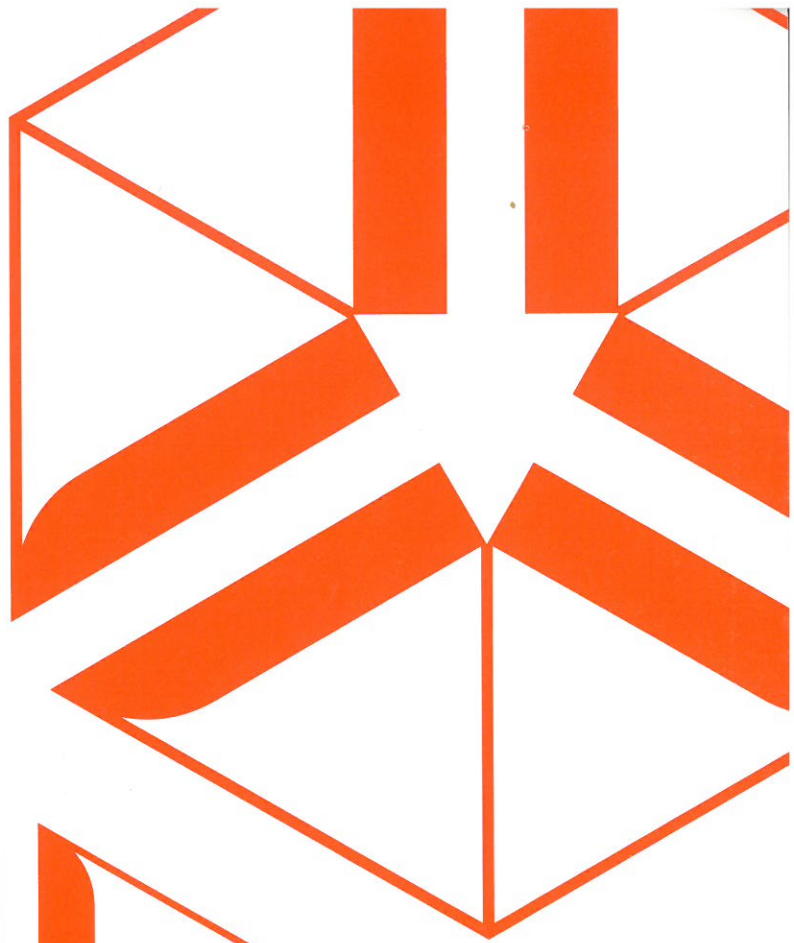
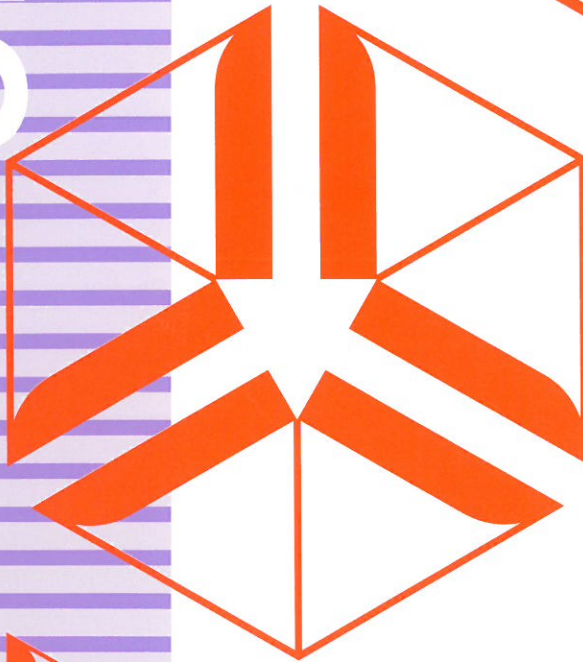
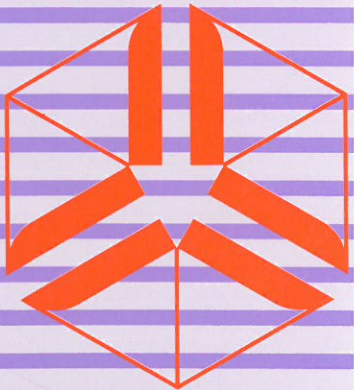
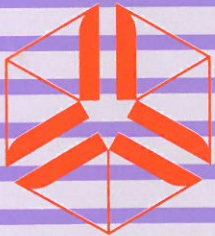


The United Nations  
University



**1995  
ANNUAL REPORT**

# The United Nations University

## Background

The United Nations University (UNU) is an international academic organization which plays a unique role in world affairs and in promoting the United Nations' aims of peace and progress. It provides and manages a framework for bringing together the world's leading scholars to tackle the "pressing global problems of human survival, development and welfare."

The UNU's approach to the advancement of knowledge is unlike that of other institutions of higher learning. It does not have the structure of a conventional university; instead its work is carried out through its own network of research and training centres and programmes and through worldwide networks of associated and cooperating institutions, research units and individual scholars and scientists. The academic freedom guaranteed by its Charter enables UNU scholars and scientists worldwide to collaborate freely.

The idea for this type of international institution was proposed in 1969 by the then United Nations Secretary-General, U Thant, who suggested the creation of "a United Nations university, truly international in character and devoted to the Charter objectives of peace and progress."

The UNU is an autonomous organ of the United Nations General Assembly under the joint sponsorship of the United Nations and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

## Organization

The University Council, which sets the principles and policies for the University, has 24 members who are appointed jointly by the Secretary-General of the United Nations and the Director-General of UNESCO for six-year terms. Members serve in their individual capacities, not as representatives of their countries. There are three ex officio members: the Secretary-General of the United Nations, the Director-General of UNESCO and the Executive Director of the United Nations Institute for Training and Research (UNITAR). The Rector is also a member of the Council.

The Rector is the chief academic and administrative officer of the University and has overall responsibility for the direction, organization, administration and programmes of the University.

The University's research and training activities are coordinated by the Academic Division at the University's headquarters in Tokyo and by a growing number of research and training centres and programmes.

## Research and training directions for the 1990s

The University's work in the 1990s acknowledges the far-reaching effects of human activities, which can alter the world on an unprecedented scale, including those which affect developing countries in particular. The five areas of concentration, as articulated in the University's Second Medium-Term Perspective (1990-1995), are:

- Universal human values and global responsibilities;
- New directions for the world economy;
- Sustaining global life-support systems;
- Advances in science and technology; and
- Population dynamics and human welfare.

The academic activities of the University are carried out primarily through a network of its research and training centres described briefly as follows:

### **UNU World Institute for Development Economics Research (UNU/WIDER), Helsinki, Finland (March 1985)**

The first research and training centre of the UNU, UNU/WIDER is dedicated to the study of economic policies, especially on a global scale, that might help to bring about widespread improvements in the human condition. Studies are carried out by an in-house staff of research fellows, by economists and other scholars located in various parts of the world. In a world already served by many economic "think-tanks," UNU/WIDER's purpose is essentially to play a complementary role to that of other major research centres, most of which are located in OECD countries. UNU/WIDER's viewpoint, by contrast, is grounded in the problems and realities of developing countries. Its ultimate purpose is to help those countries form economic policies that will lead to robust, equitable and environmentally sustainable growth.

### **UNU Institute for New Technologies (UNU/INTECH), Maastricht, the Netherlands (October 1990)**

UNU/INTECH carries out integrative policy-oriented research and training on the economic and social implications of new technologies for developing countries. It makes particular efforts to establish links to institutions in developing countries pursuing research in this area. In its initial stages, UNU/INTECH's programme emphasizes four main activities: research on the economic and social impact of new technologies; policy studies on matters of urgent importance; establishment of UNU/INTECH cooperating units in developing countries; and the training of Ph.D. interns.

*(Continued on the inside back cover.)*

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**C O N T E N T S**

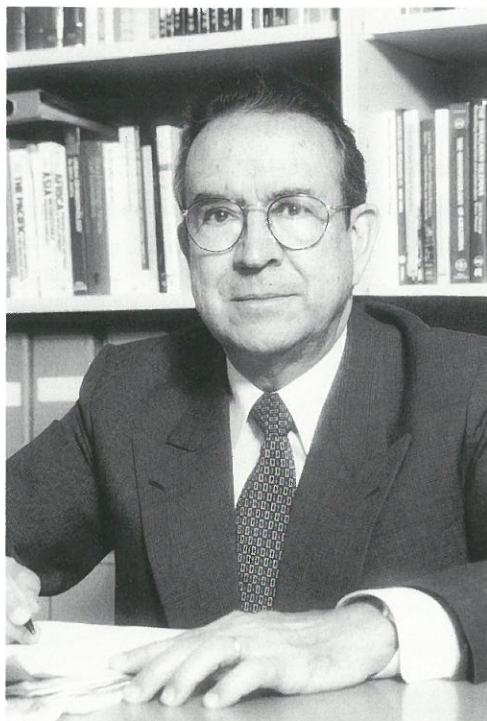
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<b>Introductory message from the Rector of the UNU</b> .....	iv
<b>The focal point of the United Nations University:</b>	
<b>Global change and global responsibilities—an overview</b> .....	1
<b>The University's work: Issues and challenges</b>	
<b>Universal human values and global responsibilities</b> .....	2
The United Nations system, global governance and security .....	3
Conflict resolution and ethnicity .....	4
Governance, State and society .....	5
Culture and development .....	6
<b>New directions for the world economy</b> .....	7
Growth and sustainable development: Evolving global, regional and national structures and mechanisms .....	7
Socio-economic dimensions of development: Employment, equity and gender issues .....	9
Global change and perspectives .....	10
<b>Sustaining global life-support systems</b> .....	11
Eco-restructuring for sustainable development .....	11
Integrated studies of ecosystems .....	13
Information systems for environmental management .....	16
Natural resources in Africa .....	16
Environmental law and governance .....	17
<b>Advances in science and technology</b> .....	18
Socio-economic implications of new technologies .....	18
Applications of biotechnology for development .....	19
Software technology for developing countries .....	20
Microprocessors and informatics .....	21
<b>Population dynamics and human welfare</b> .....	23
Population, urbanization and development .....	23
Population, land management and environmental change (PLEC) .....	23
Food and nutrition for human and social development .....	24
<b>Building capacities: UNU postgraduate education</b> .....	27
<b>Dissemination of research findings</b> .....	30
<b>Interface with the United Nations system</b> .....	33
<b>State of the University—1995</b> .....	39
<b>Annex 1: UNU academic programme for 1994–1995</b> .....	45
<b>Annex 2: UNU academic activities in 1995</b> .....	46
<b>Annex 3: Members of UNU networks—1995</b>	
Members of the University Council .....	49
Members of the boards of UNU research and training centres and UNU advisory committees .....	50
Personnel of the United Nations University .....	51
Programme/project and training coordinators .....	54
<b>Annex 4: UNU titles published in 1995</b>	
Books .....	57
Other publications .....	58
<b>Annex 5: UNU depository libraries around the world</b> .....	61



## Introductory message from the Rector of the UNU

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I am pleased to introduce the Annual Report of the United Nations University (UNU) for 1995. The report is meant to provide you with detailed information on the research, postgraduate training and dissemination activities carried out by the UNU during the year.

The year 1995 marked the 20th anniversary of the UNU. In comparison to most universities around the world, the UNU is still a very young institution. Despite our relative youth, we are seeking to improve and expand our programme of activities, and we will continue our efforts to serve as bridge between the United Nations system and the international scholarly community.

The 1995 Annual Report describes UNU academic activities in the last year of the period covered by our second Medium-Term Perspective (MTP II)

1990–1995. The structure of the report follows closely the five programme areas of MTP II with additional descriptions of our postgraduate training and dissemination activities and a summary section on the State of the University in 1995. We have added a new section to this year's report to present some of the highlights of our interaction with other United Nations organizations. We have also tried in our descriptions of UNU activities to provide more information on our partnerships and the cooperating institutions which are an important part of our global networks.

I very much hope that you will find the 1995 Annual Report of interest. We always welcome suggestions and comments on our Annual Report and we would be pleased to hear from you.

Heitor Gurgulino de Souza



## The focal point of the United Nations University: Global change and global responsibilities—an overview

The year 1995 was one for solemn international commemoration of the 50 years that had elapsed since the end of World War II and the launching of the United Nations as an expression of humanity's desire for an end to war. It also marked the 20th anniversary of the United Nations University, the world organization's own unique academic arm. In these two decades, the UNU has come to play a special role in promoting the United Nations' goal of peace and progress. Embodied in the University's vision is the recognition that today's all pervasive processes of transformation now under way must be a renewed sense of global stewardship.

The Council of the University held its 42nd session in Tokyo, Japan, during 4–8 December 1995. Its deliberations focused primarily on these last few years of the UNU's journey into the next century. The Council examined the University's work in the final year of its present Medium-Term Perspective (MTP II/1990–95) and reviewed the draft Medium-Term Perspective III which will cover the period 1996–2001. It adopted the programme and budget for the University for the 1996–97 biennium.

The Second-Medium Term Perspective, whose work closes out this year, has operated under the broad rubric of Global Change and Global Responsibilities. In responding to that perspective over the last six years, UNU academic work has been carried out in five specific programme areas:

- Universal human values and global responsibilities;
- New directions for the world economy;
- Sustaining global life-support systems;
- Advances in science and technology; and
- Population dynamics and human welfare.

This 1995 annual report provides a summary of the activities of the University within each of these pro-

gramme areas. The document also highlights UNU efforts over the year in postgraduate training, institutional development and in the dissemination of research findings. A new addition to this year's report is a summary of the UNU work with other United Nations organizations and entities during the year.

As in the past, the report is not meant to provide exhaustive detailed coverage of the UNU academic work. Its logic rather is to convey a sense of the diversity of the University research, training and dissemination efforts. It aims thus at providing a consolidated view of the UNU work across a globally decentralized structure of scholarly and scientific institutions and individuals.

In 1995, the University had four of its own research and training centres (RTCs) that were fully operational:

- The World Institute for Development Economics Research (UNU/WIDER) in Helsinki, Finland;
- The Institute for New Technologies (UNU/INTECH) located in Maastricht, the Netherlands;
- The International Institute for Software Technology (UNU/IIST) in Macau; and,
- The Institute for Natural Resources in Africa (UNU/INRA) in Accra, Ghana.

In addition to these centres, the University in 1995 also established a new International Leadership Academy (UNU/ILA) in Amman, Jordan, and it continued its Programme for Biotechnology in Latin America and the Caribbean (UNU/BIO-LAC) which is located in Caracas, Venezuela. There were a number of other cooperating institutions throughout the world involved in UNU; they are cited in the context of their specific roles within given UNU programme areas.



## The University's work: Issues and challenges

### Universal human values and global responsibilities

The world that has emerged in the aftermath of the long Cold War struggle has proved to be fraught with different sorts of risks. New global issues, thrust to the fore by political, economic and ecological concerns, are demanding fresh thinking on human values—and their translation into everyday rights and duties. The instruments forged to cope with an East-West ideological clash are often hopelessly inadequate to our modern age.

This UNU programme area explores a number of essential issues in the unfolding international political scenario. There are four specific programmes:

- **The United Nations system, global governance and security**  
This programme addresses the evolving role of the United Nations against the increasing demands its services in peace-keeping and social development. These activities are primarily carried out by the UNU Centre in Tokyo.
- **Conflict resolution and ethnicity**  
A diverse tangle of cultures and civilizations, often nursing ancient enmities, contend for space on the globe. The institutional research framework for this programme is provided by the Initiative on Conflict



A general view of the summit-level meeting of the United Nations Security Council.  
UN Photo 179195/M. Grant



Resolution and Ethnicity—known by the acronym INCORE—a joint programme of the UNU at the University of Ulster in Northern Ireland, United Kingdom, a land which has known some of the bitterest sectarian strife in recent years.

- **Governance, State and society**

The unrelenting demands of global interdependence require a broad new set of social acts of governance. The major focus of this programme during 1995 was on exploratory activities for a possible UNU research and training centre on the study of governance to be located in Barcelona, Spain. There was also research coordinated by the World Institute for Development Economics Research (UNU/WIDER) in Helsinki, Finland.

- **Culture and development**

The assertion of cultural identity, undergirded by respect for human dignity, has come to be seen as a fundamental driving force of equitable growth. The University's current work on this important develop-

ment consideration is implemented in cooperation with the Asian-Pacific Center in Fukuoka City, Japan.

### **The United Nations system, global governance and security**

In 1995, this programme, either jointly or independently, organized a number of conferences and symposia, generated policy-relevant publications, and organized new research efforts.

In January, in cooperation with the International Peace Academy, the programme organized a high-level symposium for policy makers, academics and the general public on the latest developments in peace-keeping and humanitarian operations. The two-day Tokyo symposium attracted wide media attention, featuring a televised round-table discussion involving Mr. Yasushi Akashi, Special Representative of the Secretary-General for the former Yugoslavia, and Mr. Hisashi Owada, the Permanent Representative of Japan to the United Nations, New York.

The symposium addressed theoretical justifications for the use of force and humanitarian intervention, and made several practical policy recommendations on mission mandates, rapid reaction capabilities and training needs. A concise report of the findings of the symposium was published and widely circulated to permanent missions to the United Nations, the international media, and the larger academic community. An issue of *UNU Work in Progress* (Volume 14, No. 3) drew on a number of the papers presented at the meeting.

The UNU project on multilateralism and the United Nations system, launched in 1990, has been studying the dynamics between the changing world order structure and new elements of international organization. The project's work was completed in December at an international symposium in San José, Costa Rica. The symposium addressed the multilateral context of development strategies, hunger, technology, ecosystems, human rights and security.

Two volumes<sup>1</sup> emanating from this project were issued by UNU Press in 1995. These books explore the relationship between particular state/society complexes and the world order represented by institutions since 1945 and provide a unique source of information and analysis of member states' perceptions and policies towards the United Nations. Three other manuscripts comprising work from the project were in preparation at the end of the year.



<sup>1</sup> K. Krause and W.A. Knight (eds.), *State, Society and the UN System: Changing Perspectives on Multilateralism* (UNU Press, 1995); and C.F. Alger, G.M. Lyons, and J.E. Trent (eds.), *The United Nations System: The Policies of Member States* (UNU Press, 1995).



As part of its project on peace-keeping, preventive diplomacy and UN reform, the UNU co-organized a conference in Melbourne, Australia, with La Trobe University and the Australian National University. The conference brought together prominent international scholars, senior UN and governmental officials, diplomats, and NGO representatives to discuss three main themes: global security, institutional reform and regionalism.

With particular emphasis on the Asia-Pacific region, the meeting dealt with such questions as the response of churches and other non-state actors to the UN security agenda, environmental problems, human rights in the region, and self-determination for indigenous peoples. The conference attracted wide coverage in the news media in Australia and will lead to a number of public outputs in the form of books, journal articles and opinion/editorial journalism pieces.

The UNU launched a major new research initiative on "The United Nations System in the 21st Century" at a symposium in Tokyo on 21–22 November 1995. Held in commemoration of the 50th anniversary of the United Nations and the 20th anniversary of the UNU, the symposium, was organized in cooperation with the Academic Council on the United Nations System and the International Cooperation and Research Association.

The objective of this six-year research project is to explore and suggest the most appropriate models for international organizations, especially the United Nations, that would best serve human needs in the 21st century. The first phase will evaluate the rationale and concepts behind the activities of international organizations. The project will also take stock of the capabilities of the United Nations and seek to diagnose problems that currently plague the system. The second phase of the project will combine these theoretical inquiries with empirical studies to produce workable future scenarios for international organization. Specific research topics will include states and sovereignty, global citizenship, regionalism, and the role of international civil service.

The UNU Global Seminar series continued for its 11th year. The seminars are designed to enhance international awareness among the student population in Japan through active interaction with scholars and experts working in UNU's global networks. Two seminars were held in 1995: the first at Shonan International Village in Hayama, Kanagawa-ken, in early September and the second in Kobe in late September. The themes for the seminars were "The UN at 50: Building Peace" and "Global Society in

Transition and United Nations Reform: Towards a Gentler and Safer World." In total, about 150 students from Japan and elsewhere participated in the four-day seminars.

### **Conflict resolution and ethnicity**

The experiences and involvement of India, Ireland and Sweden in United Nations peace-keeping operations (PKOs) was the focus of a comparative study undertaken by the UNU under INCORE at the University of Ulster. The three nations were selected on the basis of their contrasting experiences in training and preparation for peace-keeping missions as well as the possible differences which might exist between their European and developing country perspectives. The three country studies are being complemented by comparative analyses of selected UN missions, interviews with key personnel in civilian and military peace-keeping as well as national policy makers; analyses of UN documentation and reports with a view to improving coordination between UN Headquarters and field commanders; and review of press reports to gauge public reaction to the way in which PKOs are conducted.

The project is expected to provide a set of recommendations on how to improve the preparation and training of both civilian and military peace-keepers. Research activities are being carried out by teams from INCORE and the Irish Peace Institute of the University of Limerick and the Austrian Study Center for Peace Research. A database of bibliographic materials and a press archive have been established at the Irish Peace Institute under this project.

Other INCORE activities were focused on developing and commissioning an ethnicity and conflict reduction network and included preparing a newsletter and building a database. A survey was also undertaken to determine user requirements for the database.

As another step toward improving understanding of conflict resolution, a country guide series was launched in 1995 on the perspectives and capabilities of troop-contributing countries in peace and humanitarian operations. The project is a cooperative venture with the United Nations Department of Peace-keeping Operations.

The guide will involve preparation of country specific reports, using workshops and symposia to ensure effective review and comparative analysis. Pilot studies on France, Japan and the Republic of Korea were under way at year's end. The country reports will review current government policies, the political





environment, the legal basis and decision-making processes as well as financing and budgetary processes. Military, civil affairs, police and NGO capabilities and the modalities of involvement are other questions to be addressed in the reports.

In UNU's monograph series, scholars associated with International Alert and INCORE published four research papers during the year dealing with ethnicity and power in the contemporary world, building peace, peaceful and constructive resolution of situations involving minorities, and conflict resolution in Northern Ireland.

In the lead-up to the Asia-Pacific economic summit meeting in Osaka, Japan, in November 1995, the UNU, together with the Council for Security Cooperation in Asia Pacific and La Trobe University, Australia, held a regional security workshop in Tokyo during 30–31 October. The workshop entitled, "Asia-Pacific Security at Century's End: National, Regional and Global Ramifications," formed part of the follow-up activities of the Commission on Global Governance. It brought together leading Asia-Pacific scholars involved in the so-called "two-track" or informal meetings of officials and academics from a dozen countries concerned with confidence and security-building measures in the region. Major themes addressed were: the proliferation of weapons of mass destruction; arms build-up and force modernization; territorial disputes and the prospects for their resolution; the UN Arms Register and regional compliance; and the future of the ASEAN Regional Forum and track-two fora.

### Governance, State and society

Drawing on the resource base of scholars from the Catalan academic community and funded by the Directorate-General of Research of the Generalitat of Catalunya, Spain, the UNU's explorations of governance issues progressed during the year. Two inter-university projects included participation by graduate students and representatives of government and civil society. Promising young faculty members participated in colloquia and workshops; occasional papers and articles are the expected initial outputs from the programme. The long-term objective of the activities is the establishment of a UNU research and training centre for the study of governance, located in Barcelona.

Activities in Latin America continued to be the main thrust of the project on economic change and governance, which is being carried out in close collaboration with United Nations Development Programme

(UNDP) and the Inter-American Development Bank. A conceptual paper containing three country studies was produced within the project and is being prepared for publication. These activities are likely to form the base for more UNDP-executed technical cooperation projects in the region for which the UNU would be asked to serve as the academic and scholarly research base for such cooperation. There is now also a pending proposal, from a project workshop in Barcelona in October on institutional development in the southern Mediterranean, to establish an inter-institutional information network with the UNU's Barcelona initiative as the network's centre.

