreover, it is claimed that the policies are, by and large, distributionally neutral, that the distribution of income is broadly stable over the long run and that there is only a weak link between inequality and growth. Thus, while ostensibly focusing on poverty, the approach is largely blind to inequality.

50. Too much of the debate, however, has been conducted with reference to inadequate data. To remedy this deficiency, UNU has assembled as much data on inequality as can be found. While the available data are imperfect, particularly for low-income countries, enough exists to assemble a picture of trends in relation to economic growth. This picture is not pretty: it shows rising inequality in 45 out of 77 countries. If one weighs these results by population size and gross domestic product (GDP)-purchasing power parities (PPP), these conclusions are strengthened, as inequality rose or stopped declining in nations accounting for 79 per cent of the population and 77 per cent of the GDP-PPP of the sample countries. While inequality fell in 16 countries, these include mainly small and medium-size nations whose total population and GDP-PPP comprise only 16 and 20 per cent of the total sample, respectively. In summary, while inequality tended to decline in the "goldenage" of post-war growth, it started to rise from 1980 onwards. The rise was universal in Eastern Europe and the former USSR, almost universal in Latin America, common in the OECD countries and frequent in Asia.

Box 4 World Income Inequality Database

The analysis of the data finds that the traditional causes of inequality (land concentration, urban bias, inequality in education) explain an important part of the variation in cross-country inequality. However, UNU/World Institute for Development Economies Research (WIDER) research suggests that the increase over time in inequality in two thirds of the countries in the WIID sample is generated by new factors. It argues that, in its rush to promote ill-designed privatization and premature financial and capital account liberalization (when regulatory capacity is weak), the Washington Consensus has contributed to rising inequality. Moreover, the decline in aid budgets is hardly conducive to the reduction of poverty and inequality. Pro-poor growth must be complemented by alternative structural, macroeconomic and redistributive policies. Certainly, rising income inequality makes it more difficult to achieve poverty reduction through growth alone. (See the World Income Inequality Database (WIID). web site http://www.wider.unu.edu/wiid/wiid.htm.)

Underdevelopment, transition and reconstruction in sub-Saharan Africa

51. Reconstructing Africa's war damaged economies is an urgent task. This is especially so in a group of countries, Angola, Eritrea, Ethiopia, Guinea-Bissau and Mozambique, which must also complete their economic and political transition from State socialism. Somalia, which shares their common history, must eventually be rebuilt. All of these countries must address their deep problems of underdevelopment and poverty. The challenges are therefore threefold: to overcome underdevelopment, to make the transition from State socialism and to reconstruct economies and societies.

52. Well-designed reforms can contribute to reconstruction and vice versa. But too often there is a mismatch between the reform and reconstruction programmes, and the ground for broad-based development is not secured. Aid is important, but success ultimately depends on the actions of three sets of national actors: communities, entrepreneurs and States. The problem is that communities are impoverished, private sectors are underdeveloped and State capacities are weak.

53. For communities, the main challenges are to deal with the immediate post-war humanitarian and security problems and, equally important, to accelerate programmes for longer-term poverty reduction. Turning to the second key actor, entrepreneurs, we can see that a new private sector is being created in countries attempting to overcome underdevelopment, to make the transition from State socialism and to reconstruct economies and societies following decontrol and privatization. Overcoming investor uncertainty is a key task; this can persist and limit investment despite a fall in actual country risks. Encouraging more private investment in agricultural marketing is especially important for food security and rural poverty reduction. Third, a developmental State must be constructed. This is a

set of democratically accountable institutions capable of effective policy design and implementation. The onus is therefore on democratic Governments to prove that they provide value for money to communities and entrepreneurs.

54. As a result of these challenges, and the sheer scale of reconstruction expenditures, fiscal deficits before grants are very high. Nobody seriously questions the principle of fiscal prudence but the fiscal policy conditionality of the International Monetary Fund (IMF) may be over-restrictive; certainly many other donor agencies believe that this is the case. This leaves many investments with high social returns on the shelf, implying slower growth and poverty reduction. A much longer time-frame is therefore necessary to evaluate fiscal policy in an economy under reconstruction.

Box 5 Priority Africa

Africa remains the greatest development challenge facing the world today. The Priority Africa home page provides cohesive system-wide information on UNU research, training and publications on Africa. It also has a "knowledge bank" of on-line documents and an extensive Internet links section to universities and development agencies working on African development. (See the UNU Priority Africa home page: http://www.unu.edu/africa/.)

Information technology and economic growth

55. A UNU study entitled "Information Technology, Productivity and Economic Growth: Implications for Economic Development" shows that in recent years the use of information technology in the production of goods and services has had a strong influence on economic growth in industrial and in newly industrialized countries. Computers and peripherals have accounted for 8-9 per cent of the annual GDP growth in the United States, 16 per cent in Finland, 19 per cent in Singapore and 32 per cent in the Republic of Korea. Case studies on the Republic of Korea and Singapore demonstrate that the political leaders of these newly industrialized countries have actively promoted the use of information and communication technology as a tool for economic development since the late 1970s. Admittedly, however, other developing countries seem to have neither invested in information technology nor benefited from such investments to the same extent as industrial countries. There is concern that information is becoming a factor, like income and wealth, by which countries are classified as rich and poor. To prevent this from happening, developing countries need to formulate national information technology strategies to promote the use of these technologies.

56. The study gives rise to the following conclusions on the components to be included in national information technology strategies.

(a) Investment in physical capital is a key factor in economic growth in both developed and developing countries. Investment in information technology correlates positively with economic growth in industrial countries, but this correlation is not statistically significant in developing countries. To be able to reap

the benefits from investment in information technology, developing countries have to build up a mature stock of physical infrastructure that enhances and amplifies the effects of information technology;

(b) Exporting firms in developing countries must adopt information technology to remain competitive in the world market. There are two relatively non-expensive ways for Governments in developing countries to promote the use of information technology:

(i) To eliminate the barriers to information technology use by lowering taxes, tariffs and other trade barriers on computer imports and by encouraging competition in telecommunications;

(ii) To become sophisticated information technology users themselves;

(c) The third component of a national information technology strategy is the education of employees. The study shows that all business firms as well as other organizations in the developed or developing countries will face the same challenge of transforming the workplace to make these organizations function efficiently in an environment of the fast diffusion of information technology;

(d) Training and education of consumers are important not only in providing skills for work and production but also in providing a sufficiently strong demand base for knowledge products.

57. Overall, the use of information technology is so widespread in the world economy that no single country can ignore any longer the need to invest in these technologies if it wants to improve the standard of living of its citizens.

Software technology

58. There is a need for education and training of software specialists and educators in developing countries owing to the rapid increase in the use of computers. The mission of the UNU International Institute for Software Technology (UNU/IIST), located in Macau, is to build up research, development and education capabilities in the area of software technology in developing countries. In 1999, UNU/IIST continued to pursue its applied research programme, which consists of three research projects and seven advanced development projects. All of the projects were established according to the needs of partner countries, and involve joint research with them on applying advanced software technology in the projects and, hence, in software systems for actual infrastructures.

59. UNU/IIST is one of the main research centres in developing and applying duration calculus in support of the design of real-time hybrid systems. Real-time systems are those in which timeliness is essential to correctness. They encompass all devices with performance constraints. Hard deadlines are performance requirements that absolutely must be met. A missed deadline constitutes an erroneous computation failure. Most real-time systems also interact directly with electric devices and indirectly with mechanical ones. One of the problems that arises with environmental interaction is that external events are frequently not predictable. Systems must react to events when they occur rather than when it might be convenient. The software for real-time hybrid systems is therefore more difficult to construct because it must concern itself with timeliness, robustness and safety. The research projects of UNU/IIST focus on the development and application of duration calculus.

Chapter III Networking activities

60. The UNU charter enjoins the University to bring together people, scientists, scholars and policy makers to confront persistent and emerging problems of concern to the United Nations. The globalization of research agendas and the rapid advances in information and communication technology have made networking critical to knowledge generation, education and outreach. UNU has been active in building and supporting networks that share knowledge on human security and development. The fact that UNU is a network of research and training centres (with links to associated institutions) and also that each functional unit of UNU has links to researchers and research institutions as well as professionals and policy makers also makes UNU a network of networks.