Within the project on environmental governance, an inter-university study team was established during the year composed of law teachers from three universities in Barcelona and including faculty from the natural and political sciences as well as selected postgraduate students. Three seminars were held in 1995 involving graduate students, government representatives and others on a range of topics, including: policy priorities and law; environmental uncertainty and its legal implications; and the environment as a subject of law.

An in-depth case study of the project will focus on the island of Menorca in the Balears as a representative case of a vulnerable ecosystem subject to conflicting environmental and economic interests. The island comes under pressures, for example, from often rival local regulations, European Union directives and global interests.

Yet another dimension to this programme is being provided by a UNU/WIDER project on "New Regionalism and the International System: Implications for Development and Security," launched last year. Its efforts in 1995 clearly demonstrated the direct policy relevance of UNU/WIDER's work to current world problems. One project workshop, for example, brought together politicians, researchers and dignitaries from Israel, Jordan and the Palestinian Authority to discuss the importance of dialogue in the continuing Middle East peace process. The workshop was organized in collaboration with the Peace and Development Research Institute of Gothenburg University (PADRIGU), Sweden, the Harry S. Truman Research Institute for the Advancement of Peace, the Hebrew University of Jerusalem and DATA Studies and Consultation, Bethlehem, Israel.

The third stage of this UNU/WIDER project focuses on long-term development, ecological sustainability and regional conflict resolution; a workshop to initiate research activities was held in Kathmandu,



An international symposium on "Science and Culture: A Common Path for the Future" was organized jointly with UNESCO during 11–14 September 1995 at the UNU headquarters. The two keynote speakers, Commodore Jacques-Yves Cousteau, President, Equipe Cousteau (left) and Mr. Kenzaburo Oe, recipient of the Nobel Prize for Literature, exchanging opinions between the sessions.

Nepal, in mid-November. A major volume on "Globalism and Regionalism" will be published by Macmillan and several state-of-the-art reports are being prepared for publication in the UNU/WIDER publication series, *World Development Studies*.

### **Culture and development**

A joint symposium on "Science and Culture" was organized by the UNU and United Nations Educational, Scientific and Cultural Organization (UNESCO), in cooperation with the Government of Japan. The keynote addresses were given by Kenzaburo Oe, Nobel Laureate in Literature, and Jacques-Yves Cousteau. The symposium's goal was to identify a comprehensive and interdisciplinary strategy in science and culture.

A declaration after the symposium addressed the problem of bridging the perceived gulf between hard

science and culture and tradition. What is needed, it urged, is a greater notion of wholeness, a concept which permeates both the diversity theories of quantum physics and the holism in Eastern religions and philosophy. Such a melding of science and resurgent tradition might fruitfully undergird efforts to attain perpetual peace.

Research continued in the comparative study at the Asian-Pacific Center in Fukuoka City, Japan, on "views of environment in Asian countries." A third cultural exchange workshop, attended by Japanese and other Asian scholars, was held in November. Six papers on Asian views on the environment were presented. These examined environmental issues across a gamut of perspectives—from gastronomy to water problems to religion.



## New directions for the world economy

Sustainable economic growth must entail enlisting the full capabilities and energies of the human society. Seen in this light, development is a wondrous and intricate tapestry—woven of the hopes and fears, the values and beliefs that so richly endow the human endeavour. Social and economic well-being are mutually reinforcing—seen, for example, in the intimate interlinkages between human action and the biosphere. Expenditures on human capabilities can be as high yielding, in the long run, as any investments in highways, factories or other items of industrial infrastructure.

The central aim of the UNU's studies of the global economy is to improve understanding of these many underlying complexities in the world's traffic in goods and services. They have key implications for the future well-being of the developing countries. Activities are primarily centred at UNU/WIDER, the UNU's research and training centre for development economics in Helsinki, Finland.

A distinctive feature of UNU/WIDER's work is its recognition that the shaping of international economic policy cannot be the business of economists alone. It brings multidisciplinary, multinational perspectives to economic problems by scholars from many parts of the world. Other important input to this programme area is being provided by work at UNU/INTECH, the UNU research and training centre for study of new technologies in Maastricht, the Netherlands, and at the Tokyo Centre.

Activities in this area fall under three programmes:

- **Growth and sustainable development: Evolving global, regional and national structures and mechanisms**

The work in this programme focuses on new forces—like globalization, foreign investments, and currency uncertainties—which are bedeviling emerging markets in the developing world and impairing equitable growth.

- **The socio-economic dimensions of development: Employment, equity and gender issues**

The concern here is with the ultimate focus of economic growth—human development. It touches on issues of education, health, nutrition and the role of women in development.

- **Global change and perspectives**

Two important components of the current global transformation are sharply changing patterns of arms spending, and the increased impact of human action

on the environment. Both have enormous international economic implications.

### **Growth and sustainable development: Evolving global, regional and national structures and mechanisms**

Research in this programme has been directed at the impact of evolving international structures and mechanisms—in finance, trade, technology, and other areas—on growth in the three major parts of the developing world. Attention is also devoted to economic transformation in the nations of the former Soviet bloc.

In Latin America, the focus has been on how well, for example, the continent's economies are weathering the forces of globalization. Research directed at answering that question, organized by UNU/WIDER, was completed in April 1995. The subject was particularly timely in the light of the liquidity crisis in Mexico and the economic repercussions elsewhere in Latin America. Events underlined their limited capabilities to withstand the adverse consequences of globalization. The UNU/WIDER study first examined different perspectives on the question held by major schools of thought within the Latin American academic community. It then traced the impact of outside flows of capital, trade and technology on Latin American cultures. The research findings have already led to one key researcher being invited to provide policy advice and recommendations to a government in the region. The first part of the study will be published within the UNU/WIDER *World Development Studies* series.

In Asia, the research spotlight was on rural economies and the impact of new liberalization policies. The study focused on rural producers in Bangladesh, India, Nepal and Sri Lanka, examining the changes in local markets and rural production since the initiation of the liberalizing programmes. Four researchers were selected to prepare specific country studies and these studies were reviewed at a two-day workshop held in New Delhi, India, in October 1995. Scholars from throughout the South Asian region participated in the workshop and final drafts of the studies were expected by the end of the year.

In Africa, research organized by UNU/WIDER has been directed at helping to move the continent, and its resource-based developing economies, from a reluctant adjustment course to a more sustained growth path.



A UNU/WIDER project on "Resource Mobilization and Sustainable Growth in Africa" was completed by the end of 1995. Work by a research team at the Helsinki-based institute was essentially devoted to preparing manuscripts and articles for publication.

These included a booklet entitled: *International Economic Policy and Trade in Africa* to be published by UNDP; a chapter, "Efficacy of Structural Adjustment Policies in Africa," for the volume *Challenges of African Development: Structural Adjustment and Implementation* and a UNU/WIDER Research for Action series publication, *Impacts of Africa's Growing Debt on its Growth*. Two UNU/WIDER working papers were also completed during the year. The manuscript for the volume, *Mobilization of the Endowed Resources to Achieve a Sustainable Path of Growth in Africa*, is in the final publication stage.

In its continuing attention to the immense social and economic changes in Eastern and Central Europe, UNU/WIDER is analysing and summarizing the social policy aspects of those nations' frequently painful transitions to market economies. The study is entitled "Social Determinants and Consequences of Transition to the New Market Economies of the 1990s: Employment, Poverty, Equity, Demographic Development and Gender Issues." It includes comparative analyses of the social policy implications in these countries, recent trends in social development and social conflicts, and the consequences in employment and income policy and demographic development. Thus far, three reports on the study have been published in the UNU/WIDER *World Development Studies* series:

- *Emerging Labour Markets—Labour Market Developments and Transitional Unemployment in Central and Eastern European Countries*
- *Income Policy in Central and Eastern Europe in the Transition Period*
- *Demographic Development of the Central and Eastern European Region*

The project is expected to be completed by the end of January 1996. The summary volume, *The Social Determinants and Consequences of Transition in Central and Eastern Europe: Policy Implications* is now in manuscript.

Another UNU/WIDER project, "Evolving New Market Economies in Europe and Asia," analyses the sources and consequences of the successes and failures experienced by the evolving new market economies in both Europe and Asia. Research has focused on the regional and global implications of domestic change in

these regions as well as the internal and external interactions. Two policy-oriented volumes are in preparation. The first will deal with country-specific findings, highlighting the special features which enabled some countries to make adjustments with less difficulty than others and in the process, diversify their trading patterns, remove trade restrictions and stabilize their currencies. The second volume will summarize the issues of system changes, expectations and outcomes, the political economy of past errors, future-oriented historical lessons and the role of international agencies.

The "Integration of China in the World Economy" is the topic of a recently completed UNU/WIDER project which examines the internal and external conditions of economic reforms, their economic and social consequences and the impact of China's recent integration in the regional and global economy. The final manuscript containing the research findings is now being edited for publication.

At the broader international level, the High-Level Group on Development Strategy and Management of the Market Economy held its third meeting in Helsinki in July. The group was established by the Department of Economic and Social Information and Policy Analysis (DESIPA) of the UN Secretariat to assist the work of the Department in macroeconomic issues. A UNU/WIDER research adviser chaired the meeting. The previous two meetings were held with UNU/WIDER involvement in New York in 1994 and in Laxenburg, Austria, in April 1995. The research papers from the meetings will be published in book form.

The principles of overseas development aid and the need for its redirection were discussed at a November meeting in Helsinki jointly organized by UNU/WIDER and the University Centre. Participants attended from: the European Centre for Development Policy Management, the Netherlands; the Institute of Southeast Asian Studies, Singapore; the Institute of World Economy and International Relations, Russia; the Overseas Development Institute, United Kingdom; the Budapest University of Economics; the Ministry of Agriculture and Livestock Development, Tanzania; Seikei University, Japan; Organisation for Economic Co-operation and Development (OECD) and UNDP. The meeting analysed papers addressing the principles of ODA and offered suggestions on the re-orientation of international development cooperation from the perspective of both donor and recipient countries/regions.

A second volume<sup>2</sup> emanating from the study, "Trade and Industrialization Reconsidered," a project of

2 G.K. Helleiner (ed.), *Manufacturing for Export in the Developing World: Problems and Possibilities* (Routledge, 1995).



the UNU/WIDER external networks, was published during the year. The book, with five country case studies, examines problems in manufacturing for export in the developing countries.

One of the main vehicles for international economic integration is through direct foreign investment by transnational corporations (TNCs). A UNU/WIDER study has been re-evaluating the role of TNCs as engines of growth and integration. Seeking a broader development perspective, the study assesses the extent to which the interests of the transnationals coincide—and where they conflict with those of the national and regional economies in which they operate. A research conference was held in late September to review 13 papers prepared within the project. The findings are expected to be ready for publication in April 1996.

### **Socio-economic dimensions of development:**

#### **Employment, equity and gender issues**

The changing employment patterns and the structure of unemployment in African economies form the base of an ongoing UNU/WIDER effort. The project takes a policy-oriented approach in examining changing employment patterns by sector, occupation, age and gender. It has also looked at the subject along relevant dichotomies e.g., formal versus informal, self-versus wage-employment, private-sector versus public-sector employment, and includes an analysis of labour market legislation and organization.

Thirteen studies of Sub-Saharan African countries have been commissioned. Research is expected to reveal new information on the role of the informal sector in employment creation, the structure and role of labour market institutions in Africa, and the role of small enterprises in the labour market. A joint workshop of UNU/WIDER and the UNU's Institute for Natural Resources in Africa (INRA) on "Changing Employment Patterns and the Structure of Unemployment in Africa" was held in Accra, Ghana, in July. The Employment and Development Department of the International Labour Organization (ILO) collaborated in the organization of the meeting. Research findings from this project also contributed to a UNU/WIDER Conference on Human Settlements (in preparation for Habitat II) held in August 1995.

UNU/WIDER served as the focal point for the UNU research contribution to the World Summit for

Social Development held in Copenhagen in March. The output from the Conference on the Politics and Economics of Global Employment held in Helsinki in June 1994 was compiled in a two-volume book, *Global Employment: An International Investigation into the Future of Work*<sup>3</sup>. The first volume was delivered to each national delegation at the Copenhagen meeting; an official launching ceremony for the new book was attended by President Martti Ahtisaari of Finland, President Arped Göncz of Hungary, Percival Patterson, Prime Minister of Jamaica, and Paulo Renato Costa Souza, Minister of Education of Brazil.

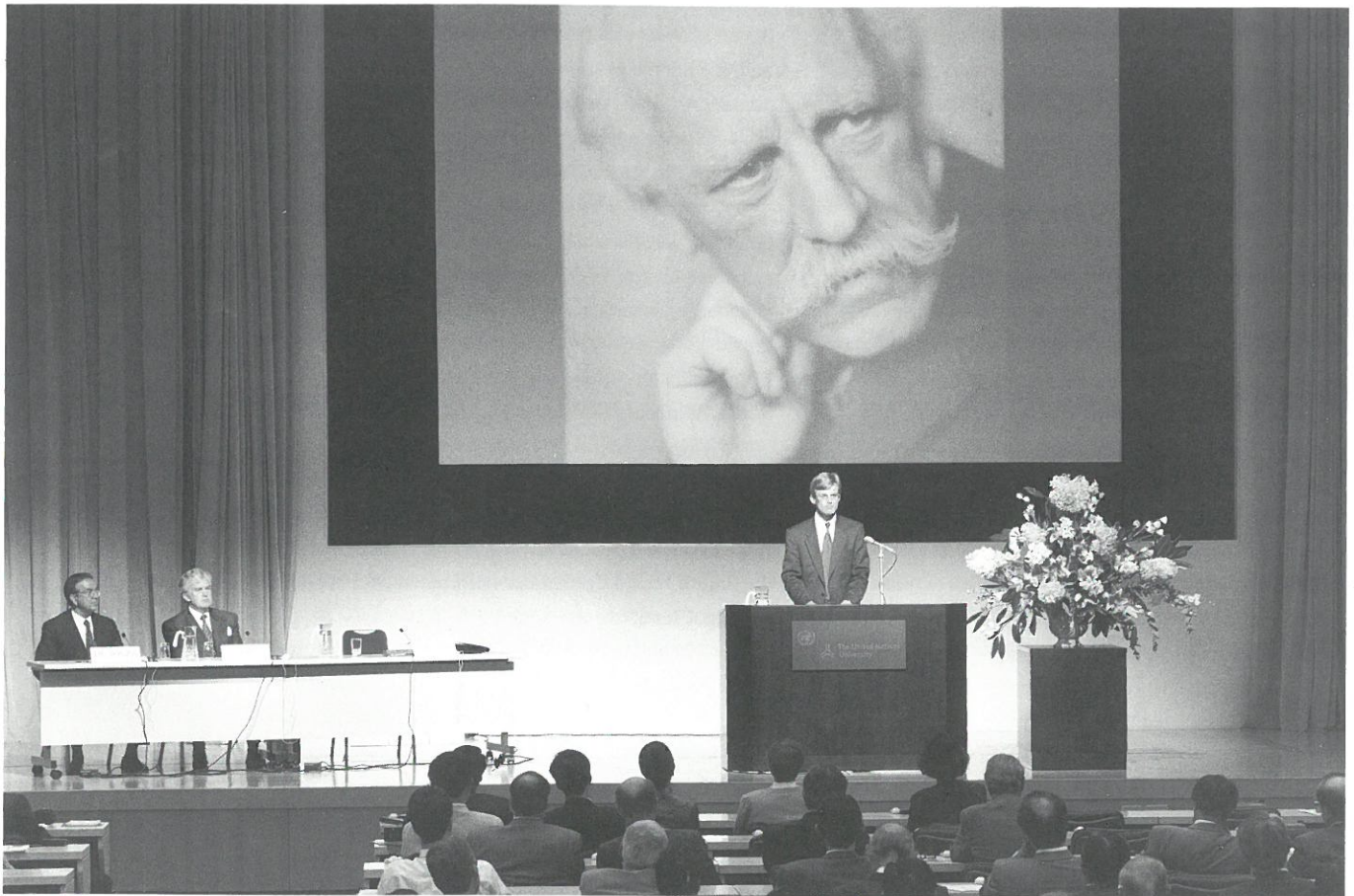
During the year, UNU continued its important focus on issues related to women and development. A delegation led by the Rector comprising researchers and staff from UNU/WIDER and UNU/INTECH participated in the Fourth World Conference on Women held in Beijing, China, in early September. A new UNU/INTECH volume, *Women Encounter Technology*<sup>4</sup>, was presented at the Conference's governmental forum.

UNU/INTECH's project, "Monitoring the Impact of New Technologies on Women's Industrial Work in Asia," continued to assemble information on the impacts which new technologies have on employment and entrepreneurial opportunities for women in nine countries chosen to reflect the economic and market diversity of the Asia-Pacific region. The project, conducted jointly with the United Nations Development Fund for Women (UNIFEM), is partially funded by the Ministry of Development Cooperation of the Netherlands.

A project workshop on "Industrial Policies for the 21st Century: New Technology and Women's Work" was held in New Delhi in late March. Among the participants were 17 senior civil servants from eight Asian countries. Seven individual country workshops were also organized during the year—in Bangladesh, China, India, Indonesia, the Republic of Korea, Malaysia and Sri Lanka. A policy-oriented dialogue meeting between NGOs and government bodies is planned in April 1996 in collaboration with the Economic and Social Commission for Asia and the Pacific (ESCAP) and UNIFEM. The principal researcher in the project addressed the plenary session of the NGO Forum at the Beijing conference and a workshop on "Technological Change and Women's Work in Asia" was also organized by project leaders at the NGO Forum. The principal researcher was recently appointed as the Chairperson of the Gender Advisory

3 M. Simai with V. Moghadam and A. Kuddo (ed.), *Global Employment: An International Investigation into the Future of Work, Volume One* (Zed Books, 1995).

4 S. Mitter, *Women Encounter Technology: Changing Patterns of Employment in the Third World* (Routledge/UNU Press, 1995).



The 1995 Fridtjof Nansen Memorial Lecture on "Norway as International Peacemaker" by Mr. Jan Egeland, State Secretary in the Norwegian Ministry of Foreign Affairs, was organized jointly with the Royal Norwegian Embassy and the Middle East Institute of Japan, on 6 October 1995 at the UNU headquarters.

Panel of the UN Commission on Science and Technology for Development.

Efforts continued during the year under a UNU/WIDER project studying effects on women's employment of economic restructuring—including structural adjustment, privatization, marketization and the shift to export orientation. The project is also exploring questions of social services and policies and labour legislation that relate to women, work and family. The final manuscript for the research findings is expected to be completed in early 1996.

**Global change and perspectives**

The ongoing transformation of the global military sector, largely as a result of the ending of the East-West ideological clash, has been the focus of a continuing effort by UNU/WIDER. The project looks at both the supply and demand sides of security requirements. Research efforts will lead to a set of recommendations to international institutions about how the restructuring process might be managed with a minimum of fragmen-

tation and violence. Two volumes have resulted from this project; the manuscripts were completed by the end of the year.

"Global Change and Modelling," a project begun in 1991, involves a network of institutions cooperating in an effort to improve understanding of the complex, dynamic and often non-linear systems underlying global change. Efforts in this area are closely linked with the work on eco-restructuring (under programme area 3). It seeks to generate information to build alternative plausible scenarios for the 21st century that take into account new and complicated questions of energy use, resource demands, population growth and production configurations.

A major UNU conference on the "Sustainable Future of the Global System" was held at the UNU Tokyo headquarters in October 1995. The meeting was a follow-up on an April workshop at the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria. A special focus of this global modelling is the Asia-Pacific region.



## Sustaining global life-support systems

Of all the dangers on the road to the 21st century, the most threatening could be our own species—in the myriad daily human acts which are threatening the thin band of earth, sea and sky we call the biosphere. On an increasing scale, human activity is disrupting the systems that support all life on our planet.

While the environment has been a UNU concern since its establishment 20 years ago, its special focus in recent years has been on sustainable development: growth that meets the needs of the present while recognizing those of the future. The University's accumulated experience is being put to use in helping implement Agenda 21, the far-reaching set of development marching orders that emerged from the deliberations of the 1992 Rio Earth Summit.

The UNU's work on life-support systems is organized within five programmes:

- **Eco-restructuring for sustainable development**

Sustainable development calls for a major shift in international consumer patterns. This programme is seeking to generate necessary new knowledge in environment, engineering, economics and energy use essential for managing such a transformation. Activities are based at the UNU's Tokyo headquarters and are implemented in close cooperation with UNU/WIDER in Finland and UNU/INTECH in the Netherlands.

- **Integrated studies of ecosystems**

This programme looks at sustainable development from the perspective of the carrying capacity of ecosystems and their ability to support, resist or recuperate from long-term impacts and transformations. Ongoing projects are coordinated by the UNU Centre.

- **Information systems for environmental management**

The concern here is with developing the intellectual tools for sound environmental management and strengthening human capacities to achieve it. Programme activities are primarily carried out from the Tokyo Centre.

- **Natural resources in Africa**

In this, the United Nations University Institute for Natural Resources in Africa (UNU/INRA) addresses the continent's urgent needs for human resource development and institutional capacity building in order to achieve more effective conservation, management and rational utilization of natural resources for

sustainable development. UNU/INRA is headquartered on the Legon campus of the University of Ghana, Accra, Ghana, with a Mineral Resources Unit (MRU) sited in the School of Mines at the University of Zambia in Lusaka, Zambia.