61. UNU is striving to invigorate its network of associated and collaborating institutions, prominent research groups, international organizations and industry that have similar objectives to UNU. For example, new agreements were signed with the African Economic Research Consortium (AERC) and UNDP among others (see annex II). In developing these links, UNU will give priority, at the institutional level, to universities/research institutions that have: (a) shared values — towards excellence, the goals of the United Nations and its Member States and developing countries; (b) substantive or academic commonality; (c) activities in an area of mutual concern; (d) the potential for multiplier effects; and (e) effective management in place. UNU is particularly aiming to strengthen links to other United Nations agencies (see annex III for existing links). It also hopes to strengthen its links to research and other related institutions, particularly those located in developing countries (see annex IV for existing links). Priority will be given to institutions in countries that have internal stability, democratic governance structures, sound development policies and a history of intellectual freedom with Governments that support higher education.

62. The present chapter outlines a few thematic areas where UNU is leading or participating in major networking activities.

Food and Nutrition Programme

63. The Food and Nutrition Programme, now coordinated from Cornell University, is one of the most established programmes of UNU. During 1999, the Programme maintained 6 major global projects and a number of minor ones, provided 15 fellowships for various kinds of advanced training and published quarterly issues of two journals. The projects under this programme are:

- (a) International Network of Food Data Systems;
- (b) International Iron Nutrition Project;
- (c) International Dietary Energy Consultative Group;
- (d) Multi-Country Growth Reference Study;
- (e) Global Initiative for Enhancing Institutional Capacity in Food and Nutrition: African Leadership Initiative (joint project with the International Union of Nutritional Sciences);

(f) Harmonization of Approaches for Setting National Dietary Standards.

64. The priority in 1999 was to work more effectively in strengthening capacity in Africa. A workshop in Capetown focused on the development of an African nutrition leadership initiative to strengthen and build up a cadre of nutrition leaders at the regional, national and local levels. Such leaders would be drawn from different fields, including health, agriculture, education and community development, and different sectors, including public, private and non-profit sectors. Two additional workshops are planned in 2000 for East and West Africa.

Zero emissions

65. The UNU zero emissions initiatives promote a development model in which all industrial inputs can be converted into final products, or where waste is converted into value-added inputs in another chain of production. At the end, the manufacturing line becomes a series of production cycles and recycling systems. In this way, industries may be organized into "clusters" within one single corporation, or in interdependent sets of industries, such that the whole discharges no waste in the air, soil or water. As a logical continuation of the Zero Emissions Research Initiative started five years ago, UNU launched the Zero Emissions Forum. The Forum brings together representatives from business, government and the scientific community in an international conference in Tokyo, with three major objectives in sight: research, capacity-building and networking.

66. UNU continued its cooperation with UNESCO in supporting the work of the UNU/UNESCO Chair on the Concept and Practice of Zero Emissions in Africa at the University of Namibia in Windhoek. The Chairholder presented a report on the progress made in developing the African network at the UNESCO World Conference on Science held at Budapest in June 1999.

Reversing land degradation

67. Continuing a series of workshops, UNU launched its programme to focus on land degradation issues faced in two priority ecosystems: deserts and mountains. This programme involves a geographically broad network of researchers and scientists and several international agencies, including UNESCO, the International Centre for Agricultural Research and Development in Dry Areas (ICARDA), UNDP and UNEP. The programme activities focus on water management and biodiversity conservation issues within the broader umbrella theme of land degradation.

68. The network convened at the edge of the Sahara at the Institut des Régions Arides in Médenine, Tunisia, to discuss water management issues of relevance. The major outcome of the meeting was a set of observations by the network members:

(a) In recent years, water resources issues have become a foremost item on the international and regional agenda. Increased stresses on limited global freshwater resources owing to population and industrial growth are part of the reason for this increased interest;

(b) It is important to define long-term sustainability of water resources — there is a need for integrated management of natural resources to achieve this sustainability. The integrated management schemes should ideally operate on both

top-down and bottoms-up approaches. This may be achieved through an interdisciplinary approach that explicitly involves those who could be impacted by implementation of such approaches;

(c) To successfully manage the water and natural resources, social, institutional, economic and technological barriers have to be overcome. In particular, the socio-economic aspects should be dealt with through a participatory approach that engages the general public and interested citizens. In this respect, it is very important to educate the public in conservation of natural resources through capacity-building programmes.

69. The next meeting of the network is planned for Uzbekistan in autumn 2000.

Global development network

70. UNU is also contributing to a major networking initiative, the Global Development Network, which is an emerging association of research institutes and think tanks whose goal is to generate and share knowledge about development. The Global Development Network seeks to facilitate networking and to create products that will build research capacity and help researchers transfer knowledge to policy makers. The primary goal, to generate and share knowledge related to development, is very close to the mandate and work of UNU.

71. The University contributed to the first global meeting at Bonn in December 1999. The next global meeting will be held at Tokyo in 2000 and the UNU Centre is looking forward to making another contribution towards this valuable initiative.

Follow-up of the World Conference on Higher Education

72. UNU continued to work closely with UNESCO in the follow-up of the 1998 World Conference on Higher Education. The Rector serves as a member of the International Follow-up Committee for the Conference. Related to the follow-up activities, the University signed an accord with UNESCO in April 1999 for the establishment of a Mediterranean UNESCO/UNU network and chairs on water resources, sustainable development and peace involving the participation of universities, cities and economic actors. The network is based at the University of Nice-Sophia Antipolis. In October, UNU and UNESCO agreed to establish a UNESCO/UNU Network on innovation to be based at the Polytechnic University of Catalonia which will involve UNESCO Chairholders in efforts to foster the realization of the recommendations of the Conference.

Chapter IV Capacity-building

73. As outlined in the UNU charter, the main components of capacity-building efforts are threefold. First, UNU aims to support the growth of vigorous academic communities in developing countries in order to alleviate the intellectual isolation of scholars and institutions of higher learning. The objective is to enable institutions to carry out high-quality research and to train a new generation of scholars and scientists. Second, it assists young scholars to participate in research. Third, it provides interdisciplinary training for national policy makers and international practitioners. Recognizing that training needs are vast and the University's resources are very limited, the UNU tries to achieve a multiplier effect in its training efforts by focusing on training the trainers, research leaders and policy decision makers. UNU is trying to develop new, more effective methodologies on "integrated capacity building" and to more generally expand the training activities of UNU. New in 1999 were the expansion of the global seminars in Japan and the successful completion of the pilot international courses as well as the development of a new framework for integrated capacity-building.

Fellowships and internships

Fellowships

74. A total of 119 fellowships were awarded to scientists from different parts of the world to carry out studies in the following fields:

- (a) Software technology at UNU/IIST in Macau (55);
- (b) Applied human nutrition at the University of Nairobi (3);
- (c) Biological diversity at the University of Gent in Belgium (8);
- (d) Biotechnology at various Latin American institutions (10);
- (e) Fisheries training at the Marine Research Institute in Iceland (9);
- (f) Training in computer applications for natural resources in Africa (8);
- (g) Training in plant tissue culture techniques (10);

(h) Food and nutrition at the Central Food Technological Research Institute in India (3);

(i) Food science and technology under the UNU-Kirin Fellowship Programme at the National Food Research Institute in Japan (5);

(j) Production and use of food composition databases at the Agricultural Research Council, Pretoria, under the International Network of Food Data Systems (4);

(k) Geothermal energy at the National Energy Authority in Iceland (15);

(1) Remote sensing technology at the Instituto Nacional de Pesquisas Espaciais in Brazil (7).

Internships at UNU institutes

75. A number of UNU institutes offer doctor of philosophy (Ph.D.) internships in issue areas relevant to their work. The UNU Institute of Advanced Studies (UNU/IAS) offers 10 fellowships annually to carry out research related to the theme of eco-restructuring. The UNU Institute for New Technologies (UNU/INTECH) collaborates with the Maastricht Economic Research Institute on Innovation and Technology (MERIT), a division of the University of Maastricht, to jointly offer a Ph.D. programme on the policy and economic dimensions of technical change. UNU/WIDER offers six-month internships on topics in development economics related to the Institute's research programme.

Training programmes

Development and application of software technology

76. UNU also devotes itself to capacity-building for developing countries in the area of software technology. Building upon the curriculum development project, initiated in 1996, UNU started the University Development Project, which aims to strengthen all aspects of computer science teaching in universities in developing countries. Many of these universities suffer not only from a serious lack of resources, including basic text books and teaching materials, but also in many cases from isolation from the international academic community: not only do they tend to have very little money available for international travel, but electronic connections via the Internet are often prohibitively expensive and unreliable, when they exist at all. This makes it very difficult for the universities to keep abreast of advances in the subjects they teach, particularly in a field such as computer science, which changes so rapidly.

77. Under the University Development Project, UNU is trying to alleviate this situation by arranging for (generally young) computer science lecturers or professors from universities in developing countries to learn new courses at partner universities in industrialized countries, at the same time providing them with the supporting course materials. Upon their return to their own universities they use the knowledge they have gained, together with the supporting course materials, as the basis for improving and updating existing courses or introducing new courses into the teaching curriculum of their own university.

Leadership

78. UNU launched its third leadership programme, on leadership in conflict resolution, from September to November 1999. The programme was structured in three modules: theoretical instruction from the academic community; experimental learning through interaction with leaders and professional experts; and practical training through field studies. Some 31 leaders gave lectures as well as interacted with the participants in discussion sessions. About 45 participants from 40 different countries participated in the programme.

Natural resources in Africa

79. A goal of UNU is to assist institutions in Africa in producing well-trained, well-equipped and motivated individuals capable of developing, adapting and

disseminating technologies that promote sustainable use of the continent's natural resources. One of the main activities was the international training course on plant tissue culture, held at the Department of Botany, University of Ghana. The objective was to provide intensive training in plant tissue culture technology to researchers, trainers and technologists from West and Central Africa. Another important activity, held at the Computer Science Department of the University of Yaoundé, was a training programme in computer applications for managing natural resources in Africa. The objective was to equip African academics and research scientists with skills needed for the analysis of natural resources and to better inform public policy.

Application of biotechnology

80. The UNU biotechnology programme addresses pressing human, animal and plant health problems. Projects are coordinated by the UNU Centre and are administered through the UNU Programme for Biotechnology in Latin America and the Caribbean (UNU/BIOLAC) at Caracas. As in the past, the major focus of the programme in 1999 was in promoting academic exchanges by providing fellowships for research attachments at the leading biotechnology laboratories primarily based in the region and in organizing courses in different topics at the leading biotechnology institutions in Latin America. Many young scientists and researchers participated in the courses. Work in 1999 concentrated on supporting two programmes: a brucellosis research network and a tuberculosis research network.

Geothermal energy

81. The year 1999 marked the twenty-first annual session of the UNU Geothermal Training Programme (UNU/GTP), undertaken in cooperation with the Government of Iceland. Fifteen UNU Fellowships were awarded to scientists and engineers from China (2), Costa Rica (1), El Salvador (1), Ethiopia (2), the Islamic Republic of Iran (2), Jordan (2), Kenya (1), the Philippines (1), Poland (1) and Tunisia (2). The Fellows were trained in the following specialized courses: borehole geophysics, chemistry of thermal fluids, drilling technology, environmental studies, geophysical exploration, geothermal utilization and reservoir engineering.

Fisheries

82. Another activity in Iceland was the second session of the six-month-long fisheries training course. This year the number of participants increased from six to nine. Of these, six came from Africa, two from Asia and one from South America. After an eight-week introductory course, four fellows specialized in fisheries policy and planning, three in quality management of fish handling and processing and two in fishing gear technology.

Peace and governance

83. As part of our training mandate on issues of peace and governance, UNU held a series of seminars, based on the findings of research projects, at the United Nations Headquarters in New York. These focused on ethics and international affairs; peacekeeping and peace-building in Africa; and rising and fading powers: international order in transition. The programme also organized a training of trainers seminar on early warning and prevention measures at the United Nations Staff College at Turin, Italy.

Training courses in Japan

84. In addition to the training and capacity-building activities carried out under the UNU training and fellowships programme, a number of new initiatives were undertaken in Japan, including the UNU International Courses, the UNU global seminar held at Okinawa, the Yutaka Akino Memorial Initiatives and the Ship for the World Youth Programme.

UNU International Courses

85. UNU/IC⁸ completed its pilot phase in 1999 with an attendance of 40 participants, 20 of whom, from developing countries, were awarded UNU fellowships. UNU/IC is meant for a select group of postgraduate students and professionals who wish to pursue careers in international fields in public-service or private organizations, including the United Nations, multinational corporations and non-governmental organizations, as well as national foreign service organizations. The courses focused on the following subjects: the United Nations system: structure and activities; environment and sustainable development; human rights: concepts and issues; and international trade and dispute settlement. The pilot courses were successful, and UNU/IC will be regularly once a year. Preparations are now under way for the next regular round of UNU/IC, to be held from 15 May to 23 June 2000.

Global seminars

86. The UNU global seminars, held annually, are intended to bring about a better understanding of the United Nations and global issues among young people living in Japan. Three sessions of the global seminars were held in 1999. The Shonan session (the fifteenth since its inception in 1985) focused on the theme "Globalization and human development: towards the eradication of poverty". The Kobe session (the fifth session since its inception in 1995) was held in collaboration with the Kobe International Cooperation Centre on the theme of "Security in the twenty-first century". Since the global seminars have been very popular and are considered important in increasing the University's visibility in the main host country, the UNU Centre decided to organize such seminars in several other parts of Japan. The inaugural Okinawa session took place at Naha, Okinawa, in December 1999 on the theme "Environmental issues: local, regional and global dimensions". Starting from 2000, additional sessions will also take place at Shimane and Hokkaido.

The UNU Yutaka Akino memorial initiative

87. The Government of Japan contributed 100 million yen to UNU in memory of Yutaka Akino, who was killed while on active service in Tajikistan. The donation will be used to support four separate activities: a new five-year research project focusing on Central Asia; the UNU/IC options on "Armed conflict and peacekeeping" in 2000 and "International cooperation and development" in 2001; to provide financial support to promising UNU/IC participants interested in working at United Nations organizations as interns; and for an annual UNU global seminar, the Hokkaido session, for three years.

Ship for World Youth programmes

88. UNU started its formal collaboration with the Management and Coordination Agency in the Prime Minister's Office of Japan in 1999 in organizing the Ship for World Youth. The purpose of this programme is to foster the spirit of international cooperation and the competence to practice it as well as to promote friendship and mutual understanding between youth of Japan and youth from other parts of the world. Participants take part in seminars and group discussions on global issues, as well as in various other activities, on board the ship the *Nippon Maru* and interact with young people and political leaders at many different ports. Two Ship for World Youth programmes were carried out in 1999, each for about two months, with a total of 120 Japanese participants and 144 foreign participants.

New approaches: integrated capacity-building

89. Unfortunately, donors have a rather weak record in providing effective capacity-building services, which have often been fragmented, supply driven, top-down and led by outside experts, usually from developed countries. To try to remedy this situation, UNU is putting great effort into developing and applying innovative methodologies for integrated capacity-building — capacity-building based on community-level, multi-stakeholder participation and greater North-South partnership.

90. The integrated approach has been pioneered by the UNU International Network on Water, Environment and Health (UNU/INWEH) and is linked to development projects to manage urban water in sustainable ways. From a review of lessons from past efforts in both the North and South, done in partnership with the National Water Commission of Mexico, a conceptual model for sustainable capacity-building, dubbed the "four pillars framework", was developed. The framework is a visual way of gathering all of the capacities needed for sustainability at the community, state and federal levels and organizing them into categories or "pillars". The model can then be used as a matrix to identify gaps in existing capacities and to organize coherent, costed and integrated development plans for implementation.

91. The four interdependent pillars are:

(a) The capacity to educate and train, including community, adult and formal education;

(b) The capacity to measure and understand aquatic systems;

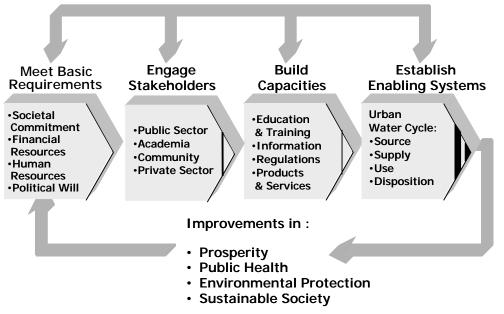
(c) The capacity to legislate, regulate and achieve compliance;

(d) The capacity to provide appropriate water infrastructure, services and products.

92. Initial reaction in Mexico suggests that this easily understood framework is an effective tool for building consensus, organizing coherent plans of action and improving equity in the assignment of roles, responsibilities and costs among stakeholders. The model appears to have broader applicability, suitable for use by all levels of government and for a wide range of issues beyond urban water stewardship, including watershed protection and marine coastal-zone management.

Box 6 Creating and maintaining a sustainable urban water cycle

The Sustainable Water Stewardship Process



Chapter V Dissemination

93. In order to enhance the impact of UNU work, the University disseminates its findings to academics, policymakers and the public. It aims particularly to promote the dissemination of scientific information and best practice to the developing world. The main mode for dissemination of research is through books, articles in journals, policy briefs and articles in the press. UNU is increasingly trying to disseminate its work in innovative ways, through CD-ROM, the Internet and video.