- **Environmental law and governance**

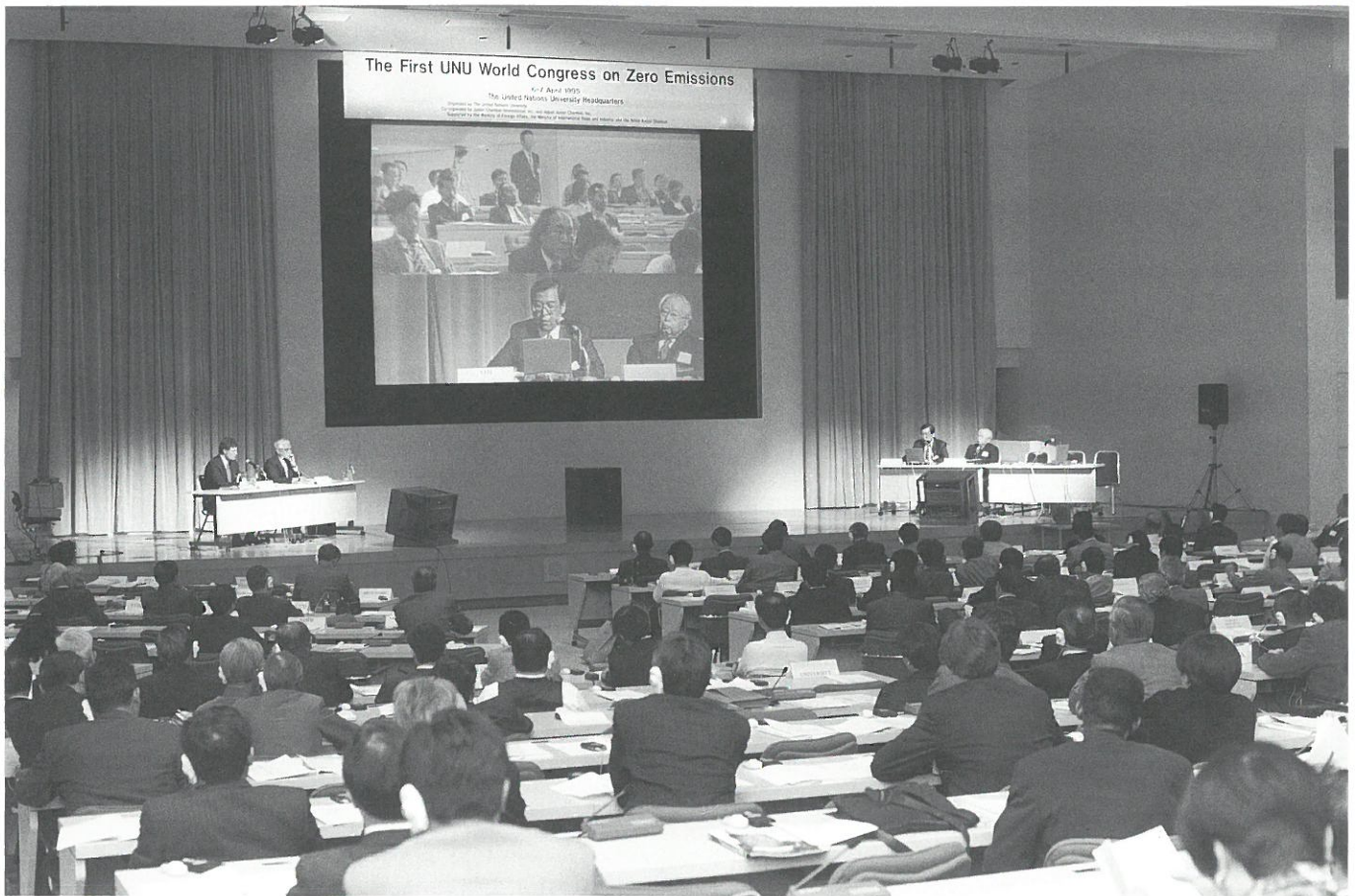
This seeks to take into account a whole new range of thorny international legal dilemmas which must be dealt with in more rational governance of the environment. Activities are presently carried out primarily at the Tokyo Centre, but are closely linked with academic work in the Study of Governance initiative in Barcelona, Spain.

### Eco-restructuring for sustainable development

UNU activities in this area during the year were focused on extending the understanding of the new notion of "industrial metabolism." The concept, which was developed during earlier University work on the human dimensions of global change, refers to the physical processes that convert raw materials and energy into finished products.

Analysis of the conditions for successful governance related to the environment in 14 developed and developing countries has been the focus of a UNU/WIDER project on "National Environmental Policies: A Comparative Study of Capacity Building." The first phase of research involved compilation of information on the content of case studies in Chile, China, Denmark, Germany, Japan, the Republic of Korea, Latvia, the Netherlands, Nigeria, Russia, Sweden, Switzerland, the United Kingdom and the United States. A second phase of research reviewed the case studies at a workshop held at the Science Centre Berlin in early May leading towards the completion of activities by year's end.

Structural transformations in both industrialized and developing countries over the past 25 years have resulted in the formation of a new pattern of international division of labour. Relocation of the manufacturing sector has become particularly evident in the Asia-Pacific region where ASEAN countries and China are following in the footsteps of the newly-industrializing economies in Asia. This is likely to result in increased energy consumption by these countries coupled with water and air pollution and other environmental problems. UNU is seeking to measure the environmental



UNU organized the First World Congress on Zero Emissions at its headquarters on 6–7 April 1995 to mark the completion of the first year of efforts under UNU's Zero Emissions Research Initiative (UNU/ZERI).

impacts of industrialization and trade expansion in Asia, to assess the varying policy linkages between the environment and trade and industrialization and propose possible policy remedies with respect to economic and technological cooperation between developing and industrialized countries. Project activities started in late September and are expected to be carried out at the UNU Institute of Advanced Studies (UNU/IAS) in 1996.

Closely linked to these activities is a UNU project on "Sustainable Global Future: Scenario Building for the 21st Century" already described within the programme on Global Change and Modelling. The UNU Conference on the Sustainable Future of the Global System which was held in Tokyo during 16–18 October 1995 in cooperation with the National Institute of Environmental Studies, Japan, and sponsored by the Environment Agency of Japan and the UN Commission on Sustainable Development, constituted the first step of an ongoing effort by the UNU's Institute of Advanced Studies (UNU/IAS) to search for a better articulation of the meaning of sustainable development, what problems sustainable development presents to the international community and how these problems might be addressed. The conference saw presentations on

medium- and long-term future global scenarios of the environmental impacts of economic development as well as scenarios of sustainable development in the context of global resource constraints.

UNU is also seeking to understand the situation of different categories of households in different countries, their present structure and the nature of the major structural changes to which they are exposed, and alternative ways of dealing with these changes through a project on "Post-market Approaches to Ecological Economic Development." A case study of Indonesia will indicate how suited an approach using input-output economics and social accounting matrices (SAMs) will be for analysing different development scenarios. The project will also describe the requirements for an improved household classification scheme.

A pilot project was initiated by UNU/INTECH in 1994 to examine the legal framework for environmental control in a developing country and to examine the effectiveness of enforcement of environmental law. The project followed on a April 1994 workshop on the "Transfer of Environmentally Sustainable Technology" financed by the Ministry of Development Cooperation of the Netherlands. The pilot project involved field





research in Mexico aimed at determining how local and foreign firm's technological decisions were influenced by the legal framework for environmental protection in Mexico. A second study to examine of behaviour at the level of the firm in a less industrially developed country has been carried out in Tanzania. The pilot studies have led to the preparation of a proposal for a three-year project on "Environmental Regulation, Globalization of Production and Technological Change." The European Commission has accepted the proposal and project activities will analyse the impact of environmental regulation on technology and competitiveness of European Union industry, particularly in relation to newly industrializing and less developed countries, and the way in which these are reflected in the pattern of trade, investment and employment.

UNU continued efforts during 1995 to develop curricula and training programmes to strengthen capacity building in developing countries in the field of restructuring for sustainable development. UNU and the Asian Institute of Technology (AIT) organized a training course on planning for sustainable development in the Asia-Pacific region from 17 July to 4 August 1995 at AIT in Bangkok, Thailand. UNU provided 12 full fellowships for the training course and 12 additional fellowships were supported by the Governments of Australia and New Zealand and by UNDP in the Philippines. A similar course was initiated in 1995 at the Tata Energy Research Institute (TERI) in New Delhi, India. Other training links have been developed with Keio University in Japan.

Closely related to the improvement of industrial efficiency is the UNU project on minimizing emissions, known by the acronym ZERI (for Zero Emissions Research Initiative). In April 1995, the University organized the First World Congress on Zero Emissions. The Congress brought together business leaders, scientists and policy makers to discuss the efficacy of the zero emissions standard and to learn more about the UNU initiative.

The meeting was conducted at sites simultaneously in Asia, Europe and the United States via video connection on the Internet, the rapidly-growing international network of interconnected computers and their users. Mr. Ingvar Carlsson, Prime Minister of Sweden, and Dr. Federico Mayor, Director-General of UNESCO, made live video interventions via Internet. Special efforts have been made during the year to set up electronic networks using the Internet to support the UNU/ZERI. The most active network is the Integrated Biosystems Network which has some 210 experts participating electronically.

The Congress was also the location for the launching of a new UNU book, *Steering Business Towards Sustainability*, edited by F. Capra and G. Pauli (UNU Press, 1995). The UNU/ZERI project is preparing for the Second UNU World Congress on Zero Emissions to be held in Chattanooga, Tennessee, United States, in May 1996.

A distinguished member of the Royal Swedish Academy of Sciences, was appointed by the Rector as chair of the UNU/ZERI Scientific Advisory Committee. In their review, the Committee concluded that "ZERI is not only feasible, it is essential." During the year, two feasibility studies related to key aspects of the project were prepared. The Center for the Integrated Survey of Natural Resources, in China, was commissioned to undertake a study on integrated bio-systems for agro-industrial waste. The study concluded that a two-year research project was needed to conduct pilot studies in China, Colombia, Fiji, Namibia and Tanzania. A second study on materials separation technologies was undertaken based on a document on "steam explosion" from the Institute for Wood Chemistry of the Latvian Academy of Sciences. The Oak Ridge National Laboratories, United States, together with the Institute of Technology, Bandung, Indonesia, and the Brazilian National Science Council are expected to formulate specific project activities to be undertaken in 1996.

One additional UNU/ZERI feasibility study on colour use without colour pigments will be started in 1996. The subject area is one under consideration in a ZERI attempt to identify potential uses for technologies taken directly from nature, as, for example, the reflected colours from bird plumage.

### **Integrated studies of ecosystems**

UNU work related to Disaster-Prone Regions and Disaster Reduction was interrupted dramatically by the Great Hanshin earthquake which occurred just as a workshop on "Urban Earthquake Mitigation" was being organized in Osaka on the morning of 17 January 1995. During the year, activities within the project were consolidated leading towards the establishment of the Global Network on Natural Disaster Risk Management (GLO-DISNET) jointly with Stanford University, the International Center for Disaster-Mitigation Engineering (INCEDE) of the University of Tokyo, and the World Seismic Safety Initiative (WSSI). The network will facilitate the exchange of information on research and training activities as well as direct experiences in disaster risk management and mitigation among researchers and disaster managers. Emphasis is



being placed on the inclusion of developing countries in the network. For this purpose, a task force session was organized in connection with the Pacific Science Congress in Beijing, China, in June. The meeting on "Harnessing the Communication Revolution: Towards a Global Disaster Network" was instrumental in broadening knowledge of GLO-DISNET and in ensuring coordination with other initiatives in the field. A GLO-DISNET homepage with extensive information and data links has been established on the World Wide Web (<http://blume.stanford.edu:8080/>). Other more traditional means of dissemination are also being included to ensure that developing country participants are also able to have access to the information.

UNU organized several workshops or seminars on topics relevant to the project in 1995. In March, an international symposium on "Small Islands and Sustainable Development" included discussion of the vulnerability of small island nations to natural disasters. In May, the UNU cooperated with the Nanyang Technological University (NTU), the Singapore College of Insurance and the World Seismic Safety Initiative (WSSI) in organizing a workshop on "Catastrophic Risk Management for the Insurance and Reinsurance Industries" in Singapore. In September, UNU organized a workshop on "Urban Earthquake Risk Management: Preparing for the Big One in Tokyo" in which leading experts from Japan and abroad in earthquake engineering and disaster management and officials from city governments in the capital region as well as utility companies participated. The objective was to discuss what would happen if a major earthquake hit the Tokyo Metropolitan area. In addition to workshops, dissemination efforts have included a volume entitled *The Long Road Back: Community Recovery from Industrial Disasters* edited by Professor James K. Mitchell of Rutgers University, United States, to be published by UNU Press. Editing of a manuscript emanating from the 1994 UNU workshop on "Natural Disasters in Megacities" is now being completed.

A UNU project on the "Management of International Waters" seeks to promote sustainable management of water bodies that fall within the jurisdiction of more than one country. This would require not only environmentally and technologically sound management options, but also careful analysis of historical, political, economic, social and legal issues. UNU, as an autonomous academic organization, facilitates dialogue between policy makers based on sound scientific principles. Project activities focused on two

main international fora. The Asian Water Forum was organized together with the International Water Resources Association (IWRA) and the United Nations Environment Programme (UNEP) at AIT in January and February 1995. The forum focused on management issues of three major river basins in Asia: the Mekong, the Salween, and the Ganges-Brahmaputra. As a follow-up to the forum, UNU is planning to undertake a study of the Salween river system with a view to studying the possibilities of establishing a "Salween Committee" along the lines of the "Mekong Committee."

The UNU's Central Eurasian Water Forum on "Aral, Caspian and Dead Sea Water Crises and Perspectives" was organized in March 1995 in Tokyo and Shiga, Japan, in collaboration with the Japan International Cooperation Agency (JICA), UNDP and the International Lake Environment Committee Foundation (ILEC). The objective was to study the hydro-politics and eco-political decision-making process around the three main inland seas in Eurasia and their related environmental problems. In October, the UNU hosted the UNESCO/International Hydrology Programme Symposium on "Rivers and People in Southeast Asia and the Pacific: Partnership for the 21st Century." During the symposium, a *Catalogue of Rivers of Southeast Asia and the Pacific* was launched and efforts were made to design an international project in river hydrology in the region. Two books<sup>5</sup> related to UNU work in this area were published in 1995.

The project on "Mountain Ecology and Sustainable Development" continued to make inputs into the policy-making process of the UN system related to sustainable development of mountain and highland areas. Within the UN inter-agency group for the follow-up of the United Nations Conference on Environment and Development (UNCED) Agenda 21, Chapter 13, Managing Fragile Ecosystems: Sustainable Mountain Development, UNU cooperated with the Food and Agriculture Organization of the United Nations (FAO), the UN Task Manager, and other participating agencies and NGOs. In the process, UNU was assigned to take the lead role in research into issues pertaining to sustainable development of mountains. UNU also participated in the second inter-agency coordinating meeting hosted by the International Potato Centre (CIP) in Lima, Peru, in February 1995, as well as in the follow-up NGO consultative meeting. The UNU project coordinator was invited to make a presentation to the UN Commission on Sustainable Development, demonstrating the recognition given to UNU in this area.

<sup>5</sup> A.T. Wolf, *Hydro-politics along the Jordan River: Scarce Water and Its Impact on the Arab-Israeli Conflict* (UNU Press, 1995) and M. Murakami, *Managing Water for Peace in the Middle East: Alternative Strategies* (UNU Press, 1995).



HIH Princess Takamado giving a congratulatory message at a UNU symposium marking the fiftieth anniversary of the United Nations and the twentieth anniversary of UNU, "Message from the Arctic for the 21st Century," held on 24 October 1995 at the UNU headquarters.

The main research activities during the year were focused on Asia. A project on floods in Bangladesh continued with the active participation of Bangladeshi and Indian scholars. This effort is aimed at questioning the conventional wisdom that recurrent floods are a consequence of erosion and deforestation in the Himalayas. The project also has a strong capacity-building component involving the training of local graduate students. A project on the impact of development on socio-economic conditions and environment in minority areas of north-west Yunnan, China, which is supported by the Ford Foundation, is being implemented together with the Yunnan Academy of Social Sciences. The second Andean Mountain meeting was organized in La Paz and Huarinilla, Bolivia, in April jointly with the International Mountain Society (IMS), the International Union for Conservation of Nature and Natural Resources (IUCN) and UNESCO. The theme of the meeting was "Sustainable Mountain Development: Managing Fragile Ecosystems in the Andes" and was focused on the potential for creating a corridor of protected areas across the Andes. UNU continued to support the publication of the journal *Mountain Research and Development* as an important forum for

publication of scientific articles on issues pertaining to ecology and social and economic development in mountain and highland areas.

A joint initiative of UNU, UNESCO and the Third World Academy of Sciences (TWAS): the "South-South Cooperation Programme for Environmentally Sound Socio-Economic Development in the Humid Tropics" was established in 1992 following UNCED. The lead agency for the project is UNESCO and UNU's inputs are mainly within the context of the Population, Land Management and Environmental Change (PLEC) initiative and UNU/INRA. Activities have been funded through the UNU-UNESCO Collaborative Study Programme with funds-in-trust from the Japanese Ministry of Education, Science, Sports and Culture. In January 1995, the second steering committee meeting was organized at the Mananara-Nord biosphere reserve in Madagascar. The objective of the meeting was to review status reports on biosphere reserves in Africa, Asia and Latin America and to plan future collaborative research and exchange activities.

Analysis of forestry resources utilization in both developed and developing countries has been the focus of a UNU/WIDER study on "the Forest in the South



and the North: Transition from Deforestation to Sustainable Forest Policies in Redressing Global Warming.” Activities of the project which started in June 1994 have been devoted to looking at country-level causal analyses and deforestation rates in 90 tropical countries according to independent variables causing deforestation. Other activities have concentrated on an econometric analysis of deforestation in the Brazilian Amazon. Progress has been made in specifying and estimating the model of the dynamics of Amazon deforestation as well as the consequences of deforestation for carbon dioxide emissions. The final results of the project, which is being conducted by the Finnish Forestry Research Institute, the European Forest Institute and the Instituto de Pesquisa Económica Aplicada, Brazil, are expected in mid-1996.

#### **Information systems for environmental management**

The UNU project on “Environmental Impact Assessment (EIA) Methodologies” reached its final test and reporting phase during the year. The objective of the project is to produce a textbook on EIA methodologies that can be used for training developing country professionals involved in the preparation of EIA of development projects.

Following on activities in 1994, the UNU has begun to implement a set of activities within a major project on “Environmental Monitoring and Analysis in the East Asian Region: Technology Transfer and Environmental Governance.” The three-year research, training and dissemination project will involve some 80 scientists from nine countries in the East Asian region. Training of scientists from the region in analysis and in the generation of standard reference materials will be a first step. A major objective of the project is to promote calibrated techniques and methodologies in the region to produce reliable data for further interpretation. Scientists will analyse pollutants in rice and grain foods, soils and industrial wastes, fish, water (synthetic), sediment, and atmospheric pollution. The project will include the use of specialized equipment to assist in calibration and knowledge and technology transfer and is being supported by the UNEP Regional Coordinating Unit for the East Asian Seas Action Plan and has received financial support from the Japanese private sector through the Japan Foundation for the UNU. The UNU completed the project implementation report for the UNU-UNESCO/IOC-UNEP project on Asia-Pacific Mussel Watch. The report presents the conclusions of a planning workshop for the Asia-Pacific Mussel Watch

held in November 1994, and includes the implementation plan for the project.

In March, the UNU organized an international symposium on “Small Islands and Sustainable Development.” UNU held a one-day planning meeting prior to the meeting to provide inputs for its Small Island Network. The Network is seen as a means to link UNU research and scholars in issues related to small islands. During the year, utilizing electronic media, the UNU has developed a substantial membership of interested academics and researchers and has held a number of electronic seminars. A homepage called “Island Gateway” (<http://sunsite.sut.ac.jp/island/>) was launched on 1 December to share research findings and to link organizations and networks associated or active in small island related issues.

The Fourth UNU Environmental Forum was organized on the topic “Population, Land Management and Environmental Change” in May. It had been originally planned for January, but the Great Hanshin Earthquake made it necessary to postpone the meeting. The meeting was based on research carried out under the UNU PLEC initiative. In addition to conceptual papers on land management and biodiversity in agricultural areas, “farmers” participation and the role of women, case studies focusing on northern Thailand, Papua New Guinea, and the Brazilian Amazon were presented. The Forum was organized in cooperation with the UNEP International Environmental Technology Centre (IETC), with support from the private sector in Japan.

#### **Natural resources in Africa**

The activities of the UNU Institute for Natural Resources in Africa (UNU/INRA) during 1995 were primarily devoted to project formulation and feasibility studies on key aspects of the Institute’s future work. A major preoccupation of the Institute has been the completion and extension of the field survey phase of its earlier work. The field surveys have been prepared on water, mineral and plant resources and indigenous African food crops. Feasibility studies on a possible reference pedological facility for soil, plant and water as well as a reference herbarium tissue culture and germplasm conservation facility were started in 1995. The two facilities will be developed for research and will serve UNU/INRA collaborators as locations for analysis as well as for use by visiting scientists and members of the UNU/INRA College of Research Associates. Project proposals on land degradation monitoring and environmental resources inventorying



and integrated watershed research, development and demonstration were completed in December 1995. These studies and proposals will form the basis for fund-raising initiatives in early 1996.

Preparations are under way to publish nine additional field surveys, with 14 other surveys still in various stages of editing or revision prior to publication. Summaries of all 43 field surveys commissioned by UNU/INRA will be completed in 1996.

In June, UNU/INRA formally commissioned the UNU/INRA computer workstation of the mineral resources unit at the University of Zambia, Lusaka. The facilities include computers and accessories, geological mapping equipment, image processing software and audiovisual equipment. The workstation will form an integral part of the work of the unit. The purchase of the equipment for the workstation was made possible by a grant from the OPEC Fund.

Although training courses originally planned by UNU/INRA were postponed during the year, progress was made in the preparation of training materials for indigenous African food crops and useful plants. A workshop making use of these materials is expected to take place in early 1996.

### **Environmental law and governance**

Important but unsettled international legal issues frequently arise in the environmental arena—as, for example, with ecological threats that pay no heed to national boundaries. The UNU is attempting to meet an educational need here in organizing courses in various parts of the world. A Global Faculty Training Workshop was organized in Barcelona in July. The workshop trained young university law faculty members in the teaching of international environmental law. It brought together some 18 professors, associate professors and lecturers from 16 countries as participants, and assembled a top-class training faculty of professors, legal

advisers and UN officials. A UNU Teacher Package was produced comprising prepared lecture notes, modules, reference materials, textbooks and a guide on teaching methodologies. It is hoped that participants will use the UNU materials in teaching international environmental law at their home institutions. A videotape of the workshop is also available for use by university faculty as a teaching tool.

The workshop helped to strengthen the global network in the field, and UNU plans to stage several regional workshops and where appropriate, national workshops, to support the “training of trainers” multiplier effect. Where possible, participants from the global workshop will be invited as resource persons at the regional workshops.

In early December, the UNU organized an East Asian Faculty Training Workshop on International Environmental Law as the first follow-up to the Barcelona workshop. The Teacher Package concept was employed in focusing on issues affecting the East Asian region. Fourteen university faculty members from 10 countries in the region, as well as a distinguished teaching core, participated in the workshop.

UNU also provided expertise for a UNEP/United Nations Institute for Training and Research (UNITAR) Training Workshop on Environmental Law and Policy, and participated in the UNEP-IUCN meeting of legal experts on the teaching of environmental law. Other activities involved possible first steps to implementing a UNU-UNEP joint project, establishing a Master of Laws course in Environmental Law at the University of Colombo, Sri Lanka. The Rector and the Executive Director of UNEP exchanged letters in 1995 agreeing to promote further collaboration in the field of training in environmental law, research related to its implementation and compliance of environmental accords. The cooperative effort will also support academic institutions in this field in the developing world.



## Advances in science and technology

Modern technology holds out bright promise for the poor and hungry of the global society—it has enormous capacity to inform and improve the human condition. Technology's reach extends into the daily lives and cultures of societies everywhere. But advances along the information superhighway have a way of either bypassing developing societies or imposing on them something totally inappropriate to their needs or cultural mores.

The UNU's work in this area is directly concerned with the impact of science and technology on development, and its potentials to bring about sustainable and viable growth processes. The activities fall under four programmes:

- **Socio-economic implications of new technologies**  
From the miller's stone to the microchip, technologies have been embedded in social history. Work in this programme examines the political and socio-economic impacts of new technologies and of national technology policies. The UNU's efforts in this area in 1995 were carried out by UNU/INTECH in Maastricht.
- **Applications of biotechnology for development**  
A regionally focused set of activities aim at building capacities in developing countries to harness the potential of biotechnology for producing food of sufficient quality and quantity, for providing inexpensive and sustainable sources of energy and for improving human health and overall quality of life. UNU/BIOLAC in Caracas, Venezuela, coordinates activities within this programme.
- **Software technology for developing countries**  
Computer software directed at problems like flood control is the sort of "eco-technology" needed in sustainable development. Precisely this sort of modern information tool is being explored at the UNU's International Institute for Software Technology (UNU/IIST) in Macau. Through capacity-building activities, aimed at Third World researchers, lecturers and industry software engineers, UNU/IIST is addressing the software technology needs of developing countries.
- **Microprocessors and informatics**  
Rapidly changing technology threatens to "lock out" the developing world from the benefits of the micro-electronics revolution. The focus of this programme is on "informatics," the way in which information is produced, processed and utilized. It provides post-

graduate training in microprocessor technology through regional training workshops around the world. The training efforts are largely coordinated at the International Centre for Theoretical Physics in Trieste, Italy.