UNU Press

94. In 1999, UNU Press published a total of 19 new titles; of these, 15 titles were produced as regular sales items, while four publications were issued for free distribution. Two thirds of the sales titles published in 1999 were the direct result of research projects carried out by the University; the other five books were based on manuscripts submitted by outside scholars in areas related to the University's research. UNU Press continues to make every effort to price its books as reasonably as possible. On average, it charges less than half the price of some other scholarly publishers and one third of that of the larger university presses. In addition to UNU Press publications, other publishers published another five books stemming from UNU research projects during the year (see annex V).

95. In a sustained effort to distribute its publications as widely as possible in developing countries, UNU Press promotes and encourages the production of inexpensive reprint editions by local publishers. The following titles were issued in 1999, or are currently being produced, in the form of inexpensive editions by local publishers as co-publications with the UNU Press:

- (a) *The New Globalism and Developing Countries* (Association of South-East Asian Nations (ASEAN) countries);
- (b) International Finance and Developing Countries in a Year of Crisis (ASEAN countries);
- (c) In Place of the Forest (ASEAN countries);
- (d) China in the Twenty-first Century (ASEAN countries);
- (e) Conducting Environmental Impact Assessment for Developing Countries (India and South Asia);
- (f) Water for Urban Areas (India and South Asia);
- (g) Global Financial Turmoil and Reform (India and South Asia).

Box 7

"This most impressive book is a tremendous achievement. To produce a volume of this size as a collective effort, with a consistently high standard of writing, and with an appropriate mix of ideas and information, was itself a challenge: the editor and publishers have responded magnificently. ... This book follows equivalent compendia on Pacific Asia and Latin America: for once Africa is in no way the poor relation. ... No book can do much to solve the problems of African cities, but this one does a great deal to shed light on them. Its editor, contributors and publisher deserve hearty congratulations."

Source: Carole Rakodi, ed. "African Affairs" The Urban Challenge in Africa (1997).

96. Free distribution of UNU publications, including UNU Press books and CD-ROMs, continued on a regular basis, and several thousand copies of backlist titles were donated to libraries in developing countries through a joint effort with Book Aid International. Nine titles were translated into other languages, particularly into Japanese, and co-published with commercial publishers.

97. UNU was involved with the publication of several journals during the year, namely:

- (a) Food and Nutrition Bulletin;
- (b) Journal of Food Composition and Analysis;
- (c) Global Environmental Change Human and Policy Dimensions;
- (d) Mountain Research and Development;
- (e) Global Governance.

Public information

98. The other main channels of informing potential users about the University's work are brochures, newsletters, publications, catalogues, the Internet home page, public events and other promotion materials. The work of UNU was mentioned in the press 683 times in 1999.

99. World Day for Water. UNU contributed to a major media campaign to mark World Day for Water, 22 March 1999. It consisted of a news release on unsafe water, which was distributed to several hundred North American media outlets, and a series of 16 interviews with the Rector. The results included front-page coverage for the University worldwide — in *The Financial Times*, a major article in *Newsweek International*, extensive coverage on the British Broadcasting Corporation (BBC) Radio, and the worldwide distribution of an interview with the Rector by Associated Press (AP) Television. Stories on the AP News Wire and the Reuters wire were picked up by scores of daily newspapers around the world, including *The Boston Globe, The Guardian* (United Kingdom), and the *Hong Kong Standard*. 100. World Environment Day. To help celebrate World Environment Day, 5 June 1999, UNU — with major input from GEIC — organized a series of activities under the banner of "World Environment Day 1999 — Global Echo" (2-13 June 1999). The events included the UNU open house to introduce the University's efforts in addressing vital global environmental issues, and to provide information on UNU and other United Nations agencies in Japan. Also, various non-governmental organizations and national planning offices organized performances and events on environmental topics in this event. More than 10,000 people visited UNU during World Environment Day.

101. World Food Day. A media campaign, in conjunction with the World Bank, highlighted the work of UNU/INRA in the area of soil conservation on the occasion of World Food Day on 16 October. Prepared in the same way as the earlier media campaign, it consisted of a news release and a series of interviews with the Director of UNU/INRA. It, too, resulted in wide coverage of UNU/INRA and UNU in the print and broadcast media. Stories on the AP, Reuters and the Scripps Howard News Service wires were picked up by several major papers and online news services, and the Environment News Service carried a one-hour on-line chat with the UNU/INRA Director.

Public lectures

102. Among the major public lectures at the UNU Centre or the research and training centres and programmes were:

- (a) "A world financial authority" by John Eatwell, 2 February 1999, Helsinki;
- (b) "Globalization and the prospects for democracy and the welfare state", by Erik Allardt, 25 March 1999, Helsinki;
- (c) "Development: with a special focus on human security International Symposium on Development", by Masahiko Koumura, Minister for Foreign Affairs, Japan; Keizo Takemi, State Secretary for Foreign Affairs; Lincoln Chen, Executive Vice-President, the Rockefeller Foundation; Richard Jolly, Special Adviser to the Administrator, UNDP; Paul Collier, Director of Development Research Group, the World Bank; and Micah Cheserem, Governor, Central Bank of Kenya, 24 June 1999, Tokyo;
- (d) "Globalization with a human face", by Mark Malloch Brown, Administrator of UNDP, 4 August 1999, Tokyo;
- (e) "Crisis of development or crisis of globalized markets?", by Rubens Ricupero, Secretary-General of UNCTAD, 1 September 1999, Helsinki;
- (f) "The politics of United Nations peacekeeping, from Cambodia to Yugoslavia — United Nations Day", by John Sanderson, Former Commander of the Military Component of the United Nations Transition Authority in Cambodia (UNTAC); Satish Nambiar, Former Commander of the United Nations Protection Force (UNPROFOR); Jioji Konousi Konrote, Former Commander of the United Nations Interim Force in

Lebanon (UNIFIL); Yasushi Akashi, Former United Nations Under-Secretary-General for Humanitarian Affairs, 22 October 1999, Tokyo;

- (g) "Is rising income inequality inevitable? A critique of the transatlantic consensus", the UNU/WIDER annual lecture, by Tony Atkinson, 1 November 1999, Oslo;
- (h) "Japan's world role in the twenty-first century", by Kofi Annan, Secretary-General of the United Nations, 11 November 1999, Tokyo;
- "Africa's biopolicy agenda in the twenty-first century", the UNU/INRA annual lecture, by Calestous Juma, a Special Adviser to the Centre for International Development at Harvard University, 15 and 16 November 1999, Addis Ababa;
- (j) "Preparing for the worst: Can we give hope to victims in complex emergencies?", 1999 Fridtjof Nansen memorial lecture, by Gro Harlem Brundtland, Director-General of WHO, 17 November 1999, Tokyo;
- (k) "International development into the twenty-first century", by John Vereker, Permanent Secretary, Department for International Development, United Kingdom, 17 November 1999, Tokyo.

Electronic dissemination

103. The policy of making all UNU publications, informational as well as scholarly, available in electronic form was pursued systematically during the year. The UNU home page was updated on a continual basis. New sections, such as "Priority Africa", were added when appropriate. In addition, institutional news, information about academic activities and announcements of forthcoming events can easily be found. Links to other organizations provide a larger context. Some of the major initiatives were:

(a) The number of UNU Press books available in full text in the "Publications" section of the home page was increased significantly. Currently, over 100 individual titles as well as all the issues of the UNU *Food and Nutrition* bulletin to the end of 1999 can be downloaded free of charge;

(b) The CD-ROM entitled "Collection on critical global issues" produced in 1998 has been significantly updated. The new version contains over 200 publications in the field of environment, development, and food and nutrition;

(c) The "Food and Nutrition Library", a new CD-ROM project in the food and nutrition area, in cooperation with numerous international organizations and non-governmental organizations, such as the World Food Programme (WFP), the Food and Agriculture Organization of the United Nations (FAO), the German Agency for Technical Cooperation (GTZ)-German Appropriate Technology Exchange (GATE) and the Peace Corps, currently contains the full text of 260 publications that will be available free of charge in developing countries;

(d) An agreement with netLibrary, the world's largest on-line distributor of reference, scholarly and professional electronic books (eBooks) in the United States, will soon make it possible to buy UNU Press books in electronic form, in whole or in part, on the Internet;

(e) Electronic publication of the first issue of a tri-annual e-mail newsletter entitled "UNU Africa Research Observer", with brief reports and links to Web sites of UNU projects dealing with issues that concern the African continent;

(f) Establishment of a Japanese version of the main UNU homepage, designed specifically for easy access by users in the host country. In addition, the creation of a French-language "window" to the UNU home page, to be administered by the Paris office of UNU, has been initiated.