### Socio-economic implications of new technologies

UNU/INTECH research has continued to look at the variety of production spin-offs by technology institutes in China. Special interest focuses on such enterprises in the information technology fields as does the evolution of reform policies. Additional field work in China in April and May investigated the transformation of R&D and technological systems in the Chinese machinery industry. Data analysis was continuing at year's end with research output expected during the first half of 1996. The possibilities for using a similar methodology on country comparisons, particularly with India, were also explored.

The project on "Export Competitiveness in Post-Apartheid South Africa" completed research during 1995. Project investigators gave course materials on the research outcome at a series of seminars held over a three-week period in South Africa. UNU/INTECH is considering how best to use these course materials including possible publication. The materials may also contribute to the course work of the UNU/INTECH's joint Ph.D. Programme with the Maastricht Economic Research Institute (MERIT) of the University of Limburg, the Netherlands.

Field work on the project on "Import Liberalization, Industrialization and Technological Capability in Sub-Saharan Africa" was carried out during the first three months of 1995. The project is assessing the impact of import liberalization on industrial performance and on the generation of technological capabilities during the 1980s in selected African economies. More than 40 firms were interviewed in Kenya, Tanzania and Zimbabwe in two industrial branches. Researchers at Queen Elizabeth House, Oxford, and the Economic and Social Research Foundation in Dar-es-Salaam, Tanzania, two principal cooperating institutions in the project, analysed the data obtained in the field work. The manuscript containing the research findings was expected by year's end.



The project on "New Technologies and Research and Development Systems in Southern Europe," launched in 1994 has been comparing technology policies in Greece, Portugal and Spain. It has focused in particular on the relation between national research and development systems to relatively weak industrial systems. In a second phase of the project field work was conducted this year in Greek research centres in computer technology, material science, biotechnology and chemical engineering. The next stage has involved comparative empirical research in R&D institutes in Portugal and Spain and on the particular case study of Application-Specific Integrated Circuits (ASIC) design capabilities as a result of European and national technological development programmes.

The UNU/INTECH project on "New Technologies, Economies and Scales and Scope and Location of Production in Developing Countries" was completed in 1995. A volume containing country studies, overall conclusions and implications and policy recommendations was submitted to the publisher in December. The study found that the diffusion of microelectronics-based control systems and production and design equipment in Brazil, India, Mexico, Thailand, Turkey and Venezuela was larger than expected and was accompanied by new forms of production organization which in a few cases were more advanced than in equivalent firms in developed countries. Reductions in equipment setting-up time permit the production of a wider range of goods, with economies of scope, while at the same time providing flexibility to attune production schedules more closely to time variations in demand.

Papers from a 1994 workshop on "Foreign Direct Investment, Economic Structure and Governments" in Rotterdam were published in a volume containing country case studies of China, Indonesia, Japan, Mexico, New Zealand, Spain, Sweden and the United Kingdom. As part of the project, UNU/INTECH has developed a global technology and economic development database (GLOB-TED); it is being used to analyse the role of different parameters of development in determining relative attractiveness of countries to multinational enterprises. Results of the project will be published in 1996. A conference on "Productivity, Technical Change and National Innovation Systems in Latin America in the 1990s" was held in Marbella, Chile, in August. The discussion of UNU/INTECH's approaches and research results initiated its work on national systems of innovation. The meeting was jointly organized with the Economic Commission for Latin America and the Caribbean (ECLAC).



One of the areas of UNU research activity is biotechnology. The UNU Programme on Biotechnology in Latin America and the Caribbean is the focal point for the University's work in this area. Photograph: PPS

### Applications of biotechnology for development

Training courses were organized under UNU/BIOIAC, the UNU's Programme for Biotechnology in Latin America and the Caribbean, at leading biotechnology centres in Argentina, Guatemala, Mexico and Venezuela. The workshops familiarize participating scientists with the latest developments in the specific applications of biotechnology. During 1995, 23 UNU fellowships were also awarded.

A one-week course was held early in the year on the "molecular basis of tumor growth control, differentiation and cell cycle" at the Laboratory of Tumor Cell Biology of Instituto Venezolano de Investigaciones Científicas in Caracas. Another course on the "analysis and manipulation of the plant genome" was organized at the Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional in Irapuato, Mexico, in March. A two-week course on "the applications of biotechnologies to agriculture" was held in May at the Instituto Nacional de Tecnología Agropecuaria in Morón, Argentina. An advanced course on "biochemical engineering applications in environmental biotechnology and cleaner



production” was held at the Instituto Centroamericano de Investigación y Tecnología Industrial in Guatemala in September. An advanced two-week training course on the “application of biotechnical processes” was held at the Universidad Nacional Autónoma de México in Cuernavaca, Morelos, in October.

The Brucellosis Research Network, in operation since 1985, continued its activities. A network workshop in April in Valdivia, Chile, was attended by 18 scientists from Argentina, Brazil, Canada, Chile, Colombia, Mexico, the United States and Venezuela. A second workshop, on the “application of biotechnology to tuberculosis research,” was held in Caracas in June; it brought together 33 scientists from 15 countries.

A new set of international scientific linkages—to be known as the Tuberculosis Research Network—is now being established with initiative from researchers in Latin America, Canada, the Netherlands and Spain.

### **Software technology for developing countries**

UNU/IIST activities emphasize the development of reliable software over a wide spectrum of applications important to developing countries. Interest in 1995 focused specifically on (1) real-time, reactive, hybrid and safety critical systems; and (2) software support for infrastructure systems.

Postgraduate courses organized by UNU/IIST in 1995 included a two-week course in formal software development in Hanoi in February; two two-week courses—one in the spring, one in autumn—of lectures and student seminars at the University of Macau; a two-week course in formal software development and design techniques for real-time systems using duration calculi in June in Penang, Malaysia; and a two-week course on formal software development and design techniques for real-time systems in Bangalore, India, in December.

A full-day seminar on the formal development of large-scale software systems, and real-time hybrid and reactive systems design was held in Zhuhai, China, in March. A full-day seminar on temporal logic of reactive systems and formal software development techniques was organized in August in Ulaanbaatar, Mongolia.

UNU/IIST research projects were carried out in the area of hybrid systems, typically control systems with embedded computers using durational calculi as the formal tools. Such projects were also conducted in the specification and development of reactive systems. The projects addressed reactive systems using general

duration calculi and investigated other theories of reactive systems such as compositional verification and refinement calculi. Projects on geometric reasoning and programmes were also an activity of UNU/IIST aimed at defining a specification language for the constructive geometric computing which characterizes the geometric problem domain. The projects also sought to design an algorithm to translate a specification writing in SLG into a set of theorems to be proved, from which programmes can be extracted and which can provide interesting applications in the areas of robotics, geodetic or aerial survey.

Advanced joint development projects at UNU/IIST have primarily focused on software support for infrastructure. Ongoing projects include one on railway computing systems (RaCoSy) which is concerned with an overall determination of a normative software architecture that will allow coexistence of, data exchange between and mutual invocation among arbitrary railway computing system software packages. The project includes joint research, training and development of selected software packages. The project has received considerable attention in Europe and Asia and UNU/IIST is planning to disseminate the results of RaCoSy to other developing countries.

Another project has involved road management systems (RoMaNS) and the basic information technology required for toll way booth monitoring and control. Digital multiplexed telephone systems form another advanced development and training project of UNU/IIST. This effort is initially concerned with basic telecommunications protocol aspects for a new digital multiplexed radio telephone system which is under research and development by the Advanced Science and Technology Institute of the Government of the Philippines.

UNU/IIST also initiated during the year an advanced research and development project on “Aviation Business and Air Traffic” which will also have a specific training focus. An exploratory aspect of the project is studying matters related to air traffic control, including air space, airline time tables, air traffic, and flight bookings. The project will also study airline operations, particularly information infrastructure of main airline operations from planning to daily operations to statistics gathering. The project aims to assist emerging newly industrializing countries in South and East Asia.

Library monitoring and command systems is the subject of another UNU/IIST effort which has involved research, advanced development, training and M.Sc. supervision. The project aims at training fellows and





Macau M.Sc. thesis students in advanced software technology issues. It also involves researching and developing a normative software architecture for a distributed computing and communications system of libraries, publishers, book distributors and borrowers and will include the development of a demonstrator system for training librarians and library users.

In a continuing project "Manufacturing Industry Systems," UNU/IIST has sought to bring the latest software technology research and development results to bear on new developments in rapidly emerging newly industrializing countries such as Indonesia, Malaysia and the Philippines. The project is developing and providing training in analyses of the manufacturing industry application domain, its software requirements, and in a normative software architecture for a computing system that not only integrates most of any one manufacturing enterprise's information, computing and intra-communications needs, but also integrates across several manufacturing enterprises and between these and service functions such as banks.

Another UNU/IIST effort aims at investigating a normative software architecture for citizen and visitor information, routing and reservations. It will involve University of Macau M.Sc. students and include issues of large-scale multimedia, distributed and shared information based systems. It will also serve as a demonstrator to private and public sectors authorities for possible projects which can be undertaken with UNU/IIST.

The "globally distributed, geographic and demographic information infrastructures project" is concerned with understanding geographic and demographic information system-based decision support systems and their common user access in a system that supports planning decision-making. It might involve, for example, experiments with and development of construction plans (e.g., land, water or waste management) which require data and mathematical modelling across a wide spectrum of geographic and demographics information.

UNU/IIST continued to develop a user interface for multilingual systems adapted to information that includes scripts of different languages that do not follow the left-to-right, horizontal style of European languages. Two projects under development at UNU/IIST will address computerized information and decision support systems at a ministry of finance and a university monitoring and control system which will study the information infrastructure and command

work flow and transaction processing of medium to large colleges and universities.

UNU/IIST has also provided consultancy services to several organizations and governments during the year and made numerous presentations and interfaced with software development groups in many countries.

### **Microprocessors and informatics**

Activities during 1995 continued to strengthen the capacities of universities and research institutes in developing countries in the area of informatics and communication. A microinformatics project is coordinated from a base at the International Centre for Theoretical Physics (ICTP) in Trieste, Italy. The Government of Italy has provided support for activities in this area.

A January workshop on computer networking was held at Pune University in India. It focused on computer networking in developing countries using low-cost equipment and adapting to existing low quality communication lines. A course on computerized data acquisition techniques was held in La Paz, Bolivia, in February in cooperation with the International Centre for Physics in Bogotá, Colombia.

A regional workshop on parallel processing and its applications was held in Yaoundé, Cameroon, in early August. Eleven lecturers and instructors from Cameroon, France, Gabon and India covered the fundamental aspects of parallelism (e.g., architecture, programming, environments and algorithms), including its applications in mathematics, mechanics, physics, chemistry and meteorology. A special session was devoted to an exchange of research activities being carried out by participants.

A three-week regional college on microprocessor-based real-time control of equipment was held in autumn at the University of Cape Coast, Ghana. The 38 participants focused on facilities that real-time operating systems offer when designing and implementing computer-controlled instruments. The course was primarily intended for physicists and engineers working with computer-controlled systems.

An October workshop on "telematics" at ICTP dealt with the fundamental aspects of communications and computer technologies and their role in the evolving information networks of the future. Topics included switching technology, signaling aspects, networks and protocols, multi-megabyte services and multimedia, satellite networks and wireless communications technologies.



A three-month workshop on academic computer networks in developing countries was organized in October in Trieste, Italy, to assist scientists from selected developing country universities to establish computer network infrastructure at home and connect them to the global academic networks.

Preliminary activities on three research and development projects were initiated during the year. These will study: (1) universal fuzzy controller systems based on microprocessors; (2) a silicon PIN-diode-based detector for X-ray mammography; and (3) a DaAS gigabyte switch for teraflop parallel machines.

The "Research and Advanced Teaching in Computer Science" project, jointly coordinated with the Institut national de recherche en informatique et en automatique at the University of Yaoundé, is meant to strengthen the capacity of that University's Department of Computer Science as a regional centre of excellence in microinformatics as well as to promote regional cooperation in computer science. Each year, eight to ten lecturers are invited from France and from other African

countries to give two-week courses at Yaoundé. In 1995, these included courses on computer vision, computerization of enterprises, parallel programming standards; parallel operating systems, and neural networks. A two-week course on computer architecture was given at the University of Ouagadougou, Burkina Faso, in June and a course on scientific computation was given in September at the University of Benin in Cotonou.

A meeting of the African Regional Research Group on Decision Support Systems was organized at the Institut Africain d'informatique, Libreville, Gabon, in April. This follows on a decision at the Second African Conference on Research in Computer Science held in Ouagadougou, Burkina Faso, in October 1994 to establish a regional project on decision support systems. The outcome of the Libreville meeting was the establishment of a multi-centred research network and the production of a comprehensive project document on the project to be used in mobilizing funds for the project.



## Population dynamics and human welfare

The impact of unchecked population growth permeates the great concerns of our age—hunger, war, environmental destruction. Rising tides of humanity threaten to inundate all our best efforts at creating a just, harmonious and sane society. These swelling populations are helping to make our cities unworkable, our farms unproductive, and our Earth unlivable. The combined impact is particularly cruel to millions of innocent children.

Population is perhaps the most intimate of all the forces that affect human society. As such, it is susceptible to much heat and emotion—and badly in need of dispassionate scientific investigation. The UNU multidisciplinary work on the interlinkages of population, hunger, and environment problems comes under three programmes:

- **Population, urbanization and development**

The work here examines the implications of population growth and structure, urbanization trends, and international migration and the resulting socio-economic consequences for unemployment and poverty, particularly in developing countries.

- **Population, land management and environmental change (PLEC)**

The PLEC programme investigates the consequences for land management, hence for the environment, of continuing population growth at the global, regional and local levels.

- **Food and nutrition for human and social development**

The persistence of hunger casts an appalling moral shadow on our age. Work in this programme comprises a long-standing commitment by UNU to address major nutrition problems of developing countries and to strengthen the capacities of developing countries to confront national food, nutrition and health problems.

### Population, urbanization and development

Work in this programme in 1995 was centred on the project on “the Mega-city and Urban Development.” It is estimated that the urban sector of the developing countries will absorb virtually all the increase in population over the next three decades. The project has dealt with the dynamism of demographic changes, the sources and consequences of economic development and social transformation and the effective management required to enhance the quality of life, living conditions and the environment of mega-cities.

The project held a pre-United Nations Conference on Human Settlements (Habitat II) Tokyo Conference on World Cities and the Urban Future at the UNU Centre in August, in cooperation with the National Institute for Research Advancement (NIRA). It brought together speakers from 14 countries to review case studies from Asia and the Pacific, Africa, Latin America, Europe, and North America. Emphasizing the impacts of globalization on urban growth, a series of recommendations on world cities and urban development has been drafted and will be submitted to the Habitat II secretariat. UNU will publish a book, *World Cities and the Urban Future* based on selected papers from the Pre-Habitat II Tokyo Conference.

In another contribution to Habitat II, UNU/WIDER organized a conference in Helsinki in August, in cooperation with the Finnish Ministry of Environment, on “Human Settlements in the Changing Global Political and Economic Processes.”

Three volumes on urban problems are expected to be published by UNU Press in 1996: *Emerging World Cities in Pacific Asia*; *Mega-cities in Latin America*; and *The Challenge of Urban Growth in Africa*.

### Population, land management and environmental change (PLEC)

This programme focuses on land resources and biological diversity in managed agro-ecosystems among small holder farmers in tropical and sub-tropical areas of Africa, Asia and Latin America. It analyses questions of sustaining production under pressure of population growth, migration, penetration of markets, transformation of land-use systems, and changing agricultural systems. Full account is taken of the traditional agricultural systems and practices that have evolved over time in the regions concerned. Emphasis is given to the development of a participatory research methodology and capacity building. The goal is to produce researched policy-relevant options for preservation of biodiversity in small-holder agricultural systems.

An international collaborative research initiative, PLEC is based on a comparative network of locally-based research clusters; five are now operational in East and West Africa, Montane Mainland South-East Asia, Papua New Guinea and Amazonia, and a sixth is being developed in the Caribbean region. On an inter-programmatic level, the African clusters maintain close



The hill tribe communities in Northern Thailand are experiencing rapid socio-economic change with associated environmental impacts studied by the UNU PLEC project.  
Photo by J. I. Uitto, UNU

links with UNU/INRA. The programme also collaborates actively with the UNU Mountain Ecology and Sustainable Development project.

The initiative has received financial support from the UN Population Fund (UNFPA) and project development funds from the Global Environment Facility (GEF) through UNEP. An important activity in 1995 was the preparation of a full funding proposal for GEF.

Through PLEC, UNU played a key role in the international symposium on "Montane Mainland South-East Asia in Transition" held at Chiang Mai University, Thailand, in November. The symposium was organized with a number of national institutions: the Chinese Academy of Social Sciences/Kunming, the Institute of Rural Economy of Yunnan Academy of Social Sciences, the Viet Nam Upland Management Working Group, the Thailand Development Research Institute, CARE International-Thailand, and international institutions including the Ford Foundation, the East-West Center, the World Resources Institute, the International Institute on Environment and Development, South-East Asian Universities Agroecosystems Network, the

Centre for International Forestry Research and the International Centre for Research in Agroforestry.

The results of the first phase of the project's research were reported in a special issue of the journal *Global Environmental Change: Human and Policy Dimensions* (September 1995) published by Butterworth-Heinemann, in cooperation with UNU.

Within the project on "Critical Zones in Global Environmental Change," three books<sup>6</sup> were published by UNU Press in 1995. Further case studies are being undertaken jointly with the International Geographical Union (IGU) Commission on Critical Environmental Regions and Situations. A related book<sup>7</sup> emanating from an earlier related project was also published by UNU Press in 1995.

### **Food and nutrition for human and social development**

Activities within this programme have continued within six global projects, with active involvement with other UN organizations. The programme has also attracted

6 J.X. Kasperson, R. E. Kasperson and B.L. Turner II (eds.), *Regions at Risk: Comparisons of Threatened Environments* (UNU Press, 1995); Nigel J.H. Smith, Emanuel Adilson S. Serrão, P.T. Alvim and I.C. Falesi, *Amazonia: Resiliency and Dynamism of the Land and Its People* (UNU Press, 1995); and H. Brookfield, L. Potter and Y. Byron, *In Place of the Forest: Environmental and Socio-economic Transformation in Borneo and the Eastern Malay Peninsula* (UNU Press, 1995).

7 T. Nishizawa and J. I. Uitto (eds.), *The Fragile Tropics of Latin America: Sustainable Management of Changing Environments* (UNU Press, 1995).



Rapid population growth is one of the driving forces of environmental change in the fragile highlands of Papua New Guinea. Photo by J. I. Uitto, UNU

extrabudgetary resources in excess of US\$900,000. The work continued to be directed from its coordinating office in Boston, Massachusetts, United States, but plans were developed for the gradual transfer of activities to a new research and training coordinating centre on the campus of Cornell University in Ithaca, New York. Efforts to mobilize funding for this coordinating centre were undertaken during the year.

In 1995, the applications of rapid assessment procedures (RAP) using qualitative anthropological techniques to programme design, evaluation and improvement continued to spread. The best evidence for this has been the growing demand for the RAP manual which has gone into its fifth printing. The manual is being revised and updated with a training component being added. Two specialized RAP publications have been developed and widely distributed: "Guidelines for the Rapid Assessment of Social, Economic and Cultural Aspects of Malaria" and "Rapid Assessment Procedures: Ethnographic Method to Investigate Women's Health."

The manuscript for a set of RAP guidelines on the "Study of AIDS-related Behaviour" is undergoing final revision. A number of earlier RAP publications have had to be reprinted or have been translated into other languages. A RAP training workshop was held in Dakar, Senegal, in September with support from the

French Ministry of Cooperation and UNICEF. RAP techniques have been included in the courses offered at the Institute of Nutrition at Mahidol University in Thailand. A proposal has been developed for a new type of workshops for 1996, identified as "RAP-Plus" for policy makers, planners and research coordinators that will provide them with some familiarity with both the quantitative and qualitative survey techniques and their integrated use.

UNU efforts in the area of identifying and promoting measures to control iron deficiency, the most prevalent and neglected of the micronutrient deficiencies, continued in 1995. The first reports from a UNU-coordinated multicentre study of the feasibility and effectiveness of weekly, as opposed to daily, supplementation have been encouraging. The results from China, Guatemala, Malaysia and the United States show that weekly administration is equally effective in raising hemoglobin levels and was virtually without side effects. The studies are continuing in Guatemala, Indonesia and Mali. Funding for this initiative has been received from the Micronutrient Initiative of Canada for an investigators meeting in Bangkok, Thailand, in February 1996, at which a meta-analysis of the data will be undertaken.

With support from UNICEF, UNU has studied the prevalence of iron deficiency anemia in Kazakhstan and Uzbekistan in collaboration with the Institute of



Nutrition in Almaty, Kazakhstan. The study reviewed the high prevalence of iron-deficiency anemia among pregnant women, women of child-bearing age and children in these two countries. Based on the results of this study, an iron supplementation and iron fortification project have been designed for implementation in 1996.

The UNU has continued to participate in the UN Administrative Committee on Coordination Subcommittee on Nutrition (ACC/SCN) meetings. A meeting of the Group for Control of Iron Deficiency (GCID) was held in June just prior to the ACC/SCN annual meeting. It was attended by all international and bilateral agencies concerned with nutrition and also included some NGOs. Each agency or organization reported on its activities related to the control of iron deficiency anemia, but the major part of the meeting was taken up by a presentation and discussion of the UNU-sponsored multicentred trials of weekly iron administration.

In partnership with the International Union of Nutritional Sciences and with the partnership of the World Health Organization (WHO) and FAO, UNU continued to promote the International Dietary Energy Consultative Group (IDECG). At the annual ACC/SCN meeting in June, the report of the IDECG project and its publications received special commendation. A major activity within this area in 1995 was the editing of the proceedings of the workshop on "Protein-Energy Requirements" held in London in December 1994. It has now been published as a supplement to the *European Journal of Clinical Nutrition* and will be reprinted by the Nestlé Foundation. The report will highlight important findings announced at the London meeting, viz., that the critical gap in knowledge of human amino acid requirements was that for lysine, which appears to be the limiting amino acid in the predominately cereal diets of most developing countries. This information may prove essential for judging the desirability of lysine fortification of cereals. The project is also sponsoring a set of field tests of two portable respirometers, which are relatively portable and inexpensive, to measure the energy cost of human activity.

UNU has been joined by FAO in a global effort to improve the quantity and quality of food composition data worldwide. UNU's role continues to be the establishment and linking of regional databases. As a follow-up to the UNU-FAO organizational meeting for AFRO-FOODS in Accra, Ghana, in September 1994, a meeting of Francophone African countries was held in Dakar, Senegal, in February 1995. The Instituto de Nutrición y Tecnología de los Alimentos, Universidad de Chile, has

assumed responsibility for LATINFOODS in South America. A grant from the International Development Research Centre (IDRC), Canada, has provided a high-capacity computer and UNU awarded fellowships for training in food composition database management at the Wageningen Agricultural University in the Netherlands and database programming in Palmerston North, New Zealand.

An organization meeting of NORAMFOODS regional database for Canada, Mexico and the United States took place at the US Department of Agriculture (USDA) in Beltsville, Maryland. One outcome of the meeting was the agreement of the USDA to assume responsibility for the NORAMFOODS regional database. Another important achievement was the participation of the International Food Distributors Association (IFDA) which is the repository of nutrient composition data for processed foods in international trade. Both the USDA and IFDA agreed to use the INFOODS tagnames which would permit free exchange of data with other regional and national databases in the INFOODS system.