104. In many ways, the area of electronic dissemination presents the most exciting new opportunities for information dissemination. In the future, audio-visual approaches should be combined with electronic publications and other dissemination modalities to create a comprehensive multimedia policy. With a view towards the eventual establishment of an integrated multimedia operation that will make full use of the audio-visual capacities of the Internet, first steps were taken in the direction of providing such services as live Internet broadcasts and video-on-demand on the UNU home page.

Chapter VI Income, expenditure and staff

105. In 1999, the University received pledges to the Endowment Fund as well as operating and specific programme contributions. The University also benefited during the year from counterpart and other support, including cost-sharing support for the fellowships and other activities. In the biennium 1998-1999, the approved budget of the University was just under US\$ 59 million. Table 1 below provides a provisional estimate of actual income at 30 September 1999. The list of contributions to the University received during 1999 is outlined in annex VI.

Table 1

Income for 1998-1999 at 30 September 1999^a

(Thousands of United States dollars)

		Core f	lunds		_			
UNU unit	From endowment	Operating contributions	Miscellaneous income ^b	Subtotal	Specific programme contributions ^c	Total (gross)	Less ^d	Total (net)
UNU Centre	15 930	6 013	5 270	27 213	8 627	35 840	1 387	34 453
UNU/WIDER	4 536	153	252	4 941	646	5 587	555	5 032
UNU/INTECH	1 943	1 499	777	4 219	947	5 166	242	4 924
UNU/IIST	3 742	26	25	3 793	101	3 894	459	3 435
UNU/INRA	331	-	-	331	156	487	42	445
UNU/IAS	-	3 222	1 519	4 741	1 647	6 388	-	6 388
UNU/INWEH	-	1 387	406	1 793	240	2 033	-	2 033
UNU/ILA	-	500	612	1 112	250	1 362	-	1 362
UNU/BIOLAC	864	-	-	864	17	881	93	788
Total	27 346	12 800	8 861	49 007	12 631	61 638	2 778	58 860

^a The figures have not yet been audited.

^b Includes contributions for the UNU headquarters building, income from publications and funds carried forward.

^c Includes those to be received in 1999 and carried forward.

^d sum of reinvestment and investment management fees.

106. Table 2 below provides a provisional estimate of actual expenditure over the biennium 1998-1999 at 30 September 1999.

Table 2

Expenditure in 1998-1999: actual expenditure of 1998-1999 obligations and unliquidated obligations at 30 September 1999^a

(Thousands of United States dollars)

	Academ	ic activities		UNI	J personnel costs			
UNU unit	Core funded	Specific funded	Subtotal	Professional staff ^b	Administrative staff ^c	Subtotal	General costs ^d	Total
UNU Centre	4 599	5 680	10 279	5 078	6 817	11 895	6 696	28 870
UNU/WIDER	1 106	410	1 516	1 764	394	2 158	511	4 185
UNU/INTECH	443	930	1 373	1 209	819	2 028	556	3 957
UNU/IIST	989	71	1 060	983	438	1 421	543	3 024
UNU/INRA	291	117	408	704	42	746	241	1 395
UNU/IAS	3 860	1 331	5 191	1 161	1 013	2 174	1 527	8 892
UNU/INWEH	781	239	1 020	664	131	795	236	2 051
UNU/ILA	403	189	592	391	34	425	345	1 362
UNU/BIOLAC	813	-	813	-	-	-	-	813
Total	13 285	8 967	22 252	11 954	9 688	21 642	10 655	54 549

^a The figures have not been audited.

^b Staff working on research and capacity-building, whether Professional, General Service or Academic Programme Associate.

^c All other staff.

^d Includes headquarters building.

Table 3

Expenditure within and outside the host country, 1999: actual expenditure (cash base) at 30 September 1999 (includes expenditure of 1999 obligations as well as obligations of previous years liquidated in 1999)^a

(Thousands of United States dollars)

		Actual expenditure				
UNU unit	Total	Within host country ^b	Outside host country ^c			
UNU Centre	25 828	16 110	9 718			
UNU/WIDER	3 678	1 889	1 789			
UNU/INTECH	3 795	2 409	1 386			
UNU/IIST	2 837	1 566	1 271			
UNU/INRA	1 208	88	1 120			
UNU/IAS	7 236	5 402	1 834			
UNU/INWEH	1 269	1 063	206			
UNU/ILA	917	239	678			
UNU/BIOLAC	670	71	599			
Total	47 438	28 837	18 601			

^a The figures have not been audited.

^b Proxied by amount in local currency.

^c Proxied by amount in United States dollars.

107. The University is always striving to become increasingly international in nature. The headquarters and institutes of UNU are located in 11 countries. UNU has a total staff of 211, of whom 60 are from developing countries. The number of staff working at the UNU Centre in Tokyo and at the research and training centres and programmes are indicated below.

Table 4 Staff

		Total staff		Of which	ı, Professiona	al series	Of which, C	General Servio	ce series	Of wl	hich, senior H	P4/L4
UNU unit	From developing Total countries Women		From developing Total countries Women		From developing Total countries Women			Total	From developing countries	Women		
UNU Centre	82	10	42	29	6	7	53	4	35	11	-	1
UNU/WIDER	25	7	12	9	4	1	16	3	11	5	2	-
UNU/INTECH	28	7	14	13	7	5	15	-	9	5	1	2
UNU/IIST	16	12	7	8	5	-	8	7	7	3	2	-
UNU/INRA	7	7	1	3	3	-	4	4	1	2	2	-
UNU/IAS	33	8	13	23	8	5	10	-	8	2	1	-
UNU/INWEH	10	-	4	7	-	2	3	-	2	1	-	-
UNU/ILA	6	5	1	4	3	-	2	2	1	1	-	-
UNU/BIOLAC	4	4	1	1	1	-	3	3	1	-	-	-
Total	211	60	95	97	37	20	114	23	75	30	8	3

Notes

- ¹ J. Klugman. Social and Economic Policies to Prevent Complex Humanitarian Emergencies. Lessons from Experience. UNU/WIDER Policy Brief, No. 2, 1999.
- ² http://www.wider.unu.edu/wiid/wiid.htm.
- ³ Albrecht Schnabel and Ramesh Thakur, "Kosovo and the Changing Contours of World Politics", Work in Progress: A Review of Research Activities of the UNU, vol. 15, No. 3, Summer 1999, pp. 21-24.
- ⁴ Albrecht Schnabel and David Carment, "Preventing Conflict: Who, When and How?", Work in Progress: A Review of Research Activities of the UNU, vol. 15, No. 3, Summer 1999, pp. 10-12.
- ⁵ G. P. Sampson and W. B. Chambers, eds., *Trade, Environment and the Millennium*, UNU Press, November 1999.
- ⁶ Interlinkages home page: http://www.geic.or.jp/interlinkages/index.html.
- ⁷ The following papers provide a more detailed analysis: (a) Rhys Jenkins, "Environmental Regulation and International Competitiveness: a Framework for Analysis", background report No. 20, July 1999; (b) Anthony Bartzokas and Masaru Yarime, "Environmental Regulation and Corporate Strategies in the European Fertilizer Industry", background report No. 21, June 1999; and (c) Jonathan R. Barton, "Environmental Regulations, Globalisation of Production and Technological Change in the Iron and Steel Sector", background report No. 22, July 1999.

⁸ See the UNU/IC website at http://www.unu.edu/ic/.

Annex I

Preliminary statistical information on the activities of the United Nations University

A. UNU projects, 1999

		Numb	er of meetin	ags ^a		ject expenditur of United State	
Functional unit	Number of projects	Total	Of which in host country	Of which in LDCs	Total	Of which in host country	Of which in LDCs
Centre (ESD) ^b	14	82	9	69	3 322	271	2 155
Centre (PG) ^c	20	16	3	4	887	24	223
UNU/WIDER	12	15	13	-	950	350	230
UNU/INTECH	13	4	-	1	620	379	57
UNU/IIST	13	9	-	-	303	250	53
UNU/INRA	7	7	7	7	305	66	239
UNU/IAS	13	20	11	4	1 912	506	625
UNU/INWEH	17	58	12	46	1 1 5 0	600	550
UNU/BIOLAC	2	2	-	2	50	5	50
Total	111	213	55	133	9 499	2 451	4 182

^a Estimated, based on information available at 30 September 1999.

^b ESD — Environment and Sustainable Development Programme.

^c PG — Peace and Governance Programme.