Two task force meetings were organized in Beltsville under UNU-FAO-IUNS auspices. One established quality tags for food composition data that will be incorporated into the INFOODS system and the other provided guidelines for a future meeting of the UNU-sponsored IUNS committee on "Terminology and Nomenclature for Food Composition Databases."

An organizational INFOODS meeting for Middle Asia (MASIAFOODS) which will include China, and North and South Korea was held in Beijing, China, immediately following the 7th Asian Congress on Nutrition in October. An organizational INFOODS meeting for the Arab Gulf States was held in Dubai, United Arab Emirates, in November in order to set up GULFOODS. Participating countries included Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

The International Food Intake Directory project continued to provide important input to epidemiological studies and summarize all food intake data available over the last 40 years from as many developing countries as possible. Some of the Latin American and Asian summaries have already been printed. In 1995, new data was received from 14 African countries. Additional input from other developing nations is pending.

The UNU quarterly journal *Food and Nutrition Bulletin*, now in its 16th year, has the distinction of being one of the few publications that reach developing country nutrition and health workers. UNU also continued to publish the quarterly *Journal of Food Composition and Analysis* jointly with Academic Press.



## Building capacities: UNU postgraduate education

The UNU training and fellowship programme supports primarily young scholars and scientists from developing countries. It aims to assist them in understanding complex problems in their global context, and in developing their analytical skills. Such training also helps build capacities at institutions in developing countries that are part of the UNU global networks. The programme responds to the UNU Charter directive to alleviate the intellectual isolation that can affect developing country scholars.

In the 20 years since UNU training began operations, some 1,400 fellows have completed their studies. While this number may seem small, it should be emphasized that UNU fellowships are aimed at the "teachers of teachers." Many former fellows are now in positions where they can influence development and educational policies in their own nations. UNU training, thus, has a ripple effect in the international intellectual community. In 1995, 80 UNU fellows finished their work, while another 82 began their training.

In the area of geothermal energy, there were 16 fellows, from China, Egypt, El Salvador, Indonesia, Jordan, Kenya, Nepal, the Philippines, Romania and Uganda. Seven Latin American fellows were being trained in remote sensing technology at the Instituto Nacional de Pesquisas Espaciais (INPE) in Brazil. Seven UNU fellows from Africa and Asia were in the renewable systems of energy programme at the Indian Institute of Technology, Delhi, India. There were five fellows from Asia in solar energy utilization at Anna University, Madras, India; and three UNU fellows from Fiji, Mongolia and the Solomon Islands in seismic and cyclone hazard mitigation at the Asian Disaster Prevention Centre, Asian Institute of Technology, Thailand.

One UNU fellow from Argentina, two from Cuba and one from Uruguay are following the master's degree course in science and technology policy at the Universidade Estadual de Campinas, Brazil. Twelve fellows in biotechnology are in training at various institutions in Latin America; 15 UNU fellows from China, India, Indonesia, Mongolia, the Philippines and Viet Nam are learning software technology at UNU/IIST in Macau.

The rolls also include: one fellow from Niger studying in microinformatics at the University of Yaoundé, Cameroon; one UNU fellow from China at the University of California, Davis, United States, in

mountain ecology and sustainable development; two UNU fellows from Ethiopia and Nigeria in food technology at the Central Food Technological Research Institute (CFTRI), India; one UNU fellow from Venezuela in food and nutrition at the Instituto de Nutrición de Centro-América y Panamá (INCAP), Guatemala; two UNU fellows from Africa joined the master's programme in applied human nutrition at the University of Nairobi, Kenya; one UNU fellow from Zimbabwe at the Institute for Crop and Food Research, New Zealand; and five UNU fellows from China, India and Viet Nam are receiving training at the National Food Research Institute (NFRI), Tsukuba, Japan.

In addition to the training provided under the regular UNU fellowship Programme, short training courses with durations varying from one to six weeks were organized during the year. A six-week course in natural hazard reduction was held in Switzerland; and five two-week training workshops in specialized areas of biotechnology were organized in Argentina, Guatemala, Mexico and Venezuela.

Eight two-week postgraduate courses in computer science were held at the University of Yaoundé, Cameroon; a training workshop on computer networking was held in India, a course on computerized data acquisition technologies was held in Bolivia, and training workshops on international environmental law were organized in Spain and at the UNU headquarters in Tokyo. More than 500 persons participated in UNU training courses during the year.

A highlight of UNU training in 1995 was the Award Ceremony of the UNU-Kirin programme at the UNU headquarters in April. The fellows each gave brief presentations of their research results and were presented with a UNU certificate confirming the completion of their training. A unique part of the Kirin Fellowship scheme is the follow-up research support which is provided to former fellows. The second group of UNU fellows who completed their research activities in April were provided with such support through institutional contractual agreements with their home institutions.

A notable expansion in UNU training activities in 1995 was the establishment of the UNU International Leadership Academy in Amman, Jordan. This initiative, supported by the Government of the Hashemite Kingdom of Jordan, is designed to create a community of potential future leaders, who have shared a common



training experience in global issues. Preparatory activities started in 1995; the University has already concluded the necessary legal instruments to locate the offices of the new UNU academy on the campus of the University of Jordan.

The UNU Institute of Advanced Studies (UNU/IAS), at its new premises located next to the UNU headquarters, launched a set of postgraduate training activities in 1995. A training course on planning for sustainable development in the Asia-Pacific Region was jointly organized with the Asian Institute of Technology in Bangkok. A Ph.D. internship programme at UNU/IAS has been started and plans are under way to initiate activities with Keio University in Japan and the Tata Energy Research Institute (TERI) in India for a high-level human resource development effort in the area of eco-restructuring. There are also plans to organize a two-week course in synchrotron radiation at the Japan's National Laboratory for High Energy Physics in early 1996.

Following on earlier discussions with the Government of Iceland, a feasibility study for a programme on fisheries training, funded by the Icelandic Government, is under way. Pending the positive recommendations of the feasibility study, it is expected that a UNU Fisheries Training Centre could be established with the support of the Icelandic Government, and the first group of UNU fellows might start postgraduate training in fisheries as early as April 1997 if the feasibility study recommendations are positive.

At UNU/INTECH in the Netherlands, a Ph.D. internship scheme has continued and a group of new interns took up their positions at the Institute. The number of interns has had to be reduced owing to the need to develop the infrastructure for a joint Ph.D.

programme which is under discussion with the Maastricht Economic Research Institute (MERIT) of the University of Limburg. A new initiative, with the Commission for the European Communities, brought three young Ph.D. researchers to UNU/INTECH for periods of six months beginning in mid-1995 and continuing through the end of 1996.

Discussions on a joint Ph.D. programme on "Technological Change and the Economy" with MERIT continued in 1995. The content of the course work, discussed by the UNU/INTECH Board in 1994, has been established. Subsequent negotiations on the administrative and financial basis for the programme have been concluded and a group of 15 students were selected for the first course. Three of the candidates from developing countries were unable to continue in the course due to institutional and financial reasons, but the course work component of the course is under way. Examinations held in December were meant to help determine which of the candidates will be allowed to continue on to the dissertation phase.

UNU/IIST training activities involved the training of 12 fellows in 1995 including four from China, one each from India and Mongolia and three each from the Philippines and Viet Nam. The period of training ranged from 9–12 months. These fellows are seconded from partner institutions in developing countries to be trained in high-level software development methods and research techniques, and part of their training requires them to contribute to the ongoing research and development projects of the Institute.

UNU/IIST's postgraduate and postdoctoral courses seek to enhance awareness of and provide comprehensive training in most advanced software technology development techniques within the Institute's areas of

#### 1995 UNU fellowships by programme area

<b>Sustaining global life-support systems</b>	
Geothermal energy .....	16
Natural resources and the environment .....	23
<b>Advances in science and technology</b>	
UNU/IIST including Ph.D. internships .....	15
UNU/BIOLAC .....	12
Microinformatics .....	1
Other fields .....	4
<b>Population dynamics and human welfare</b>	
Food and nutrition .....	11
<b>TOTAL:</b>	<b>82</b>





focus: software support for infrastructure systems and reactive and hybrid systems. In addition, UNU/IIST offers off-shore courses which can involve a larger number of participants. In 1995, the Institute conducted seven such off-shore courses including those for University of Macau students. The courses involved over 125 participants. The Institute also provides

supervision for M.Sc. and Ph.D. students and several of the fellows at UNU/IIST from China spent their period of study at the Institute as Ph.D. interns. Increasingly, UNU/IIST's academic staff are becoming adjunct, adjoint or honorary professors at the seconding university department or research institutes from which the fellows are selected.

### **UNU fellowships and training**

Eighty-two UNU fellowships were awarded in 1995, bringing the total fellows trained by UNU since 1976 to 1,400.

UNU fellows in 1995 came from Argentina, Bangladesh, Bolivia, Cameroon, Chile, China, Colombia, Costa Rica, Cuba, El Salvador, Egypt, Ethiopia, Fiji, India, Indonesia, Jordan, Kenya, Madagascar, Mongolia, Myanmar, Nepal, Niger, Nigeria, Peru, the Philippines, Romania, Solomon Islands, Tanzania, Uganda, Uruguay, Venezuela, Viet Nam and Zambia.

Seventy-three per cent of the UNU fellows trained in 1995 received training at institutions in developing countries; twenty-seven per cent received training at institutions in industrial countries.

The main areas of UNU training in 1995 included: applied human nutrition, biotechnology, seismic and cyclone hazard mitigation, food composition data, food science and technology, geothermal energy, microinformatics, remote sensing technology, renewable energy systems, science and technology policy and software technology.

About 500 individuals attended UNU training workshops in 1995.



## Dissemination of research findings



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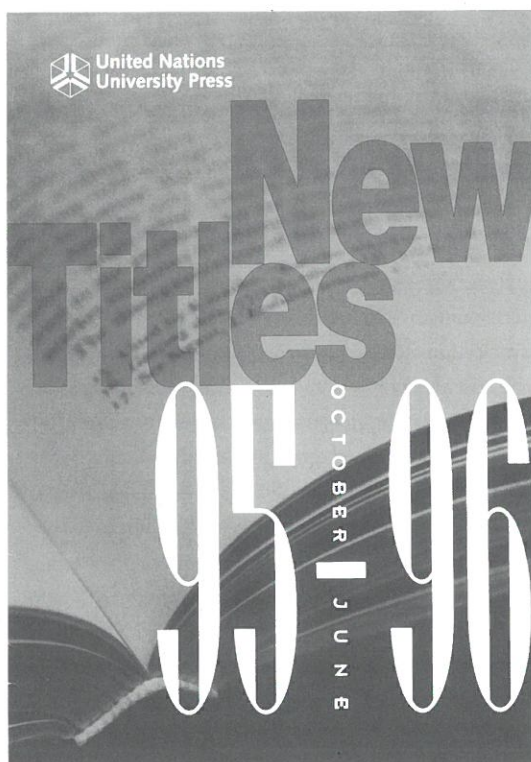
United Nations  
University Press

Dissemination of the results of the work being carried out by United Nations organs is a key activity to ensure that governments of Member States, academic institutions and the public at large are aware of the contributions of the UN system towards improving the human condition. This is particularly true of the UNU, which, unlike other UN organs, does not focus its work on a specific "topic," such as health, labour, food and agriculture, or trade, but rather carries out research on different topics. Disseminating "research results" is a particularly difficult task because they sometimes appear not to focus on real issues. Nevertheless, such research is crucial to developing a clearer understanding of complex problems, such as peace and conflict resolution, or environmentally sustainable development. Such understanding is necessary to develop and select appropriate policy approaches for solving such problems. Dissemination of research results to scholars and experts studying similar problems is important because it helps to corroborate findings, evoke critical comments or indicated possible new directions of research.

In 1995, dissemination of results of UNU research continued to be carried out mainly through the publication of books, proceedings, reports, papers, journal articles, and journals, through public information activities, such as meetings, press interviews, press

releases, and the publication of newsletters and reports, and through public meetings of an academic nature.

Publishing was carried out mainly by the University's publishing arm, as well as in collaboration with other scholarly publishers in different countries. Books published during the year covered a number of areas, including sustainable development, the United Nations system, water problems, development economics, urban problems, political and administrative development, social development issues (drugs and violence), gender studies and environmental problems, (including a new series on critical environmental regions). Notable among publications for the year were: *The United Nations System: The Policies of Member States*, edited by Chadwick F. Alger, Gene M. Lyons, and John E. Trent; *State, Society, and the UN System: Changing Perspectives on Multilateralism*, edited by Keith Krause and W. Andy Knight; *Hydropolitics Along the Jordan River: Scarce Water and Its Impact on the Arab-Israeli Conflict*, by Aaron Wolf; *Managing Water for Peace in the Middle East: Alternative Strategies*, by Masahiro Murakami; *Steering Business Toward Sustainability*, edited by Fritjof Capra and Gunter Pauli; *Amazonia: Resiliency and Dynamism of the Land and its People*, by Nigel J.H. Smith, Emanuel Adilson S. Serrão, Paulo T. Alvim, and Italo C. Falesi; *Regions at*



*Risk: Comparisons of Threatened Environments*, edited by Jean X. Kasperson, Roger E. Kasperson, and B.L. Turner II; *In Place of the Forest: Environmental and Socio-economic Transformation in Borneo and the Eastern Malay Peninsula*, by Harold Brookfield, Lesley Potter and Yvonne Byron; *Emerging World Cities in Pacific Asia*, edited by Fu-chen Lo and Yue-man Yeung; *Global Employment: An International Investigation into the Future of Work* (two volumes), edited by Mihály Simai; *Women Encounter Technology*, edited by Swasti Mitter and Sheila Rowbotham; and *Ethnicity and Power in the Contemporary World*, edited by Kumar Rupasinghe and Valery A. Tishkov.

UNU Press books were reviewed in more than 40 journals worldwide during 1995. Among the notable reviews are the following: "...highly recommended this book to those...interest[ed] in Middle East water issues....It serves as an excellent international watershed case study....[and]...as a strong example of a thorough research project with a disciplinary framework," (review of *Hydropolitics Along the Jordan River in Water Resources Development*, August 1995); "*Managing Water for Peace in the Middle East* makes a valuable technical addition to....literature on water-related conflict potential and its alleviation in the Middle East and other arid portions of the world, (review in *Environment*, vol. 37, no. 7, September 1995); "[*State, Society and the UN System*] departs from and complements earlier work by focusing on the policies of seldom studied smaller states," (review in

*International Journal*, summer 1995); and "...das Buch [ist] lesenwert...Jeder Leser kann sich selbst ein bild davon machen, ob er es für sinnvoll, möglich oder wünschenswert hält, die Prinzipien der Ökosysteme auf die Wirtschaftssysteme zu übertragen," (review of *Industrial Metabolism: Restructuring for Sustainable Development*, edited by Robert U. Ayres and Udo E. Simonis in *IÖW & VÖW Informationsdienst*, 1/95).

Requests for permission to use material from UNU books continue to grow. Most requests come from universities in the United States wishing to reprint material in planned publications or to photocopy material for classroom use. Organizations requesting permission included: UCLA, Stanford University, Boston University, Harvard Law School, Simon Fraser University, Cornell University, University of Calgary, University of Tokyo, East-West Center, Australian National University, Sagami Women's University, the International Labour Organization (ILO), and the World Hunger Program.

During the year, UNU/WIDER, on the occasion of its tenth anniversary, launched a new publication series *World Development Studies*. The first five issues in the series became available during the year: *Small Island's Big Issues: Crucial Issues in the Sustainable Development of Small Developing Islands*; containing papers presented at the Global Conference on the Sustainable Development of Small Island Developing States in 1994; *Emerging Labour Markets: Labour Market Developments and Transitional Unemployment in Central and Eastern European Countries*; authored by Dr. Arvo Kuddo, a former Minister of Labour and Social Affairs in Estonia who is currently a Research Fellow at UNU/WIDER; *Food Security in Africa: Concepts, Measurement, Policy and Reality* authored by Dr. Siddig A. Salih, Senior Research Fellow at UNU/WIDER; *Economic Reforms, Women's Employment and Social Policies: Case Studies of China, Viet Nam, Egypt, and Cuba*, edited by Dr. Valentine M. Moghadam, currently Senior Research Fellow at UNU/WIDER; and *The Limits of the Global Village: Globalization, Nations and the State*, by Professor Hernando Gómez Buendía, UNU/WIDER Sasakawa Chair in Development Economics at UNU/WIDER.

UNU/INTECH published a number of volumes during the year including *The Spread of Japanese Management Techniques to Developing Countries*, by Raphael Kaplinsky with Anne Posthuma (Frank Cass and UNU Press, January 1995); *The Politics of Technology Policy in Latin America*, Maria-Inês Bastos and Charles Cooper (Routledge/UNU Press, 1995);



*Exporting Africa: Transformation, Trade and Industrialisation in Sub-Saharan Africa*, by Samuel Wangwe (Routledge/UNU Press, 1995); *Women Encounter Technology* (mentioned previously), and *The Pursuit of Science and Technology in Sub-Saharan Africa under Structural Adjustment*, by John Enos, (Routledge/UNU Press, 1995). UNU/INTECH also issued numerous working papers and discussion papers; and a number of journal articles and book chapters by UNU/INTECH researchers were published during the year.

UNU/IIST dissemination efforts included publication of a number of papers and articles. UNU/IIST disseminates software technology through the training of its fellows, through its research and advanced development projects and through off-shore postgraduate and postdoctoral courses. During 1995, research staff of the Institute, fellows and sponsored collaborators gave numerous presentations both in Macau and internationally.

The editing of the proceedings of a conference jointly organized by the PLEC programme of UNU, UNU/INRA and the University of Ghana in Accra in 1992 were completed in 1995 with publication scheduled in early 1996 under the title: *Sustaining the Future: Economic, Social and Environmental Change in Sub-*

*Saharan Africa*, edited by George Benneh, William B. Morgan and Juha I Uitto.

UNU Press moved a step closer to electronic publishing with an agreement late in the year to jointly publish with Monash University in Australia a CD-ROM version of *Food Habits in Later Life: Cultural Approaches*, edited by mark L. Wahlqvist et al. This approach is being used because the volume, with over 1,000 tables, can be made more useful to researchers if produced in CD-ROM format. The UNU also made progress in the development of several homepages and in electronic bulletin boards and conferences using the Internet. It is expected that additional progress will be made in this area in early 1996.

Four UNU journals were also issued during the year. These were: *Food and Nutrition Bulletin*, *Journal of Food Composition and Analysis*, *Mountain Research and Development*, and *ASSET (Abstracts of Selected Solar Energy Technology)*.

During 1995, the University published numerous books, reports, papers and journal articles. Annex 4 below provides a complete list of UNU titles issued during the year. Publications sales income from UNU Press publications came to US\$275,000 in 1995.

#### About UNU books

Since 1975, the UNU has published 401 books through UNU Press and through specific co-publishing arrangements.

In 1995, 14 books were issued by UNU Press and 12 books were published through specific co-publishing arrangements.

Revenue generated by the sale of UNU publications in 1995 was approximately US\$275,000.

The UNU maintained 61 depository libraries in 49 countries during 1995.



## Interface with the United Nations system

As the academic arm of the United Nations system, the UNU worked with a number of UN organizations in the conduct of its research, postgraduate training and dissemination activities. The following summary provides the highlights of the University's cooperation with other parts of the UN system during the year. The Rector and his senior colleagues participated in a number of UN meetings, conferences and discussions during 1995. Notable among these was the Rector's participation in a meeting of Senior Officials of the United Nations, his presentation of the annual report of the University to the Economic and Social Council, as well as his participation in the UN's 50th anniversary celebrations in New York. The University was represented at a number of meetings of the United Nations system, including those held at United Nations Headquarters in New York, at the UN Offices in Geneva and at UNESCO headquarters in Paris.

### Bretton Woods Institutions

- Under the Food and Nutrition programme, one of the focused areas of research has been functional consequences and prevention of iron deficiency. In collaboration with several organizations, the UNU is carrying out a 12-country field research to test the effectiveness of weekly versus daily doses of iron supplement for the prevention of iron deficiency anemia. The World Bank has been providing a financial contribution for this research effort.
- Discussions are being pursued between the UNU and the Bretton Woods Institutions on the possibility for a joint training programme at the UNU in cooperation with the Bretton Woods Institutions for the benefit of the developing world. In response to the need to train UN personnel in these areas which is increasingly felt in the UN system and the Bretton Woods Institutions, the UNU has advanced the proposal for setting up a recurrent training programme of one month aimed at persons from UN agencies, Bretton Woods Institutions, and UN Member States in four major areas of economic development, social policy, international finance, and international institutions.

### Economic Commission for Latin America and the Caribbean (ECLAC)

- The second UNU/INTECH conference was held in Marbella, Chile, in August jointly with ECLAC on the theme of "Productivity, Technical Change and National Innovation Systems in Latin America in the 1990s." The outcome of the conference will be published in book form in English and possibly in Spanish. Arrangements are under way for the conference results to be presented at a conference scheduled to be held in the second half of 1996 with the Inter-American Development Bank (IDB) in one of the MERCOSUR countries (Argentina, Brazil, Paraguay and Uruguay). The joint August event led to the signing of a letter of cooperation between UNU/INTECH and ECLAC that forms a basis for further collaboration between the two institutions centring on the areas of science and technology and development.

### Food and Agriculture Organization of the United Nations (FAO)

- UNU's Food and Nutrition programme worked cooperatively with many UN and other agencies including FAO, UNICEF, WHO. What is notable among such cooperative activities is the International Food Data Systems (INFOODS) project under the programme. FAO has joined forces with the UNU in this project to improve the quantity and quality of food composition data worldwide that the UNU continues to establish and link on a regional and subregional basis. The UNU also cooperated with FAO, which serves as Task Manager for Chapter 13 of UNCED Agenda 21 in the area of managing fragile ecosystems, in research on issues pertaining to sustainable development of mountain and highland regions.

### International Labour Organization (ILO)

- Within a project on "Changing Employment Patterns and the Structure of Unemployment in Africa," UNU/WIDER organized a workshop in



Dr. Federico Mayor, Director-General of UNESCO (right), visited UNU to participate in the joint UNU-UNESCO symposium in September. Shown at his left is the newly appointed Senior Vice-Rector of UNU, Prof. Takashi Inoguchi.

Accra, Ghana, in July in collaboration with UNU/INRA and ILO's Employment and Development Department. Some of the commissioned studies for the project provided data and information for a UNU/WIDER's conference in August in preparation for Habitat II.

#### **United Nations Conference on Trade and Development (UNCTAD)**

- In maintaining active contacts with UNCTAD in areas related to technology and investment, UNU/INTECH addressed the UN Commission on Science and Technology for Development for which UNCTAD assumes the secretariat function, in Geneva in May. UNU/INTECH also made a group and individual contribution to the UNCTAD ATAS Bulletin. Through its links with the UNCTAD Division on Transnational Corporations and Investment (DTCI), UNU/INTECH provided advice and comments on parts of the *World Investment Report 1994* prepared by DTCI and plans to contribute a paper to the *World Investment Report 1995*. UNU/IIST is

working with UNCTAD in developing a course module on software technology and will assist in technical presentations on issues such as the application of software and on hardware requirements.