B. Project directors, consultants and meeting participants, 1999^a

	Pro	oject directors		(Consultants		Meeting participants		
UNU unit	Total	Of which from LDCs	Of which women	Total	Of which from LDCs	Of which women	Government officials	United Nations staff	
Centre (ESD)	60	39	11	302	241	74	776	107	
Centre (PG)	21	4	1	223	65	45	310	200	
UNU/WIDER	14	4	4	130	26	23	13	28	
UNU/INTECH	8	4	3	8	5	2	42	10	
UNU/IIST	-	-	-	38	25	2	8	-	
UNU/INRA	3	3	2	13	6	17	27	24	
UNU/IAS	7	7	3	35	35	8	31	15	
UNU/INWEH	17	7	3	43	21	5	40	16	
UNU/ILA				1	1	-	42	3	
UNU/BIOLAC	2	1	-	-	-	-	-	-	
Total	132	69	27	793	425	176	1 289	403	

^a Estimated, based on information available at 30 September 1999.

C. Fellowships and internships, 1999

(Cost in thousands of United States dollars)

		i i i i i i i i i i i i i i i i i i i	Recipients	
Functional unit	Cost	Total	From LDCs	Women
Centre (ESD)	40	16	9	5
Centre (PG)	10	7	7	5
Geothermal Training Programme (GTP) ^a	200	15	15	3
Fisheries Training Programme (FTP) ^b	120	9	9	2
UNU/WIDER	30	7	2	-
UNU/INTECH	200	14	14	5
UNU/IIST	250	55	53	9
UNU/INRA	-	18	18	3
UNU/IAS	564	29	13	6
UNU/INWEH	4	4	4	2
UNU/ILA	102	34	34	6
UNU/BIOLAC	146	21	21	14
Total	1 666	229	199	60

^a Under the National Energy Authority (NEA) of Iceland. ^b Under the Marine Research Institute (MRD) of Iceland.

Training courses, 1999 D.

(Cost in thousands of United States dollars)

		Cou	rses		Participants				
Unit	Cost	Total	In LDCs	Total	From LDCs	Women	Policy makers	United Nations staff	
Geothermal									
programme	796	1	-	15	15	3	1	-	
Fisheries programme	405	1	-	9	9	2	4	-	
Centre (ESD)	169	11	4	281	204	106	173	41	
Centre (PG)	-	-	-	-	-	-	-	-	
UNU/WIDER	-	4	-	110	6	50	-	-	
UNU/IIST	53	15	8	300	300	50	-	-	
UNU/INRA	62	2	2	19	19	3	-	-	
UNU/IAS	49	3	1	91	82	34	52	1	
UNU/ILA	315	1	1	58	47	21	4	8	
UNU/BIOLAC	122	5	5	77	77	46	-	-	
Total	1 971	43	21	960	759	315	234	50	

E. Publications, 1999^a

UNU unit	Published books	Books in production	Articles in journals	Policy briefs	Articles in the press
Centre (ESD)	6	15	20	15	5
Centre (PG)	5	5	20	1	30
UNU/WIDER	4	18	8	4	20
UNU/INTECH	2	3	12	3	-
UNU/IIST	-	1	25	-	39
UNU/INRA	1	1	-	1	1
UNU/IAS	5	5	13	4	28
UNU/ILA	-	-	-	-	-
GTP	1	1	2	-	3
FTP	-	2	2	-	6
Total	24	51	102	28	132

^a Includes papers published in conference proceedings.

F. Publicity materials, 1999

	Regular doc	uments and	newsletters	Promotion	ıs in 1999			
UNU unit	Number	Per year	Circulation	Number	Distribution	Mentions in the press	Major public events	Web site "hits"(per month)
Centre	5	2-3	5 000- 50 000	6	3 000- 25 000	450	9	8 000
UNU/WIDER	1	2	7 500	2	3 500	45	9	300
UNU/INTECH	-			1	50	20	-	1 000
UNU/IIST	1	4	200	4	300	50	1	2 093
UNU/INRA	1	1	200	1	350	25	2	
UNU/IAS	1	2	3 000	1	2 000	55	4	1 670
UNU/INWEH	1	3	2 000	1	15 000	25	4	
GTP	1	1	300	-		3	-	
FTP	1	1	100	-		10	-	
Total	12			16		683	29	

Annex II

New agreements concluded by the United Nations University, 1999

1. Statement of intention concluded with the United Nations Development Programme (UNDP) in order to promote concrete partnership.

2. Memorandum of understanding with the African Economic Research Consortium (AERC) in order to strengthen cooperation, especially on human development.

3. General agreement of cooperation between UNU and the Wageningen Agricultural University, the Netherlands to cooperate in areas of mutual interest, particularly in food and nutrition.

4. Agreement of cooperation between UNU, the Iwate Prefectural Government, and the Ocean Research Institute of the University of Tokyo, to implement a cooperative international research project on marine and coastal environment.

5. Agreement of cooperation between UNU and the Shimadzu Corporation to execute a project on environmental monitoring and governance — endocrine disruptor compounds pollution in the East Asian coastal hydrosphere.

6. Agreement of cooperation and memorandum of understanding between UNU, the University of Ghent and the Ministry of the Flemish Community of Belgium on the organization of an international training programme on biodiversity.

7. Agreement on academic exchange between UNU and the University of Tokyo to strengthen and expand cooperation in academic fields of mutual interest by carrying out multidisciplinary research, advanced training and the dissemination of knowledge.

8. Memorandum of understanding between UNU and the Association of African Universities to enhance coordination of work of both UNU and the Association on higher education in Africa.

9. Memorandum of understanding between UNU and the University of Yaoundé I to ensure effective commencement and offer of postgraduate courses in computer applications for natural resources from 2000.

10. Agreement between UNU and the Laurentian University, Canada, to work together on the establishment of a joint project to develop and promote the Laurentian Institute of Global Innovation, Learning and Technology.

11. Agreement between the United Nations Educational, Scientific and Cultural Organization (UNESCO), UNU, the City of Cannes and the University of Nice-Sophia Antipolis concerning the Mediterranean network UNESCO/UNITWIN chairs on water resources, sustainable development and peace: participation of universities, cities and economic players.

12. Agreement between UNU and the Government of Jordan regarding the establishment of the International Cooperating Office UNU/INWEH.

13. Statement of intention between UNESCO, UNU and the Global University Network for Innovation within the framework of the UNITWIN/UNESCO Chairs programme.

Annex III

Contributions to and links with the United Nations system

1. The nature and mandate of UNU ensures that we have one foot in the academic world and one foot in the United Nations system. A key goal of the University is to strengthen its role as a strategic intellectual resource for the multilateral system of cooperation. But, in order to add value within the United Nations system, UNU must also act as a bridge between the international academic community and the United Nations. A key challenge is to continue developing more diverse and creative ways to build effectively upon the intellectual resources of universities and specialized research institutes in different parts of the world for the benefit of the United Nations.

2. The Rector participates in the meetings of the Administrative Committee on Coordination of the United Nations, and other UNU staff serve on subsidiary bodies of the Committee, bringing the policy implications of UNU work directly to the key people of relevance.

3. In its project work, the University collaborates with 38 agencies in the United Nations system. Further, strengthening working links with various United Nations organizations is a central policy of the management of the University. In particular, UNU strengthened its cooperation with a number of departments of the United Nations Secretariat and with the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1999. UNU worked with UNESCO on the follow-up to the World Conference on Higher Education, the UNITWIN/UNESCO Chairs Programme, the World Conference on Science, the Management of Social Transformations Programme and the International Hydrological Programme, as well as on capacity-building in the area of educational software and computer science curriculum development.

4. Although UNU meetings usually consist of researchers and professionals, many officials from other United Nations agencies or the Bretton Woods institutions participated in UNU meetings in 1999 — totalling 379. For example, during this biennium some 30 experts from agencies including the Inter-American Development Bank (IADB), the International Food Policy Research Institute (IFPRI), the World Bank, the International Monetary Fund (IMF), the United Nations Development Programme (UNDP), the United Nations, the United Nations Children's Fund (UNICEF), the Economic Commission for Latin America and the Caribbean (ECLAC), the Food and Agriculture Organization of the United Nations (FAO), the International Labour Organization (ILO), the Office for the Coordination of Humanitarian Affairs of the Secretariat, the Economic Commission for Africa (ECA), and the Organisation for Economic Cooperation and Development (OECD) participated in the research work of UNU/WIDER.

5. Senior staff at UNU/WIDER along with external experts review the flagship reports of the United Nations on behalf of UNU, as requested by the Executive Committee on Economic and Social Affairs.