#### **United Nations Environment Programme (UNEP)**

- The University cooperated with UNEP in a number of its environmental projects. UNU and UNEP cooperated in the organization of the Asian Water Forum held in Thailand in February 1995. The UNU also worked closely with the newly established UNEP International Environmental Technology Centre (IETC) in Osaka, Japan. UNU and UNEP also explored the possibilities for future collaboration in the area of a joint master's degree programme in environmental law to be undertaken at the University of Colombo in Sri Lanka. The UNU also participated in a UNEP/UNITAR training workshop on environmental law and policy and a UNEP-IUCN meeting of legal experts on the teaching of environmental law. The Rector and the Executive



To commemorate the fiftieth and twentieth anniversaries of UNESCO and UNU respectively, an international symposium on "Science and Culture: A Common Path for the Future" was organized jointly with UNESCO during 11–14 September 1995 at the UNU headquarters.

Director of UNEP exchanged letters to promote further collaboration in the field of environmental law and research related to the implementation of environmental accords.

### United Nations Educational, Scientific and Cultural Organization (UNESCO)

- Under the agreement of cooperation between UNU and UNESCO concerning the UNESCO/UNU UNITWIN Chairs Programme which was officially signed in February 1994, a UNESCO/UNU Chair in Plant Biotechnology located at the University of Beijing, China, is under way with the aim of establishing a national centre of excellence in plant biotechnology and training postgraduate students and researchers in this field. The organizations have also agreed to create the first UNU/UNESCO Zero Emissions Research Professorship to be located at the University of Namibia in Windhoek.
- Within the same framework of the UNESCO/UNU UNITWIN Chairs Programme, UNU/WIDER has

initiated preliminary discussions on the establishment of a Network of Global Economics with financial support from UNESCO and the UNU headquarters.

- The UNU, jointly with UNESCO, organized an international symposium on "Science and Culture: Common Path for the Future" at UNU headquarters in September 1995. The symposium was held in commemoration of the 50th and 20th anniversaries, respectively, of UNESCO and UNU to identify a truly comprehensive and interdisciplinary strategy in science and culture in face of the challenges of the 21st century. At the closing of the four-day symposium, a message from participants who were world-renowned scholars was released at a press conference.
- The UNU, together with UNESCO and Yamanashi University, Japan, organized an international symposium entitled "Rivers and People in South-East Asia and the Pacific—Partnership for the 21st Century" at UNU headquarters in Tokyo in October. The symposium presented the results of the UNESCO



International Hydrological Programme (IHP) at the completion of its fourth phase and drew up plans for a fifth phase of the IHP over the years 1996–2000. A Catalogue of Rivers of South-East Asia and the Pacific was distributed at the symposium as one of the outcomes of the fourth-phase of work.

#### United Nations Population Fund (UNFPA)

- UNU's Population, Land Management and Environment Change (PLEC) programme was carried out with financial support from UNFPA and the Global Environment Facility (comprising the World Bank, UNDP and UNEP). Their financial contribution was dedicated to the ongoing implementation of the project through field research in six cluster areas of tropical and subtropical environments.

#### Office of the United Nations High Commissioner for Refugees (UNHCR)

- The UNU, UNHCR, and the Ministry of Foreign Affairs of Japan organized an international seminar on the "Indo-Chinese Exodus and the International Response" in October at the UNU headquarters in Tokyo, for the purpose of increasing understanding of the exodus and its immediate and long-term effects.

#### United Nations Children's Fund (UNICEF)

- UNICEF and UNU cooperation took place within the UNU's programme on Food and Nutrition for Human and Social Development. For example, UNICEF provided support for a UNU effort to study the prevalence of iron deficiency anemia in Kazakhstan and Uzbekistan. A rapid assessment procedures (RAP) workshop was held in Dakar, Senegal, in September with support from UNICEF.

#### United Nations Industrial Development Organization (UNIDO)

- UNU/INTECH made a substantive contribution to the World Forum on Industrialization organized by UNIDO in October 1995 in New Delhi, India. At the invitation of the Director-General of UNIDO in mid-1994, UNU/INTECH endeavoured to bring the work of a number of staff members into a synthesis in line with the main agendas of the Forum and produced a document of about 50 pages.

UNU/INTECH's contribution was therefore based nearly entirely on its existing work, covering such areas as international linkages, women's employment, information technologies, manufacturing systems.

#### United Nations Development Fund for Women (UNIFEM)

- UNU/INTECH's project on "Monitoring the Impact of New Technologies and Women's Industrial Work in Asia" has been conducted from the planning stage in cooperation and collaboration with UNIFEM. UNU/INTECH's project on "New Technologies and Women's Industrial Work in Asia" has been conceived and planned in cooperation with UNIFEM. UNIFEM has also provided funding for the initiative, together with the Government of the Netherlands.

#### United Nations Institute for Training and Research (UNITAR)

- The UNU participated in the meeting convened by UNITAR of directors of United Nations institutes and programmes for training, research and planning, held in Geneva, Switzerland, from 28–29 June. The UNU also provided expertise for a UNEP/UNITAR training workshop on environmental law and policy.

#### United Nations Research Institute for Social Development (UNRISD)

- The University sent a representative to the 33rd session of the Board of UNRISD held during 26–27 June 1995. Informal discussions during the time of the meeting indicated possible areas of future collaboration. During 1995, four volumes emanating from a UNU/UNRISD research project were issued: *Mexico's "War" on Drugs: Causes and Consequences*, by María Celia Toro; *Unintended Consequences: Illegal Drugs and Drug Policies in Nine Countries*, by LaMond Tullis; *Marijuana in the "Third World": Appalachia, U.S.A.* by Richard Clayton; and *The Burmese Connection: Illegal Drugs in the Golden Triangle* by Ronald Renard. These volumes comprise volumes 3–6 of studies on the impact of the illegal drug trade and were published in 1995 by UNU Press with Lynne Rienner Publishers, Inc., United States. A UNU/INTECH researcher also chaired a UNDP/UNRISD workshop





on "Gender and Macroeconomic Politics" at the NGO Forum of the Fourth World Congress on Women held in Beijing, China, in September.

### Other links with the organizations of the United Nations system

- UNU/WIDER organized, in July in Helsinki, Finland, a meeting of a High-level Group on Development Strategies and Management of the Market Economy. The Group was established by the UN Department of Economic and Social Information and Policy Analysis (UN/DESIPA) to assist the work of the UN Secretariat on macroeconomic issues. UNU/WIDER participated actively in the group's work together with the International Institute for Applied Systems Analysis (IIASA). The July meeting was a concluding meeting of the group in follow-up to the first and second meetings held respectively in October 1994 in New York, United States, and in April in Laxenburg, Austria. Papers resulting from the three meetings are planned to be published in book form.
- The UNU organized a Conference on "Sustainable Future of the Global System" at headquarters in Tokyo in October, sponsored by the UN Commission on Sustainable Development and the Japan Environment Agency. The conference was held within a project on "Sustainable Global Future: Scenario Building for the 21st Century" that aims at generating information, analytical skills, and knowledge needed to formulate strategies and policy alternatives for sustainable development. The project started in 1994 and continues under UNU/IAS in close collaboration with the UN Department for Policy Coordination and Sustainable Development (UN/DPCSD) et al. A book emanating from the October Conference will be published.
- In collective efforts of the UNU to contribute to the implementation of Agenda 21, UNU/INTECH embarked on a pilot project to examine the legal framework for environmental control in a developing country and to examine the effectiveness of enforcement of environmental law. Within this project, exploratory field research was carried out in Mexico and resulted in a report entitled *Transfer of Environmentally Sound Technology* to be published as a UNU/INTECH Working Paper. This report was presented at a meeting of the UN Commission on Sustainable Development in New York in April. The project coordinator for the UNU Mountain Ecology and Sustainable Development project also made a presentation on UNU's work before the Commission in April.
- UNU's Food and Nutrition programme participated at two meetings of the Subcommittee on Nutrition of the Administrative Committee on Coordination. Those opportunities were amply utilized to report and explore further collaboration in the UN system concerning the major activities of the programme. The Chairman of the Subcommittee congratulated the UNU on the breadth and depth of its several sponsored activities. Such activities were elaborated on in the report of the 22nd session of the ACC Subcommittee on Nutrition held in Washington, D.C. in June 1995.
- As the focal point of the UNU for the World Summit for Social Development held in March in Copenhagen, Denmark, UNU/WIDER participated in and contributed to the preparatory process for the World Summit. Based on its own expertise and studies for the Summit, UNU/WIDER prepared two volumes for publication and presented one of them issued in time at the World Summit. The volume is entitled *Global Employment: An International Investigation into the Future of Work*, focusing on general aspects of the economic, political and social dimensions of unemployment as well as the gender dimension of the issue. A UNU delegation headed by the Rector participated in the World Summit and the Rector made a presentation to the plenary.
- The UNU made a substantive contribution to the Fourth World Conference on Women held in Beijing, China, in September. The UNU's contribution drew on its recent and ongoing research activities in the area of women in development, in particular UNU/WIDER's project on "Global Restructuring and Women Workers in Industrializing and Transitional Economies" and UNU/INTECH's project on "Monitoring the Impact of New Technologies and Women's Industrial Work in Asia." The latter project produced a book entitled *Women Encounter Technology: Changing Patterns of Employment in the Third World*, which was launched at the Beijing Conference. In connection with the UNU/INTECH project, it is also noteworthy that the project coordinator has advised the Gender Group of the UN Commission on Science and Technology for Development and would write a background paper for the group. The Rector addressed the plenary of the Conference and researchers from UNU/INTECH and UNU/WIDER



attended sessions at the governmental and the NGO sessions of the Conference.

- The UNU has been making preparations for its contribution to the UN Conference on Human Settlements (Habitat II) scheduled to take place in Turkey in June 1996. A "Pre-Habitat II Tokyo Conference on World Cities and Urban Future" was organized at the UNU headquarters in Tokyo in August with co-sponsors including the Japan Habitat Society and the Tokyo Metropolitan Government. The conference analysed the impact of the increasing trend of globalization on mega-cities and major metropolitan centres, in particular in the developing world. This conference was immediately followed by a UNU/WIDER Conference on "Human Settlements in Changing Global Economic and Political Processes" held in Helsinki, Finland. UNU/WIDER, on the basis of the preliminary work in this area, produced a report entitled *Habitat II and the Urban Economy* in its *Research for Action* series.
- Links have also been established between UNU/INTECH and the UN Commission on Science and Technology for Development. The Deputy Director of UNU/INTECH has been nominated as Chair of the Commission's Gender Advisory group for the period 1995–1996 and as a member of the group until 1999. In 1995, the Commission held one of its meetings in Maastricht, the Netherlands, and participated in a seminar on "information technology" led by UNU/INTECH research staff.
- UNU's Office in North America (UNUONA) extended its outreach activities to enhance awareness and knowledge of UNU's substantive activities and their outcomes. These efforts included targeted information distribution to permanent missions and UN officials at the senior and working levels. UNUONA also initiated a series of public fora during the year in an effort to disseminate the results of UNU policy research. These fora covered such topics as the United Nations reform, political and economic aspects of global employment and the prospects for establishing a rigorous definition and set of measures for the biogeophysical foundations of sustainability. UNUONA has also strengthened cooperation with the Department of Public Information of the UN Secretariat which has been helpful in raising the visibility of the University in New York.
- Other events have included the launching of UNU books and co-published journals such as *Global Governance* and *Le Trimestre du Monde*. One highlight of the year was the formal launching of the UNU's International Leadership Academy at a ceremony held at the UN Headquarters in New York in the presence of the Secretary-General, Dr. Boutros Boutros-Ghali and Queen Noor of Jordan.



## State of the University—1995



Members of the UNU Council at its forty-second session in Tokyo.

The year 1995 marked the 20th anniversary of the United Nations University and coincided with celebrations of the 50th anniversary of the birth of the United Nations. The University dedicated a number of its public events to mark the completion of its first two decades. Notable among these events was a symposium held during the 42nd session of the governing Council on 4 December 1995 on "The Future of Hope: Lessons from the Past." This symposium brought together a number of Nobel Laureates from many fields for discussions on the progress of events in the fifty years since World War II and sought to draw out lessons and examples which could help us in confronting the problems of the 21st century. The event was organized in collaboration with the Asahi Shimbun and with the cooperation of the Elie Wiesel Foundation for Humanity.

While reflecting on its first 20 years of academic activity, the University completed the final year of work covered by its Second Medium-Term Perspective (MTP II, 1990–1995). During the year, the University pre-

pared the framework which will guide its academic development into the next century. The University Centre, together with the research and training centres and programmes (RTC/Ps), formulated the first draft of the University's Third Medium-Term Perspective (MTP III) to cover the period 1996–2001. Parallel to this exercise, the University prepared its programme and budget for the 1996–97 biennium.

During 1995, the UNU continued its efforts to ensure more effective interaction with other United Nations organizations and to align its academic activities with the primary concerns of the United Nations system. The development of MTP III included efforts to make the University's ongoing programmes more coherent and responsive to the research needs of the United Nations. The Rector met with a number of heads of agencies as a means to inform them about the work of the University and to seek their cooperation and advice on how the University's research and dissemination activities could be strengthened to assist the agencies in their own work. Working level contacts with



other UN organizations helped to involve these organizations in joint endeavours such as co-sponsored meetings or research initiatives. The UNU continued to seek information and to ensure that its activities do not duplicate those being undertaken by other research entities within the system. Additional efforts will be made in 1996 to strengthen dialogue with other parts of the system with a view of a more effective sharing of information and results in areas of common activity.

The University carried on its public information and related dissemination activities which are aimed at heightening interest in and the visibility of the University's work. These efforts included publicizing its conferences and meetings, bringing attention to its publications through book launchings and public fora and moving into the area of electronic dissemination. The UNU Office in North America, for example, held a number of public fora and events to expand knowledge of the University's work among permanent missions to the United Nations in New York and among officials of the United Nations Secretariat in New York.

The Council of the University met in its 42nd session during 4–8 December in Tokyo. The Bureau, the steering committee of the Council, had met in early August to review the first draft of MTP III, the draft progress report on the establishment of a new research and training centre in Japan, the Institute of Advanced Studies (UNU/IAS) and the draft agenda for the 42nd session of the Council. During its 42nd session, the Council took note of the Rector's statement and report to the Council as well the individual reports of UNU RTC/Ps. It also considered the draft MTP III for 1996–2001 and requested that amendments be made in the document for consideration by the Bureau in July 1996 and at the 43rd session of the Council in December 1996. The Council also adopted the proposed Academic Programme and Budget of the University for the biennium 1996–97.

The Council also considered progress reports on the UNU International Leadership Academy (UNU/ILA) in Amman, Jordan and the UNU International Network on Water, Environment and Health (UNU/INWEH), in Ontario, Canada. In considering the reports presented to it, the Council noted the need for a more systematic reporting of the work of the University by the Rector and the Director of UNU RTC/Ps which would permit a more critical assessment by the Council of UNU activities in both quantitative and qualitative terms. The Council expressed its concern about the state of UNU/INRA and the lack of staff and financial resources which have hampered progress in implementing its programme activities. The Council also urged the

Rector to continue his efforts to harmonize standards and procedures for electronic communication throughout the UNU system.

Council discussions also noted the increasing span of UNU training and fellowship activities and the differing policies and approaches which were being used within the UNU system. The Council asked the Rector to undertake an assessment of these activities and to develop a strategy to ensure more coherent implementation of training and fellowship activities, including an appropriate geographic balance in their distribution. The Council also requested the Rector to study the publishing activities of the UNU with the aim of improving efficiency and cost effectiveness of the operations.

During the session, the Council also designated members of a Nominating Committee for the UNU Rectorship to begin to carry out the process of preparing a panel of names for the next Rector of the University to be considered by the Secretary-General of the United Nations and the Director-General of UNESCO. The next Rector is expected to take up his/her term in September 1997.

An important institutional development during 1995 was the establishment of the UNU/IAS. The history of the idea for an RTC in Japan goes back to the inception of the University for it was included in the original agreement between the United Nations and the Government of Japan which led to the establishment of the UNU. For more than 20 years it remained a promise, an idea and a dream, but it was only in 1995 that its establishment became a reality.

In July the necessary legal instruments were signed to permit the hand-over of the premises of the Institute to the University by the Tokyo Metropolitan Government authorities. These facilities, amounting to some 6,000 square metres of office space, are being made available free-of-charge by the government and people of Tokyo. The Tokyo Metropolitan Government has also made available the basic furnishings and equipment for the Institute and has agreed to cover a portion of the maintenance costs. The Ministries of Foreign Affairs and of Education, Science, Sports and Culture of Japan have generously agreed to provide support for the academic activities of the Institute. The preparatory work for the setting up of UNU/IAS occupied a number of headquarters staff during the year. These efforts ranged from installation of the necessary furnishings and equipment to preparation of the necessary legal instruments for establishing the Institute to the planning of the initial academic programme of UNU/IAS. University staff worked closely with offi-



cials of the Government of Japan and of the Tokyo Metropolitan Government to ensure that the necessary financial resources for establishing the Institute and for the initiation of activities as soon as the Institute was established by the UNU Council. The UNU Council adopted the Statute for UNU/IAS at its 42nd session in early December thereby formally establishing the Institute.

A number of start-up activities were carried out in 1995 in preparation for initiation of academic activities in 1996. These activities have already been described in previous sections of the report. The governing Council decided in its previous deliberations that the Institute should have a flexible multi-thematic programme and that it should build up strong linkages with the academic community in Japan. The University organized a number of consultative meetings in the past to assist in the process of formulating the programme of work of the UNU/IAS. Based on these consultations, the Council decided that an entry point for the initial activities would be global governance and multilateral cooperation within the framework of the United Nations. In addition, activities related to environmentally sustainable development, mega-cities and urban development and science and technology are likely to form the basis of the Institute's first academic programme. Efforts were under way in late 1995 to search for the first Director of the Institute and to recruit the first in-house and visiting researchers for UNU/IAS. Additionally, the basic administrative and support staffing were being identified at the time of the preparation of this report.

The Board of UNU/INTECH met in its sixth session from 14–16 June 1995 and reviewed the ongoing work of the Institute. The Board also discussed preparations undertaken by the Rector for an evaluation of UNU/INTECH at the completion of its first five years later in 1995. The Board of UNU/WIDER met in its 11th session from 19–20 June 1995 and reviewed the work of the Institute since the 10th session held one year earlier. The 1994–95 biennium was a period of transition for the UNU/WIDER in terms of the structure and priorities of the work programme as well as its interaction with the academic community in Finland. The year 1995 also saw the selection of a new Director for the Institute who was to take office at the beginning of 1996. The Board of UNU/IIST met in its fourth session during 17–19 May 1995. The Board reviewed the progress of the Institute in the implementation of its software development activities and reviewed the planned programme of work for the next biennium. The Rector appointed members of the first Board of

UNU/INRA to replace an advisory committee which had been in place during the initial phase of the UNU/INRA programme. The Board was expected to hold its first meeting in early 1996.

The Rector convened two meetings of the Conference of Directors of UNU research and training centres and programmes. The first, held during 22–23 March 1995, was devoted to a discussion of strengthening the role of the Conference of Directors, enhancing the coherence and intra-university academic cooperation as well as the development of the MTP III to cover the period 1996–2001. The Conference also reviewed the framework for preparing the 1996–1997 biennium budget as well as administrative matters such as a university-wide staffing policy and progress made in the area of computerization and communications. A second Conference of Directors was held on 1 December and was focused on preparations for the 42nd session of the governing Council.

During the year, the Rector led delegations to two major United Nations conferences: the World Summit for Social Development held in Copenhagen, Denmark, in March, and the Fourth World Conference on Women held in Beijing, China, in September. UNU/WIDER served as the focal point for UNU input into the World Summit for Social Development. The Institute used the occasion to launch the first of two volumes emanating from its work on global employment. A copy of the volume entitled: *Global Employment: An International Investigation into the Future of Work* was given to each national delegation attending the summit and was officially launched at a ceremony attended by Mr. Martti Ahtisaari, President of Finland, Dr. Arped Göncz, President of Hungary, Mr. Percival Patterson, Prime Minister of Jamaica, and Mr. Paulo Renato Costa Souza, Minister of Education of Brazil.

UNU/INTECH and UNU/WIDER jointly served as the focal point for the UNU related to the preparatory work for the Fourth World Conference on Women. Researchers from both RTCs participated in sessions and events of both the governmental and NGO fora. UNU/INTECH used the occasion of the Beijing Summit to launch its volume *Women Encounter Technology: Changing Patterns of Employment in the Third World*.

The Rector addressed the plenary sessions in Copenhagen and Beijing and described in his statements the work of the University related to each Summit. The University also used the occasion of the summits to publicize its work in the form of summaries of its activities related to social development and to gender and development issues. UNU Press also used



these occasions to draw attention to the dissemination activities of the University in these key areas with displays of UNU titles in both Copenhagen and Beijing.

Another major institutional development during the year was the progress made in the setting of the UNU's International Leadership Academy (UNU/ILA) in Amman, Jordan. The UNU Council had formally established the Academy as a programme of the University at its 41st session in December 1994. In April, the Rector and the Minister of Higher Education of Jordan signed the necessary legal instrument to enable to setting up of the UNU/ILA offices within the University of Jordan campus in Amman. The Rector appointed an Advisory Committee for the Academy comprising Queen Noor of Jordan (Chairperson), Mr. Hisashi Owada, Ambassador and Permanent Representative of Japan to the United Nations, New York (Vice-Chairperson), Mr. Jan Egeland, Secretary of State, Royal Norwegian Ministry of Foreign Affairs, and Mr. Bartolomé Mitre, Editor, *La Nación*, Argentina. The Rector also appointed Mr. Andrés Pastrana, a former Mayor of Bogotá, Colombia, as the first Director of UNU/ILA. Mr. Pastrana was unable to continue in his post due to personal reasons and resigned in September. The Rector expected to appoint a new director for the Academy in early 1996.

On the occasion of the 50th Anniversary of the United Nations, King Hussein I of the Hashemite Kingdom of Jordan, in his address at the Special Commemorative Meeting of the United Nations General Assembly on 22 October 1995, referred to the establishment of UNU/ILA in Amman. He stated that "this academy will be the first of its kind in the world. It will be the first branch of the United Nations University in the Middle East," which will work to build bridges of human contacts among future leaders. It will give them the opportunity for dialogue and exchange between them and their diverse cultures. It will prepare programmes and courses that enroll leaders in the political, social, economic, religious, and cultural sectors from all over the world, to foster dialogue, understanding, and cooperation between peoples and civilizations.

Following an extensive set of consultations with officials of the Government of Canada and of the Province of Ontario, the UNU made some progress during the year towards the initiation of activities of the International Network on Water, Environment and Health (UNU/INWEH). The proposal for the establishment of UNU/INWEH had received the endorsement of the UNU Council at its 41st session in December 1994. Discussions during the year were aimed at mobilizing the necessary matching funding from both the central

Government and from the province. In September, the Provincial authorities informed the Rector that they would be unable to honour the pledge of the previous Government for UNU/INWEH owing to severe budgetary cuts. The University, had, however, earlier received a firm commitment from the Government of Canada to contribute C\$5.25 million over four years for UNU/INWEH with the understanding that there would be no additional federal core funding beyond this amount. The Government indicated its expectation that UNU/INWEH would become self sufficient at the end of the initial four year period. The University continued the necessary preparatory work for setting up UNU/INWEH in early 1996 based on the assurances of support from the Government of Canada.

As of 31 December 1995, pledges to the Endowment Fund and operating contributions made by 54 governments and seven other benefactors totaled some US\$289.2 million, of which US\$268.8 million had been received. The University also benefited during the year from counterpart and other support, including cost-sharing support for the fellowships and other activities. Contributions based on new and existing pledges for UNU research and training centres and programmes and modest operational contributions were received during the year. Table 1 below provides a summary of the contributions of US\$100,000 or more received during 1995.