Partners in the United Nations system and related organizations
African Development Bank
Asian Development Bank
Convention on Biological Diversity
Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa
Economic Commission for Africa
Economic Commission for Latin America and the Caribbean
Economic and Social Commission for Western Asia
Food and Agriculture Organization of the United Nations
Global Environment Facility
Inter-Agency Committee on Sustainable Development
Inter-American Development Bank
International Fund for Agricultural Development
International Monetary Fund
United Nations Children's Fund
United Nations Conference on Trade and Development
United Nations Development Fund for Women
United Nations Development Programme
United Nations Educational, Scientific and Cultural Organization
United Nations Environment Programme
United Nations High Commissioner for Refugees, Office of the
United Nations Industrial Development Organization
United Nations Institute for Disarmament Research
United Nations Institute for Training and Research
United Nations Population Fund
United Nations Research Institute for Social Development
United Nations Secretariat:
Department of Economic and Social Affairs
Department of Peacekeeping Operations
Office for the Coordination of Humanitarian Affairs
World Bank
World Health Organization
World Meteorological Organization

World Trade Organization

* * *

Multilateral environmental agreements

Organisation for Economic Cooperation and Development

Annex IV

Partners other than those within the United Nations system

- Academic Council on the United Nations System (ACUNS)
- African Economic Research Consortium (AERC)
- African Network of Scientific and Technological Institutions (ANSTI)
- Anna University, India
- Association of African Universities (AAU)
- Canadian International Development Agency (CIDA)
- Central Food Technological Research Institute (CFTRI), India
- Chinese Academy of Sciences, China
- Consultative Group on International Agricultural Research (CGIAR)
- Cornell University, United States of America
- Earth Institute, Columbia University, United States of America
- Environmental Education and Training Institute of North America (EETINA), Mexico
- European Commission
- Foundation for International Environmental Law and Development (FIELD), United Kingdom
- Global Change System For Analysis, Research and Training (START)
- Global Development Network (GDN)
- Global Legislators Organization for a Balanced Environment (GLOBE)
- Icelandic Fisheries Industries
- Icelandic Fisheries Laboratories
- Indian Institute of Technology, Delhi
- Institute of Nutrition of Central America and Panama (INCAP), Guatemala
- Institute of Nutrition, University of Chile
- Institute of Public Health, Yugoslavia
- Institute of Social Studies, the Netherlands
- Instituto Nacional de Pesquisas Espaicais, Brazil
- International Association of Universities (IAU)
- International Association of University Presidents (IAUP)
- International Council for Science (ICSU)
- International Development Research Centre (IDRC), Canada
- International Economic Association (IEA)

- International Foundation for Science (IFS)
- International Geographical Union (IGU)
- International Geothermal Association (IGA)
- International Mountain Society (IMS)
- International Peace Research Association (IPRA)
- International Soil Reference and Information Centre (ISRIC)
- International Union of Nutritional Sciences (IUNS), the Netherlands
- Japan-United Nations Studies Association
- Kirin Brewery Company, Japan
- Lake Victoria Fisheries Organization (LVFO)
- Maastricht Economic Research Institute on Innovation and Technology (MERIT), Maastricht University, the Netherlands
- Mahidol University, Thailand
- Marine Research Institute, Iceland
- National Academy of Sciences, Egypt
- National Energy Authority, Iceland
- National Food Research Institute (NFRI), Japan
- National Institute of Nutrition, Egypt
- National Institute of Nutrition, Italy
- Nestlé Foundation
- Nutrition Research and Development Centre, Indonesia
- Pan American Center for Sanitary Engineering and Environmental Sciences (CEPIS)
- Regional Centre for Water Supply and Sanitation (CREPA), Burkina Faso
- Science and Technology Policy Research (SPRU)/Institute of Development Studies (IDS) at the University of Sussex, United Kingdom
- Universidade Estadual de Campinas, Brazil
- Universidade Federal do Pará, Brazil
- University of Akureyri, Iceland
- University of Cape Town, South Africa
- University of Dar es Salaam, United Republic of Tanzania
- University of Geneva, Switzerland
- University of Ghana
- University of Ghent, Belgium
- University of Iceland

- University of Malawi
- University of Nairobi, Kenya
- University of Tokyo, Japan
- Venezuelan Institute of Scientific Research
- Wageningen Agricultural University, the Netherlands

Annex V

New titles, 1999

A. UNU Press

The Basin of Mexico: Critical Environmental Issues and Sustainability, by Exequiel Ezzurra et al.

Management of Latin American River Basins: Amazon, Plata and São Francisco, edited by Asit K. Biswas et al.

Water for Urban Areas: Challenges and Perspectives, edited by Juha I. Uitto and Asit H. Biswas

The Ordos Plateau of China: An Endangered Environment, by Hong Jiang

Democracy, Governance and Economic Performance: East and Southeast Asia, edited by Ian Marsh et al.

The Democratic Process and the Market: Challenges of the Transition, edited by Mihály Simai

Peacekeepers, Politicians, and Warlords: The Liberian Peace Process, by Abiodun Alao et al.

United Nations Peacekeeping Operations: A Guide to Japanese Policies, by L. William Heinrich, Jr. et al.

International Security Management and the United Nations, edited by Muthiah Alagappa and Takashi Inoguchi

Trade, Environment, and the Millennium, edited by Gary P. Sampson and W. Bradnee Chambers

Model, Myth, or Miracle? Reassessing the Role of Governments in the East Asian Experience, by Beatrice Weder

Cities and the Environment: New Approaches for Eco-Societies, edited by Takashi Inoguchi et al.

Conducting Environmental Impact Assessment for Developing Countries, by Prasad Modak and Asit K. Biswas

Crucibles of Hazard: Mega-cities and Disasters in Transition, edited by James K. Mitchell

Global Financial Turmoil and Reform: A United Nations Perspective, edited by Barry Herman

What is Equitable Geographic Representation in the Twenty-first Century? edited by Ramesh Thakur (non-sales item)

Africa's Natural Resource Conservation and Management Surveys: Summary Proceedings of the UNU/INRA Regional Workshop, edited by J. J. Baidu-Forson (non-sales item)

Networking in Brucellosis Research II: Proceedings of the UNU/BIOLAC Brucellosis Workshop, edited by Julius F. Frank (non-sales item)

African Mountains and Highlands: Planning for Sustainable Use of Mountain Resources, edited by Francis F. Ojany (non-sales item)

Translations

In 1999, efforts to increase the distribution of UNU Press publications and to make UNU research findings more accessible through translations and co-publications showed some good results. The number of translations of UNU Press books into Japanese was especially noteworthy. The following titles were co-published in translated versions:

The Changing Nature of Democracy, edited by Takashi Inoguchi et al. (1998): Japanese, with Yuhikaku Publishing; and Chinese, with Wangsheng Books

The Long Road to Recovery, edited by James K. Mitchell (1996): Japanese, with Sogei Publishing

The Impact of Chaos on Science and Society, edited by Celso Grebogi and James A. Yorke (1997): Japanese, with Morikita Publishing

Eco-restructuring, edited by Robert U. Ayres and Paul M. Weaver (1998): Japanese, with Sogei Publishing

Who's Hungry? And How Do We Know?, by Laurie DeRose et al. (1998): Japanese, with Seiryu Publishing

Volunteers Against Conflict (1996): Japanese, with Seiryu Publishing

China in the Twenty-first Century, edited by Fumio Itoh (1997): Chinese, with Chinese Academy of Science and Technology

In Fairness to Future Generations, by Edith Brown Weiss (1992): Chinese, with Law Press of China; and Spanish, with Mundi Prensa Libros

The Oceanic Circle, by Elisabeth Mann Borgese (1998): German, with Mare Verlag (Kiepenheuer und Witsch)

Negotiations are currently under way with a Japanese publisher for the translation and joint publication of four UNU Press titles on environmental issues per year.

B. Other published books based on UNU work

Björn Hettne, András Inotai and Osvaldo Sunkel (eds.), *Globalism and the New Regionalism*, vol. I. Macmillan Press/St. Martin's Press, 1999 (New Regionalism Series/International Political Economy Series)

Aiguo Lu, *China and the Global Economy since 1840*. Macmillan Press/St. Martin's Press, 1999.

Peter Svedberg, *Poverty and Undernutrition: Theory, Measurement, and Policy*. Oxford University Press, 1999 (UNU/WIDER Studies in Development Economics) The Humanitarian Challenge in a World of Conflict: The Plight of Land-mine Victims (Fridtjof Nansen memorial lecture, 1998), by Astrid Nøklebye Heiberg

President of the International Federation of Red Cross and Red Crescent Societies; African Development in the Twenty-first Century, with contributions by Cassim Chilumpha and Delphin G. Rwegasira

Donor Coordination and the Effectiveness of Development Assistance, with contributions by Hisashi Owada, Joseph Stiglitz, Carol Bellamy and Patrizio Civili

The Economics of Land Degradation and Rural Poverty Linkages in Africa (1998 UNU/INRA annual lectures), by Edward B. Barbier

Annex VI

Contributions received from 1 January to 30 September 1999

(United States dollars)

Subtotal	8 720 779.11	
United Kingdom	29 368.38	UNU/WIDER project on sub-Sahara
Sweden (SIDA) ^b	87 858.99	UNU/WIDER project on income distribution and social structure durin the transition
Slovakia	15 000.00	Endowment contribution for UNU
Norway	60 000.00	UNU/ILA 1999 leadership training course
Netherlands	521 376.36	Operating contribution for UNU/INTECH
Macau	44 139.65	UNU/IIST project on the Information Network Centre of Macau
Jordan	500 000.00	Operating contribution for UNU/ILA
Japan	441 666.67	For establishment of UNU data centre
Japan	833 333.33	For UNU Akino project
Japan	830 000.00	For various UNU projects
Japan	1 747 000.00	Operating contribution for UNU/IAS
lapan	2 254 000.00	Operating contribution for UNU
India	150 000.00	Endowment contribution for UNU
Finland (SITRA) ^a	74 426.96	UNU/IAS project on world forests, society and environment
Denmark	45 000.00	UNU/WIDER project on institutions and development
Denmark	80 000.00	Operating contribution for UNU/WIDER
Canada	782 893.43	Operating contribution for UNU/INWEH
Belgium	224 715.34	UNU project on biodiversity
Donor Governments		
	Amount	

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	Amount	
Other donors		
Centre for Environmental Information Science, Japan	21 008.40	UNU/IAS sustainable future conference
European Commission	33 358.81	UNU/INTECH project on technological change and science and technology policy in least favoured European regions
EETINA, [°] Mexico	13 614.87	UNU/INWEH project in Mexico
Federation of Canadian Municipalities, Canada	10 953.64	UNU/INWEH project on a new water well in Rafah
Global Environment Facility	822 625.00	Support for project on people, land management and environmental change
International Bank for Reconstruction and Development (World Bank)	27 000.00	UNU/INWEH project
International Development and Research Centre, Canada	29 386.40	UNU/INTECH project on implications for employment and trade in developing countries, India
International Development and Research Centre, Canada	22 934.23	Support for project on conflict prevention
International Leadership Programme participants	5 902.82	Participation fees for 1999 UNU/ILA leadership training course
Ishikawa Foundation for International Exchange, Japan	118 680.67	UNU/IAS project on eco-restructuring and industrial ecology
Junta de Aqua y Saneamiento de Juarez	82 346.84	UNU/INWEH project on Juarez biosolids management
Kirin Brewery Company, Japan	239 130.43	For UNU/Kirin fellowships for 1999
Kokuba-gumi, Japan	819.67	Support for UNU global seminar, Okinawa session, 1999
Libra, Japan	10 000.00	Support for UNU/IAS project on universal networking language
Okinawa Credit Service Company, Japan	434.78	Support for UNU global seminar, Okinawa session, 1999
Okinawa Electricity Company, Japan	2 608.70	Support for UNU global seminar, Okinawa session, 1999
Okinawa Bank Association, Japan	1 801.80	Support for UNU global seminar, Okinawa session, 1999
Oracle Finland, Finland	10 000.00	Support for UNU/WIDER annual lecture series
Regional Authority of Sardinia, Italy	80 000.00	Feasibility study to establish a programme in the area of marine scien and ocean affairs

A/55/31

Grand total	10 582 448.84	
Subtotal	1 861 669.73	
Yrjo Jahnsson Foundation, Finland	17 953.32	UNU/WIDER project on the European Economic and Monetary Union (EMU) and its impact on Europe and the developing countries
Yabu Construction Company, Japan	826.45	Support for UNU global seminar, Okinawa session, 1999
Netherlands Foundation for the Advancement of Tropical Research	11 719.54	UNU/INTECH project on the evolution of software technology and implications for the international division of labour between Indian and United States software
United Nations Development Fund for Women (UNIFEM)	20 000.00	UNU/INTECH project on monitoring the impact of new technologies on women's industrial work in Asia
United Nations Educational, Scientific and Cultural Organization (UNESCO)	11 700.00	UNU/ILA project on UNESCO Chair
United Nations Development Programme (UNDP)	12 590.00	Support for project on Africa and Asia on global economy
United Nations International Drug Control Programme (UNDCP)	25 000.00	Support for project on the global study on illegal drug markets
United Nations, Department of Economic and Social Affairs	30 334.62	UNU/WIDER project on new roles and functions for the United Nations and the Bretton Woods institutions
Tokyo Soft, Japan	10 434.78	Support for UNU/IAS project on universal networking language
Shimadzu Company, Japan	155 826.09	Support for project on environmental monitoring and governance: endocrine disruptor chemical pollution in the East Asian coastal hydrosphere
Sato Foundation, Japan	8 333.33	Support for the UNU library
Ryukyu Cement Company, Japan	413.22	Support for the UNU global seminar, Okinawa session, 1999
Rissho Koseikai, Japan	24 793.39	Support for the UNU World Non-Governmental Organization Conference
	Amount	

^a Finnish National Fund for Research and Development.
^b Swedish International Development Agency.
^c Environmental Education and Training Institute of North America.

Annex VII

Members of the Council of the United Nations University, 1999

Appointed members

- Ingrid Moses (Australia) (Chair of the Council), Vice-Chancellor, University of New England, Armidale, Australia
- Yoginder K. Alagh (India), Member of Parliament (Upper House), India; Vice-Chairman, Sardar Patel Institute of Economic and Social Research; and former Minister of State (Independent Charge) for Science and Technology and Power, Government of India
- Faizah M. Al-Kharafi (Kuwait), President, Kuwait University, Safat, Kuwait
- Josep Bricall (Spain), President, Conference of European Rectors Association of European Universities, Geneva
- José Joaquin Brunner Ried (Chile), former Minister, Ministry of the Secretary-General, Government of Chile
- Ana Maria Cetto (Mexico), Vice-President, Committee on Science and Technology in Developing Countries, International Council of Scientific Union; and Research Professor, Institute of Physics, National University of Mexico, Mexico
- Paolo Costa (Italy), Department of Economic Science, Università Ca' Foscari di Venezia; and former Minister of Public Works, Ministry of Public Works, Government of Italy
- Elizabeth J. Croll (United Kingdom of Great Britain and Northern Ireland), Head, Department of Development Studies, University of London
- Donald Ekong (Nigeria), Scholar-in-Residence, The Ford Foundation, Johannesburg
- Salim El-Hoss (Lebanon), Member, Lebanese Parliament; Professor of Economics, American University of Beirut; and former Prime Minister of Lebanon
- Donald Gerth (United States of America), President, California State University, Sacramento, United States of America; and President, International Association of University Presidents
- Genady Nikolaevich Golubev (Russian Federation), Head, Department of World Physical Geography and Geoecology, Faculty of Geography, Moscow State University
- Françoise Héritier-Augé (France), Director, Laboratoire d'Anthropologie Sociale, Ecole des Hautes Etudes en Science Sociales, Collège de France
- Risto Ihamuotila (Finland), Chancellor, University of Helsinki
- Aleksandra Kornhauser (Slovenia), Director, International Centre for Chemical Studies, University of Ljubljana, Slovenia
- Lin Quan (China), Secretary-General, State Science and Technology Commission of China, Beijing

- Graça Machel (Mozambique), President, Foundation for Community Development, Mozambique
- Valeria Merino-Dirani (Ecuador), Executive Director, Corporacion Latinoamericana para el Desarrollo, Quito
- Ahmadou Lamine Ndiaye (Senegal), Ministre Conseiller special du Président de la République, Senegal; and former Rector, Université Gaston-Berger de Saint-Louis, Senegal
- Jairam Reddy (South Africa), Independent Consultant in Higher Education; and former Vice-Chancellor, University of Durban, South Africa
- Françoise Thys-Clement (Belgium), Pro-Rector, Université Libre de Bruxelles
- Carlos Tünnermann Bernheim (Nicaragua), Special Adviser to the Director-General of the United Nations Educational, Scientific and Cultural Organization for Latin America and the Caribbean, Managua
- Wichit Srisa-an (Thailand), Rector, Suranaree University of Technology, Thailand
- Chusei Yamada (Japan), Professor of International Law, Faculty of Law, Waseda University, Tokyo

Rector

Hans van Ginkel (the Netherlands)

Ex-officio members

Kofi Annan (Ghana), Secretary-General, United Nations

- Federico Mayor (Spain), Director-General, United Nations Educational, Scientific and Cultural Organization
- Marcel Boisard (Switzerland), Executive Director, United Nations Institute for Training and Research

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