The University held numerous conferences, workshops and seminars in different parts of the world during 1995. The conference facilities at the UNU headquarters in Tokyo were in nearly constant use by the University and by a number of outside organizations. More than 8,500 persons attended academic events held at the UNU headquarters in Tokyo during the year. In total, more than 100 academic events were held at the UNU headquarters and at UNU RTC/Ps or at other locations under their auspices. A number of these events attracted wide media attention. Notable among these events was the first World Congress on Zero Emissions held from 6–7 April 1995 at the UNU headquarters. The Conference was the first multi-point video conference on Internet held in Japan and there were live presentations via Internet by Mr. Ingvar Carlsson, Prime Minister of Sweden, and Dr. Federico Mayor, Director-General of UNESCO, during the course of the Congress. UNU was able to link up sites in Asia, Europe and the United States involving scholars, policy makers and politicians in the conduct of the Congress. Other major conferences such as the Symposium on New Dimensions of UN Peace-Keeping Operations held in mid-January and the Symposium on



“The Future of Hope: Lessons from the Past” held on 4 December 1995 served to increase awareness of the UNU’s diverse academic activities.

In 1995, Dr. Lucien F. Michaud of the University of Sudbury, Ontario, Canada, became the Chairman of the Council of the UNU following his election at the 41st session of the Council in Accra, Ghana, in December 1994.

The Secretary-General of the United Nations and the Director-General of UNESCO announced the appointment of 10 new members of the UNU Council early in the year. These new members included José Brunner Ried, a sociologist and Minister Secretary-General of the Government of Chile; Paolo Costa, Rector and Professor of Regional Economics, University Ca’ Foscari of Venice, Italy; Donald Ekong, Professor and Secretary-General of the Association of African Universities (AAU); Salim El-Hoss of the American University of Beirut and a former Prime Minister and Minister of Education of Lebanon; Genady Golubev, Professor and Head of the Department of World Physical Geography and Geoecology, Faculty of Geography, Moscow State University, and a former Assistant Secretary-General of the United Nations and Assistant Executive Director of UNEP; Françoise Héritier-Augé, Professor and Director, Laboratoire d’anthropologie sociale, Ecole des hautes études en sciences sociales, Collège de France; Risto Ihamuotila, Rector and Professor of Agricultural Policy of the University of Helsinki, Finland; Graça Machel, President of the Foundation for Community Development and Chairperson of the National Organization of Children of Mozambique, and a former Minister of Education and Culture of Mozambique; Valeria Merino-Dirani, environmental law specialist from Ecuador and Executive Director of the Corporación Latinoamericana para el Desarrollo; Ingrid

Moses, Deputy Vice-Chancellor (Academic) of the University of Canberra, who was Professor of Higher Education and Foundation Director of the Centre for Learning and Teaching at the University of Technology in Sydney, Australia; and Wang Shaoqi, Director-General, Department of International Cooperation, State Science and Technology Commission, China. Each of these members will serve in the individual capacity for a six-year term ending on 2 May 2001.

Professor Takashi Inoguchi, a Professor of Political Science at the University of Tokyo, assumed the post of Senior Vice-Rector of the UNU in April following a lengthy search process. Dr. George Vassiliou, former President of Cyprus, was appointed as a member of the Board of UNU/WIDER. Dr. Hebe Maria Cristina Vessuri of the Instituto Venezolano de Investigaciones Científicas (IVIC) in Venezuela, was appointed to the Board of UNU/INTECH and Professor Wil Albeda of the Netherlands was reappointed to the Board of UNU/INTECH. Professor Zhou Li-Gao, Vice-Rector of the University of Macau, was appointed as a member of the Board of UNU/IIST. Professors Ivan M. Havel of the Czech Republic, Gilles Kahn of France, and Kesav V. Nori of India were all reappointed to a second term on the Board of UNU/IIST. Professor W.S. Alhassan, Director-General, Council for Scientific and Industrial Research (CSIR), Ghana; Dr. Björn Lundgren, Director, International Foundation for Science, Stockholm, Sweden; Professor Thomas R. Odhiambo, Director, the Research and Development Forum for Science-Led Development in Africa (RANDFORUM), Nairobi, Kenya; Dr. Guy Paillotin, President, Institut national de la recherche agronomique (INRA), Paris, France; and Dr. S.I. Rasool, Director, International Geosphere-Biosphere Programme—Data and Information System (IGBP-DIS), Paris, France, were appointed to the Board of UNU/INRA.



**Table 1:**  
**Financial contributions received during 1995 (Over US\$100,000)**

Source	Purpose	Amount (US\$)	
<b>Governments:</b>			
Austria	Endowment Fund	144,329	
China	Endowment Fund earmarked for UNU/IIST	1,000,000	
Italy: Regional Authority of Sardinia	Earmarked for Programme on Marine Science & Ocean Affairs	136,036	
Japan	Operating contribution from Ministry of Foreign Affairs including \$500,000 for UNU Agenda 21 activities	3,700,000	
	Contribution from Ministry of Education, earmarked for Japan-UNU cooperative study programme	1,222,071	
	Operating contribution from the Ministry of Foreign Affairs for fiscal year 1995, including \$1,000,000 for UNU/IAS	4,700,000	
	Operating contribution from the Ministry of Education for fiscal year 1995, including ¥100,000,000 (earmarked for UNU/IAS).	2,187,970	
Jordan	For UNU International Leadership Academy (UNU/ILA)	713,080	
Macau	Endowment Fund earmarked for UNU/IIST	3,000,000	
Netherlands	1995 operational costs of UNU/INTECH	884,347	
Portugal	Endowment Fund earmarked for UNU/IIST	1,000,000	
		<b>Subtotal</b>	<b>18,687,833</b>
<b>Non-governmental agencies and private sector:</b>			
United Nations	Government of Japan Trust Fund for International Symposium on the United Nations Peace-keeping Operations	300,000	
	Government of Japan Trust Fund for activities related to the work of the Commission on Global Governance	482,400	
UNIFEM	UNU/INTECH-Ministry of Foreign Affairs of the Government of the Netherlands-UNIFEM Joint Project on Monitoring the Impact of New Technologies in Women's Work	176,349	
UNFPA	Collaborative studies on population, land management and environmental change	240,000	
EEC	UNU/INTECH project on international dimensions of the impact of new technologies	122,352	
Asian-Pacific Center (Japan)	Project on views of the environment in Asian countries: their relation-ship to sustainable development	127,625	
Ebara Corporation (Japan)	UNU Zero Emissions Research Initiative	194,286	
Kirin Brewery Co. (Japan)	UNU-Kirin Fellowship programme	353,208	
Nippon Foundation	Mega-cities and urban development	449,438	
Shimadzu Corporation (Japan)	Environmental monitoring and analysis in the East Asian region: technology transfer and environmental governance	356,765	
		<b>Subtotal</b>	<b>2,802,423</b>
		<b>TOTAL:</b>	<b>21,490,256</b>





## Annex 1: UNU academic programme for 1994-95

Programme area	Responsible unit	
	Existing	Prospective
<b>Universal human values and global responsibilities</b> <ul style="list-style-type: none"> <li>• The United Nations system, global governance and security</li> <li>• Conflict resolution and ethnicity</li> </ul>	UNU Centre UNU Centre INCORE	UNU/IAS
<ul style="list-style-type: none"> <li>• Governance, state and society</li> </ul>	UNU Centre UNU/WIDER UNU/ILA UNU Centre	UNU/CESG
<ul style="list-style-type: none"> <li>• Culture and development</li> </ul>		
<b>New directions for the world economy</b> <ul style="list-style-type: none"> <li>• Growth and sustainable development</li> </ul>	UNU/WIDER UNU Centre	
<ul style="list-style-type: none"> <li>• Socio-economic dimensions of development</li> </ul>	UNU/WIDER UNU/INTECH	
<ul style="list-style-type: none"> <li>• Global change and perspectives</li> </ul>	UNU Centre UNU/WIDER	
<b>Sustaining global life-support systems</b> <ul style="list-style-type: none"> <li>• Eco-restructuring for sustainable development</li> </ul>	UNU Centre UNU/WIDER UNU/INTECH	UNU/IAS UNU/INWEH
<ul style="list-style-type: none"> <li>• Integrated studies of ecosystems</li> </ul>	UNU Centre UNU/WIDER	
<ul style="list-style-type: none"> <li>• Information systems for environmental management</li> <li>• Natural resources in Africa</li> <li>• Environmental law and governance</li> </ul>	UNU/Centre UNU/INRA UNU Centre	UNU/CESG
<b>Advances in science and technology</b> <ul style="list-style-type: none"> <li>• Socio-economic implications of new technologies</li> <li>• Applications of biotechnology for development</li> <li>• Software technology for developing countries</li> <li>• Microprocessors and informatics</li> </ul>	UNU/INTECH UNU/BIOLAC UNU/IIST UNU Centre	
<b>Population dynamics and human welfare</b> <ul style="list-style-type: none"> <li>• Population, urbanization, and development</li> </ul>	UNU Centre UNU/WIDER	UNU/IAS
<ul style="list-style-type: none"> <li>• Population, land management and environmental change (PLEC)</li> </ul>	UNU Centre UNU/INRA	
<ul style="list-style-type: none"> <li>• Food and nutrition for human and social development</li> </ul>	UNU Centre	UNU/FNCC

### Existing:

INCORE:	Initiative on Conflict Resolution and Ethnicity (Ulster, Northern Ireland, United Kingdom)
UNU Centre:	Academic Division, UNU Centre (Tokyo, Japan)
UNU/BIOLAC:	Programme on Biotechnology for Latin America and the Caribbean (Caracas, Venezuela)
UNU/INRA:	Institute for Natural Resources in Africa (Accra, Ghana with a mineral resources unit in Lusaka, Zambia)
UNU/IIST:	International Institute for Software Technology (Macau)
UNU/ILA:	International Leadership Academy (Amman, Jordan)
UNU/INTECH:	Institute for New Technologies (Maastricht, the Netherlands)
UNU/WIDER:	World Institute for Development Economics Research (Helsinki, Finland)

### Prospective:

UNU/CESG:	Centre for the Study of Governance (Barcelona, Spain)
UNU/FNCC:	Food and Nutrition Research and Training Coordinating Centre at Cornell University, Ithaca, (New York, United States.)
UNU/IAS:	Institute of Advanced Studies (Tokyo, Japan)
UNU/INWEH:	International Network on Water, Environment and Health (Joint International Programme with Ontario, Canada (Ontario, Canada)



## Annex 2: UNU academic activities in 1995

- UNU/INTECH Meeting of the Project on Import Liberalization, Industrialization and Technical Capability in Sub-Saharan Africa, 16–17 January, Dar es Salaam, Tanzania.
- Lecture on “the Paradox of Globalization and Nation-building,” by Professor Hernando Gómez Buendía, 19 January, UNU/WIDER, Helsinki, Finland.
- Tokyo Symposium on the New Dimensions of United Nations Peace-keeping Operations, organized jointly with the International Peace Academy and the Ministry of Foreign Affairs of Japan, 19–20 January, UNU headquarters, Tokyo, Japan.
- UNU/BIOLAC Training Course on Molecular Basis of Tumor Growth Control, Differentiation and Cell Cycle, organized by the Instituto Venezolano de Investigaciones Científicas (IVIC), 22 January–3 February, Caracas, Venezuela.
- Workshop II on the UNU Project on Views of the Environment in Asian Countries: Their Relationship to Sustainable Development, organized by the Asian-Pacific Center (Fukuoka, Japan), 27–28 January, Kyoto, Japan.
- Training Course on Seismic and Cyclone Hazards Mitigation, organized by the Asian Disaster Preparedness Center (ADPC), Asian Institute of Technology (AIT), 29 January–27 February, Bangkok, Thailand.
- Asian Water Forum, organized jointly with the United Nations Environment Programme (UNEP) and International Water Resources Association (IWRA), 30 January–1 February, Bangkok, Thailand.
- UNU/IDECG (International Dietary Energy Consultative Group) Task Force Meeting on Lysine Requirements, 31 January–3 February, Cambridge, USA.
- UNU/IIST M.Sc. Course for University of Macau – Computer Science Seminar, February–June, and September–December, Macau.
- UNU Public Forum on Liberia 1994: ECOMOG and UNOMIL—Response to a Complex Emergency, 6 February, UN Headquarters, New York, USA.
- Training Course on UNU-Tata Energy Research Institute (TERI) Programme in Sustainable Development Management, 13 February–2 March, New Delhi, India.
- Lecture on “Labour Market Information in Africa: An Assessment on Adequacy by Mr. Derseh Endale, 16 February, UNU/WIDER, Helsinki, Finland.
- Preparatory Workshop on Human Settlements in the Changing Global Political and Economic Processes,” organized in cooperation with the Ministry for Environment, Government of Finland, 17–18 February, UNU/WIDER, Helsinki, Finland.
- UNU/IIST Training Workshop on Formal Software Development Techniques and Design Techniques for Real-time Systems using Duration Calculi, 20 February–4 March, Hanoi, Viet Nam.
- INFOODS Preliminary Meeting on the Establishment of NORAFOODS, 22 February, Bethesda, USA.
- CARI '96 Consultative Meeting, 23 February–3 March, Libreville, Gabon.
- Lecture on “China and the World Economy,” by Dr. Lu Aiguo, 28 February, UNU/WIDER, Helsinki, Finland.
- Training Course on Renewable Energy Systems, organized by the Indian Institute of Technology (IIT), 6 March–3 November, New Delhi, India
- UNU/BIOLAC Training Course on the Analysis and Manipulation of the Plant Genome, organized by Centro de Investigación y de Estudios Avanzados del I.P.N. (CINVESTAV), 12–25 March, Irapuato, Mexico.
- UNU Public Forum on Egypt, Tradition and Transformation by Mrs. Suzan Mubarak, Wife of Egyptian President Mr. Hosni Mubarak, 15 March, UNU headquarters.
- UNU International Symposium on Small Islands and Sustainable Development, organized jointly with the National Land Agency of Japan, 24 March, UNU headquarters.
- UNU Central Eurasian Water Forum: Caspian, Aral and Dead Sea Water Crisis and Perspectives, organized jointly with the Japan International Cooperation Agency and International Water Resources Association, 27 March, UNU headquarters.
- UNU/INTECH Workshop on Industrial Policies for the 21st Century: New Technology and Women's Work, 27–31 March, New Delhi, India.
- UNU/BIOLAC Workshop on Brucellosis Research Network, 31 March–7 April, Valdivia, Chile.
- Second International Symposium on Sustainable Mountain Development: Managing Fragile Ecosystems in the Andes, organized jointly with the Instituto de Ecología, 2–14 April, La Paz and Huarinilla, Bolivia.
- UNU/IIST One-day Seminar on Formal Methods, organized by the Zhuhai Science and Technology Commission with presentations by four UNU/IIST Staff, 3 April, Zhuhai, China.
- Joint UNU/INTECH Seminar with the Institute of Economic Growth, Delhi University, 3 April, New Delhi, India.
- UNU/INTECH Seminar at Asian Institute of Technology on the Role and Relevance of Technology Policy in the Teaching of Science and Engineering with Reference to Gender, 4–5 April, Bangkok, Thailand.
- UNU Public Forum on Peace and Security in Latin America: The Role of the United Nations and Regional Organizations, 5 April, UN Headquarters, New York, USA.
- Award Ceremony and Orientation for UNU-Kirin Fellows, 6 April, UNU headquarters.
- UNU First World Congress on Zero Emissions, 6–7 April, UNU headquarters.
- UNU/WIDER Workshop on the New Regionalism and the International System – Implications for Development and Security, 9–10 April, Jerusalem, Israel.
- UNU/WIDER Special Conference, “Visions for a New Middle East: Prospects for Regional Cooperation and Institution Building in the Context of the Peace Process – Israel, the Palestinian Entity and Jordan,” 11 April, Jerusalem, Israel.
- UNU Public Forum on Global Environment Changes and Developing Countries: Issues and Perspectives, by Dr. A.P. Mitra, President, National Academy of Sciences, India; Member of the UNU Council, 11 April, UNU headquarters.
- UNU/UY (University of Yaoundé)/INRIA (Institut national de recherche en informatique et en automatique) Planning Meeting of the African Regional Research Group on Decision Support Systems, organized by Institut Africain d'Informatique (IAI), 13–15 April, Libreville, Gabon.
- Training Course on Remote Sensing Technology, organized by the Instituto de Pesquisas Espaciais (INPE), 24 April–1 December, São José dos Campos, Brazil.
- Preparatory Workshop for UNU Conference on the Sustainable Future of the Global System, to be held on 16–18 October 1995 at UNU headquarters, 27–28 April, Laxenburg, Austria.
- Lecture on “Russian Cultural Codes and Procedures,” by Dr. Georgi Shurupov, 28 April, UNU/WIDER, Helsinki, Finland.
- Training Course on UNU Geothermal Training Programme, organized by the National Energy Authority (NEA) of Iceland, April–October, Reykjavik, Iceland.
- Training Course on Science and Technology Policy, organized by the Universidade Estadual de Campinas (UNICAMP), April 1995–March 1997, Campinas, Brazil.
- Training Course on Analysis and Management of Geological Risks, organized by the University of Geneva, 2 May–15 June, Geneva, Switzerland.
- UNU/MUNS (Multilateralism and the United Nations System) Network Symposium on Social Forces and Post-Westphalian Politics, organized jointly with the York University, 4–5 May, Ontario, Canada.
- Lecture on “National Resources and Environment in the Philippines,” by Dr. M. de los Angeles, 5 May, UNU/WIDER, Helsinki, Finland.
- UNU/WIDER Workshop on National Environmental Policies: A Comparative Study of Capacity Building, 5–6 May, Berlin, Germany.
- UNU/BIOLAC Training Course on the Applications of New Biotechnologies to Agriculture, organized by Instituto Nacional de Tecnología Agropecuaria (INTA), 15 May–3 June, Moron, Argentina.



- Meeting of the Board of UNU/IIST, 17–19 May, Macau.
- UNU/WIDER Workshop on Restructuring the Global Military Sector: Political, Economic, Social and Institutional Aspects, 18–21 May, Helsinki, Finland.
- UNU Global Environmental Forum IV on Population, Land Management and Environmental Change, organized with support from Obayashi Corporation, 25 May, Osaka, Japan.
- UNU/WIDER Workshop concerning "Reforming Economies in the Global Trading and Financial Systems" within component I of the project Evolving New Market Economies in Europe and Asia, 25–27 May, Helsinki, Finland.
- UNU Public Forum on the United Nations System: The Policies of Member States, 1 June, UN Headquarters, New York, USA.
- UNU/WIDER Colloquium on Social Networks in Europe and in the Mediterranean, organized with cooperation of Tampere Peace Research Institute, 5–6 June, Tampere, Finland.
- UNU/IIST Postgraduate and Post-doctoral Course on Formal Software Development Methods and Real-time, Hybrid and Reactive Systems Design using Duration Calculi, 5–16 June, Penang, Malaysia.
- Lecture on "Social Networks in Europe and in the Mediterranean," by Prof. Jean-Pierre Daviet, 7 June, UNU/WIDER.
- UNU/WIDER Workshop concerning "The Changing Internal and External Factors and Global Implications" within component II of the project Evolving New Market Economies in Europe and Asia, 9–10 June, Helsinki, Finland.
- UNU Workshop on Harnessing the Communication Revolution – Creation of a Global Disaster Information Network, organized jointly with the University of Tokyo, as part of the XVIII Pacific Science Congress (5–12 June 1995), 10–11 June, Beijing, China.
- UNU/International Union of Nutritional Sciences (IUNS) Consultative Meeting with USDA on the Operation of NORAFOODS, 11–13 June, Washington, D.C., USA.
- Lecture on "Social Policy in Nigeria," by Dr. Kolawole Raheem, 12 June, UNU/WIDER, Helsinki, Finland.
- UNU/BIOLOGICAL Workshop on the Application of Biotechnology to Tuberculosis Research, organized by the Instituto Venezolano de Investigaciones Científicas (IVIC), 12–15 June, Caracas, Venezuela.
- Seminar on the Role of Science and Technology in Promoting Environmentally Sound Development, organized jointly with the Science and Technology Policy Institute (STEPI), Korea, 13–15 June, Seoul, Republic of Korea.
- UNU/International Union of Nutritional Sciences (IUNS) Working Group Meeting on Food Data Quality Indicators, 14–15 June, Washington, D.C., USA.
- Meeting of the Board of UNU/INTECH, 14–16 June, Maastricht, Netherlands.
- Conference on the Agenda for Development: Implications for the Academic World, 17–18 June, UNU/WIDER, Helsinki, Finland.
- Eleventh Session of the Board of UNU/WIDER, 19–20 June, Helsinki, Finland.
- UNU/IIST Seminar on Formal Software Development Methods, 17–20 June, Bangkok, Thailand.
- UNU Public Forum on Environmental Concerns in the Pacific Island States by Dr. Vili A. Fuavao, Director, South Pacific Regional Environment Programme, 23 June, UNU headquarters.
- UNU Public Forum on Global Employment: An International Investigation into the Future of Work, 23 June, UN Headquarters, New York, USA.
- Symposium Commemorating the UN's 50th and UNU's 20th Anniversaries, "Japan and the United Nations," organized jointly with the United Nations Associations of Japan, 26 June, UNU headquarters.
- Training Course on International Environmental Law, organized by the University of Sassari, 1–15 July, Alghero, Italy.
- International Symposium on the United Nations: Between Sovereignty and Global Governance, organized by La Trobe University, in collaboration with UNU and Australian National University Peace Research Center, 2–6 July, Melbourne, Australia.
- Conference on Development Strategy and Management of the Market Economy, organized in cooperation with UN DESIPA and IIASA, 8–10 July, UNU/WIDER, Helsinki, Finland.
- UNU Global Faculty Training Workshop on International Environmental Law, 10–18 July, Barcelona, Spain.
- UNU/INTECH Second Meeting of the Project on Import Liberalization Industrialization and Technical Capability in Sub-Saharan Africa, 12–14 July, Oxford, UK.
- Training Course on Planning for Sustainable Development in the Asia-Pacific Region, organized jointly with the School of Environment, Resources and Development, Asian Institute of Technology (AIT), 17 July–4 August, Bangkok, Thailand.
- UNU/TERI (Tata Energy Research Institute) Conference on Possible Areas of Cooperation in Energy and Related Fields between Central Asia, the Caucasus and Other Asia Countries, 18–20 July, New Delhi, India.
- Symposium on Human Rights in Asia-Pacific Region: Towards Partnership for the Promotion and Protection of Human Rights, organized jointly with the Ministry of Foreign Affairs of Japan, 20–21 July, UNU headquarters.
- First Advisory Committee Meeting of the UNU International Leadership Academy (UNU/ILA), 23–24 July, Amman, Jordan.
- UNU/WIDER Workshop on Changing Employment Patterns and the Structure of Unemployment in Africa, organized in cooperation with UNU/INRA, 28–29 July, Accra, Ghana.
- UNU/ICTP (International Centre for Theoretical Physics) Workshop on Parallel Processing and Its Applications, 31 July–11 August, Yaoundé, Cameroon.
- A Chamber Music Concert Commemorating the UN's 50th and UNU's 20th Anniversaries, 9 August, Tokyo, Japan.
- UNU/IIST Postgraduate and Postdoctoral Course on Formal Software Development Methods, 16–18 August, Ulaanbaatar, Mongolia.
- UNU International Symposium on Fifty Years Later: The Second World War and Japanese Historical Memory in a Comparative Perspective, 21 August, UNU headquarters.
- Pre-Habitat II Tokyo Conference on World Cities and Urban Future, organized jointly with Japan Habitat Society and National Institute of Research Advancement (NIRA), 23–25 August, UNU headquarters.
- Conference on Human Settlements in Changing Global Political and Economic Processes, organized in cooperation with the Ministry for Environment, Government of Finland, 25–27 August, UNU/WIDER, Helsinki, Finland.
- UNU/INTECH Conference on Productivity, Technical Change and National Innovation Systems in Latin America in the 1990s, 28–30 August, Termas de Cauquenes, Chile.
- UNU Global Seminar '95 Shonan Session, "The UN at 50: Building Peace," 4–8 September, Hayama, Kanagawa Prefecture, Japan.
- UNU/UNESCO Joint Symposium on Science and Culture: Common Path for the Future, organized jointly with UNESCO, 11–14 September, UNU headquarters, Tokyo, Japan.
- UNU/IIST Postgraduate and Postdoctoral Course on Formal Software Development Methods, 11–22 September, Macau.
- Training Course on Solar Energy Utilization, organized by Anna University, 15 September–15 June 1996, Madras, India.
- UNU/BIOLOGICAL Advanced Training Course on Biochemical Engineering Applications in Environmental Biotechnology and Cleaner Production, organized by the Instituto Centroamericano de Investigación y Tecnología Industrial (ICAITI), 18–29 September, Guatemala City, Guatemala.
- UNU/WIDER Workshop on Transnational Corporations in Developed, Developing and Transitional Economies, 21–23 September, Cambridge, UK.
- UNU Seminar on United Nations Reform in the US Perspective, by Prof. Benjamin Rivlin, Director of the Ralph Bunche Institute on the United Nations, and Professor Emeritus of Political Science, City University of New York, USA, 25 September, UNU headquarters.



- UNU Public Seminar on Urban Earthquake Risk Management: Preparing for the Big One in Tokyo, organized jointly with the International Center for Disaster-Mitigation Engineering (INCEDE), Institute of Industrial Science, University of Tokyo, 25–27 September, UNU headquarters.
- UNU Global Seminar '95 Kobe Session on Transforming of Global Society and UN Reform, organized jointly with Kobe International Association, 26–29 September, Kobe, Japan.
- UNU Public Forum on the Lasting Consequences of Low Birth Weight and Early Growth Retardation, by Dr. Nevin S. Scrimshaw, Institute Professor Emeritus, Massachusetts Institute of Technology, and UNU Programme Director, 3 October, UNU headquarters.
- UNU Seminar on Concept of Wider Peace-keeping, by Col. Allan Mallinson, British Army, 4 October, UNU headquarters.
- Lecture on "the Role of the UN in Global Development to commemorate the 50th Anniversary of the United Nations," organized in cooperation with the Finnish Association for Research in International Relations, 4 October, UNU/WIDER, Helsinki, Finland.
- UNU/WIDER Conference on "Perspectives for Global Development and Multilateral Cooperation, UN 50th Anniversary," 5 October, UNU/WIDER, Helsinki, Finland.
- 1995 Fridtjof Nansen Memorial Lecture, "Norway as International Peacemaker," by HE Mr. Jan Egeland, State Secretary in the Norwegian Ministry of Foreign Affairs, 6 October, UNU headquarters.
- Organizational Meeting for CHINAFOODS, under UNU/INFOODS Project, 7–11 October, Beijing, China.
- UNU/BIOLOGICAL Advanced Training Course on Application of Biotechnological Processes, organized by the Instituto de Biología, Universidad Autónoma Nacional de México (UNAM), 9–20 October, Morelos, Mexico.
- High-level Symposium on Peace and Development: Problems of Conflict in Africa, organized jointly with the United Nations and the Ministry of Foreign Affairs of Japan, 11–12 October, UNU headquarters.
- UNU Conference on Sustainable Future of the Global System, organized jointly with the National Institute of Environmental Studies, co-sponsored by the Japan Environment Agency and the UN Commission on Sustainable Development, 16–18 October, UNU headquarters.
- UNU/INTECH participation in UNIDO Global Forum on Industry, 16–18 October, New Delhi, India.
- Tokyo International Dialogue on an Agenda for Reconciliation and Kyosei, organized by the International Moral Re-Armament Association of Japan, in collaboration with UNU, 17 October, UNU headquarters.
- International Symposium on Rivers and People in South-East Asia and the Pacific: Partnership for the 21st Century, organized jointly with the International Hydrological Programme (IHP) Regional Steering Committee for South-East Asia and the Pacific, Yamanashi University and UNESCO, 23–26 October, UNU headquarters.
- UNU/WIDER Public Lecture on "Development Constraints in Africa," by Prof. Giovanni A. Cornia, 25 October, Helsinki, Finland.
- 11th World Communication Forum on Multimedia and Human Resource Development, organized jointly with the Ministry of Posts and Telecommunications of Japan, the Japan Society of Information and Communication Research, and the Japan Foundation for the UNU, 26–27 October, UNU headquarters.
- UNU/WIDER Public Lectures with relation to the 50th Anniversary of the UN on "the Global Economic Institutions vs. Sovereignty," by Prof. Giovanni A. Cornia; and on "the Promotion of Women as Key Factor of Progress," by Dr. Valentine Moghadam, 27 October, Helsinki, Finland.
- University Lecture Series: "Development Economics Towards the 21st Century," by the academic staff of UNU/WIDER, 31 October–12 December, at the University of Helsinki, Finland.
- Workshop on Asia-Pacific Security at Century's End: National, Regional and Global Remifications, organized in cooperation with the Council for Security Cooperation in Asia Pacific and La Trobe University, 30–31 October, UNU headquarters.
- International Conference on Infrastructure Development of Global Scale – Towards Sustainable Development in the 21st Century, organized jointly with Global Infrastructure Fund Research Foundation Japan (GIF), 31 October–2 November, UNU headquarters.
- Meeting for the Feasibility Study on the Proposed Third UNU-Irish Microinformatics Project, 5–11 November, Addis Ababa, Ethiopia.
- UNU Public Forum on Desertification: A Physical and Socio-economic Tragedy in the Drylands, by Prof. Monique Mainguet, Laboratoire de géographie zonale, Université de Reims Champagne-Ardenne, France, 7 November, UNU headquarters.
- UNU Public Forum on Defining and Measuring Sustainability: The Biogeophysical Foundations, 7 November, UN Headquarters, New York, USA.
- UNU/WIDER Workshop on the New Regionalism and the International System – Implications for Development and Security, 14–16 November, Kathmandu, Nepal.
- Regional Symposium on Montane Mainland South-East Asia (MMSEA) in Transition, organized jointly with Chiang Mai University, 12–16 November, Chiang Mai, Thailand.
- UNU Public Forum on Environmental Policy and Trade, by Prof. Heinrich von Lersner, former President of the German Federal Environment Agency, 16 November, UNU headquarters.
- UNU/WIDER-UNESCO Joint Conference on Feasibility of the Establishment of an International Network of Academic Institutions Teaching Global Economics, 17–18 November, UNU/WIDER, Helsinki, Finland.
- UNU/WIDER Workshop on Re-orienting International Development Cooperation for Sustained Growth, Equity and Human Development, 18–19 November, UNU/WIDER, Helsinki, Finland.
- UNU International Symposium on the United Nations in the 21st Century: Meeting the Challenges, held in cooperation with the Academic Council of the United Nations System (ACUNS) and the International Centre for Research Association (ICRA), 21–22 November, UNU headquarters.
- UNU/WIDER Workshop on National Environmental Policies: A Comparative Study of Capacity Building, 24–25 November, Berlin, Germany.
- Workshop III of the UNU Project on Views of the Environment in Asian Countries: Their Relationship to Sustainable Development, organized by the Asian-Pacific Center, Fukuoka, 24–25 November, Fukuoka, Japan.
- Tokyo Symposium on Sustainable Agricultural and Rural Development, organized jointly with the Japanese Institute of Irrigation and Drainage (JIID), 27–29 November, UNU headquarters.
- UNU/IIST One-day Seminar on Trading over the Internet, organized jointly with UniTEL, 28 November, UNU/IIST, Macau.
- Symposium on the Future of Hope: Lessons from the Past, organized jointly with the Asahi Shimbun, 4 December, UNU headquarters.
- Forty-Second Session of the Council of the United Nations University, 4–8 December, UNU headquarters.
- UNU East Asian Faculty Training Workshop on International Environmental Law, 4–9 December, UNU headquarters.
- UNU/IDECG (International Dietary Energy Consultative Group) Workshop on the Causes and Effects of Intrauterine Growth Retardation (IUGR), 11–15 December, Boston, USA.
- UNU Public Forum on the United Nations System in the 21st Century (UN21), 18 December, UN Headquarters, New York, USA.
- Symposium on Future Multilateralism: Tasks and Political Foundation, organized jointly with the Facultad Latinoamericana de Ciencias Sociales (FLACSO), 18–19 December, San Jose, Costa Rica.
- Joint UNU/ICTP Committee Meeting on Microprocessors Programme, 18–20 December, Trieste, Italy.



## Annex 3: Members of the UNU networks—1995

### Members of the University Council

#### Appointed members

- Dr. Lucien F. MICHAUD, SJ (Canada)  
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- Mr. Vladimír DLOUHÝ (Czech Republic)  
Minister, Ministry of Industry and Trade, Czech Republic
- Dr. Donald EKONG (Nigeria)  
Professor and Secretary-General, Association of African Universities, Ghana
- Dr. Salim EL-HOSS (Lebanon)  
American University of Beirut, Lebanon
- Professor J. A. van GINKEL (The Netherlands)  
Rector Magnificus and Professor of Human Geography, Utrecht University, the Netherlands
- Professor Genady Nikolaevich GOLUBEV (Russian Federation)  
Head, Department of World Physical Geography and Geoecology, Faculty of Geography, Moscow State University, Russian Federation
- Professor Françoise HÉRITIER-AUGÉ (France)  
Director, Laboratoire d'anthropologie sociale, Ecole des hautes études en science sociales, Collège de France, France
- Professor Risto IHAMUOTILA (Finland)  
Rector and Professor of Agricultural Policy, University of Helsinki, Finland
- Ambassador Hideo KAGAMI (Japan)  
Former Permanent Representative of Japan to the United Nations
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Professor Emeritus, Korea Advanced Institute of Science and Technology, Republic of Korea
- Professor Madina LY-TALL (Mali)  
Ambassador Extraordinary and Plenipotentiary of the Republic of Mali to France, France
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- Ms. Graça MACHEL (Mozambique)  
President, Foundation for Community Development (FDC), Mozambique
- Ms. Valeria MERINO-DIRANI (Ecuador)  
Executive Director, Corporación Latinoamericana para el Desarrollo (CLD), Ecuador
- Dr. A. P. MITRA (India)  
President, National Academy of Sciences; Bhatnagar Fellow (Council of Scientific and Industrial Research), National Physical Laboratory, India
- Professor Ingrid MOSES (Australia)  
Deputy Vice-Chancellor (Academic), University of Canberra, Australia
- Professor Jacob L. NGU (Cameroon)  
Director, Immunology Biotechnology Laboratories, Cameroon
- Dr. Luis Manuel PEÑALVER (Venezuela)  
President, National Council for Education, Venezuela
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## Programme/project and training coordinations

### Universal human values and global responsibilities

#### The United Nations system, global governance and security

- John DARBY, Centre for the Study of Conflict, University of Ulster, United Kingdom  
 Edward MOXON-BROWNE, Assistant Dean-Research, University of Limerick, Ireland  
 Olga PELLICER, Instituto Matias Romero de Estudios Diplomáticos, Mexico  
 Lawrence William HEINRICH, Jr., United States  
 Brigitte STERN, Centre de droit international (CEDIN), Université de Paris I, France  
 Thomas WEISS, Executive Director, American Council on the United Nations System (ACUNS), Brown University, United States

#### Multilateralism and the United Nations system

- Robert COX, Department of Political Science, York University, Canada  
 James P. SEWELL, Department of Politics, Brock University, Canada  
 Stephen R. GILL, Department of Political Science, York University, Canada  
 Michael G. SCHECHTER, Michigan State University, James Madison College, United States

#### Conflict resolution and ethnicity

- John DARBY, Centre for the Study of Conflict, University of Ulster, United Kingdom

#### Governance, State and society

- Josep M. VALLES, Faculty of Political Science and Sociology, Universitat Autònoma de Barcelona, Spain  
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 Joan PRATS i Catalá, Director del Instituto de Dirección y Gestión Pública, Spain  
 Edith BROWN WEISS, Georgetown University Law Center, United States  
 Andrés PASTRANA, Director, UNU International Leadership Academy (UNU/ILA), Jordan

#### Culture and development

- Yoshio GONDO, Director General, Asian-Pacific Center, Japan

#### Special project: UNU Global Seminar 1995

- Kazuhiko OKUDA, International University of Japan, Japan

### New directions for the world economy

#### Hunger and poverty: The poorest billion

- Jean DREZE, London School of Economics, United Kingdom  
 Amartya SEN, Department of Economics, Harvard University, United States

#### Environment and development

- Partha DASGUPTA, Faculty of Economics and Politics, University of Cambridge, United Kingdom  
 Karl-Göran MÄLER, the Beijer Institute, Sweden

#### Macro-economic policies

- Stephen MARGLIN, Department of Economics, Harvard University, United States

#### The role of State: Transnational corporations

- Robert ROWTHORN, Faculty of Economics, Massachusetts Institute of Technology, United States

#### Medium-term development strategies

- Lance TAYLOR, Department of Economics, Massachusetts Institute of Technology, United States

#### Evolving new market economies in Europe and Asia

- Padma DESAI, Columbia University, United States  
 Harriet MATJEKA, Graduate Institute of International Studies, Switzerland

#### The forest of the South and North

- Matti PALO, Finnish Forest Research Institute, Finland  
 Eustaquio REIS, Directorate Research Institute of Applied Economic Research, Brazil

#### New regionalism and implications for development and security

- Björn HETTNE, Peace and Development Research Institute, University of Gothenburg, Sweden  
 András INOTAI, Institute for World Economics, Hungarian Academy of Science, Hungary  
 Osvaldo SUNKEL, Corporación de Investigaciones para el Desarrollo (CINDE), Chile

#### Restructuring the global military sector

- Mary KALDOR, Sussex European Institute, University of Sussex, United Kingdom

#### Liberalization and its impact on rural economics of South Asia

- Mosharraf HOSSAIN, Centre for Economics, Social and Environmental Research, Bangladesh

#### Trade and industrialization

- Gerald K. HELLEINER, Department of Economics, University of Toronto, Canada

#### Development and security

- Emma ROTHSCILD, Centre for History and Economics, King's College, United Kingdom

#### National environmental policies

- Martin JÄNICKE, Freie Universität Berlin, Germany

#### Re-orienting international development cooperation for sustained growth with equity environment and human development

- Ryokichi HIRONO, Faculty of Economics, Seikei University, Japan

### Sustaining global life-support systems

#### Eco-restructuring for sustainable development

- Shuntaro SHISHIDO, International University of Japan, Japan  
 Robert U. AYRES, European Institute of Business Administration (INSEAD), France  
 Faye DUCHIN, Director, Institute for Economic Analysis, New York University, United States  
 Kimio UNO, Faculty of Policy Management, Keio University, Japan  
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 Carl-Göran HEDEN, The Biofocus Foundation, Sweden  
 LI Wenhua, Commission for Integrated Survey of Natural Resources (CISNAR), Chinese Academy of Sciences, China  
 George CHAN, Mauritius



### Integrated studies of ecosystems

- Bruno MESSERLI, Institute of Geography, University of Berne, Switzerland
- Jack D. IVES, Division of Environmental Studies, University of California, United States
- Maximo LIBERMAN CRUZ, Instituto de Ecología, Bolivia
- Francis F. OJANY, Department of Geography, University of Nairobi, Kenya
- Masahiro MURAKAMI, Research and Development Center, Nippon Koei Co., Ltd., Japan
- Michael H. GLANTZ, Director, Environmental and Societal Impact Group (ESIG), National Centre for Atmospheric Research, United States
- Asit K. BISWAS, International Water Resources Association, United Kingdom
- James K. MITCHELL, Department of Geography, Rutgers University, United States
- Tsunao KATAYAMA, Director, International Center for Disaster-Mitigation Engineering (INCEDE), Institute of Industrial Science, University of Tokyo, Japan

### Information systems for environmental management

- Keiichiro FUWA, Professor Emeritus, University of Tokyo, Japan
- Asit K. BISWAS, International Water Resources Association, United Kingdom
- J.J. WAGNER, Département de minéralogie, Université de Genève, Switzerland
- Tania Maria SAUSEN, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil
- Jose G. TUNDISI, President, National Council for Scientific and Technological Research (CNPq), Brazil
- Ingvar Birgir FRIDLEIFSSON, Director, ORKUSTOFNUN, National Energy Authority, Iceland
- H.P. GARG, Centre for Energy Studies, Indian Institute of Technology, India
- R.K. PACHAURI, Director, Tata Energy Research Institute, India
- Satyendra R. GUPTA, Asian Disaster Preparedness Center, Thailand
- A. N. RAO, Head, Centre for New and Renewable Sources of Energy, Anna University, India
- Newton MULLER PEREIRA, Instituto de Geociencias, Universidade Estadual de Campinas (UNICAMP), Brazil

### Advances in science and technology

#### Applications of biotechnology for development

- Camilo DAZA RAMIREZ, UNU Programme for Biotechnology in Latin America and the Caribbean (UNU/BIOLAC), Venezuela
- Howard TAKIFF, Head, Laboratory of Molecular Genetics, Instituto Venezolano de Investigaciones Científicas (IVIC), Venezuela
- Julius FRANK, Former Director of the Animal Diseases Research Institute, Canada
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- Luis HERRERA-ESTRELLA, Head, Genetic Engineering Department, Centro de Investigación y de Estudios Avanzados del I.P.N., Unidad Irapuato, Mexico
- Alejandro MENTABERRY, Instituto de Investigaciones en Ingeniería Genética y Biología Molecular (INGEBI), Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina
- Paulo ARRUDA, Centro de Biología Molecular e Ingeniería Genética, Brazil

### Microprocessors and Informatics

- Ines WESLEY-TANASKOVIC, c/o Microprocessor Laboratory, International Centre for Theoretical Physics (ICTP), Italy
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- Luchiano BERTOCCHI, Deputy Director, International Centre for Theoretical Physics (ICTP), Italy
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- Joachim TANKOANO, University of Ouagadougou, Burkina Faso
- Michel BERNADOU, Institut national de recherche en informatique et en automatique (INRIA), France

### Population dynamics and human welfare

#### Population, urbanization and development

- Alan GILBERT, Department of Geography, University College London, United Kingdom
- Carole RAKODI, Department of City and Regional Planning, University of Wales, United Kingdom
- Tatsuhiko KAWASHIMA, Faculty of Economics, Gakushuin University, Japan

#### Population, land management and environmental change (PLEC)

- Harold BROOKFIELD, Research School of Pacific Studies, Australian National University, Australia

#### Food and nutrition for human and social development

- Nevin S. SCRIMSHAW, Massachusetts Institute of Technology, United States
- Barbara BURLINGAME, Nutrition Programme Leader, New Zealand Institute for Crop and Food Research, New Zealand
- Aree VALYASEVI, Institute of Nutrition, Mahidol University, Thailand
- Lilian MAROVATSANGA, Director, Nutrition Institute, University of Zimbabwe, Zimbabwe
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- Beat SCHURCH, International Dietary Energy Consultative Group (IDECG), c/o Nestlé Foundation, Switzerland
- Fernando E. VITERI, University of California, Berkeley College of Natural Resources, United States
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- Cutberto GARZA, Division of Nutritional Sciences, Cornell University, United States
- Kent K. STEWART, Virginia Polytechnic Institute and State University, United States
- V. PRAKASH, Director, Central Food Technological Research Institute (CFTRI), India
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## Annex 4: UNU titles published in 1995

### Books

- Amazonia: Resiliency and Dynamism of the Land and Its People*  
By Nigel J.H. Smith, Emanuel Adilson S. Serrão, Paulo T. Alvim, and Italo C. Falesi, UNU Press
- Arms Reduction: Economic Implications in the Post-Cold War Era*  
Edited by Lawrence R. Klein, Fu-chen Lo, and Warwick J. McKibbin, UNU Press
- Capital, the State and Labour: A Global Perspective*  
Edited by Juliet Schor and Jong-Il You, UNU/WIDER with Edward Elgar, UK
- Easternisation: The Spread of Japanese Management Techniques to Developing Countries*  
By Raphael Kaplinsky, and Anne Posthuma, UNU/INTECH with Frank Cass
- Minzoku mondai: Funso, kaihatsu, jinken*  
[Japanese edition of *The Ethnic Question: Conflicts, Development and Human Rights*]  
By Rodolfo Stavenhagen, UNU Press with Ochanomizu Shobo, Japan
- The Evolving New Global Environment for the Development Process*  
Edited by Mihály Simai, UNU Press
- The Fragile Tropics of Latin America: Sustainable Management of Changing Environments*  
Edited by Toshie Nishizawa and Juha I. Uitto, UNU Press
- El futuro ecológico de un continente: una visión prospectiva de la América Latina, vols. I and II*  
Compiled by Gilberto C. Gallopín, Isabel A. Gómez, A.A. Pérez, and Manuel Winograd, UNU Press with Fondo de Cultura Económica, Mexico
- Exporting Africa*  
Edited by Samuel Wangwe, UNU/INTECH with Routledge, UK
- Gender and Development in the Arab World – Women's Economic Participation: Patterns and Policies*  
Edited by Nabil F. Khoury and Valentine M. Moghadam, UNU/WIDER with Zed Books, UK
- Global Employment: An International Investigation into the Future of Work, vols. I and II*  
Edited by M. Simai, V. Moghadam, and A. Kuddo, UNU/WIDER with Zed Books, UK
- Hydropolitics along the Jordan River: Scarce Water and Its Impact on the Arab-Israeli Conflict*  
By Aaron T. Wolf, UNU Press
- In Place of the Forest: Environmental and Socio-economic Transformation in Borneo and the Eastern Malay Peninsula*  
By Harold Brookfield, Lesley Potter, and Yvonne Byron, UNU Press
- In Pursuit of Science and Technology in Sub-Saharan Africa*  
By John Enos, UNU/INTECH with Routledge, UK
- Managing Water for Peace in the Middle East: Alternative Strategies*  
By Masahiro Murakami, UNU Press
- Manufacturing for Export in the Developing World: Problems and Possibilities*  
Edited by G. K. Helleiner, Routledge, UK
- Marijuana in the "Third World": Appalachia, U.S.A.*  
[Vol. 5 of Studies on the Impact of the Illegal Drug Trade]  
By Richard Clayton, UNU Press with Lynne Rienner Publishers, Inc., USA
- Mexico's "War" on Drugs: Causes and Consequences*  
[Vol. 3 of Studies on the Impact of the Illegal Drug Trade]  
By María Celia Toro, UNU Press with Lynne Rienner Publishers, Inc., USA
- Modelling Global Change*  
Edited by Lawrence R. Klein and Fu-chen Lo, UNU Press
- The North, the South and the Environment: Ecological Constraints and the Global Economy*  
Edited by V. Bhaskar and Andrew Glyn, UNU Press with Earthscan Publications, UK
- Las Nuevas Tecnologías y el Futuro de América Latina: Riesgo y Oportunidad*  
Edited by Amílcar Herrera, Leonel Corona, Renato Dagnino et al., UNU Press with Siglo Veintiuno Editores, Mexico
- The Political Economy of Hunger: Selected Essays (WIDER Studies in Development Economics)*  
Edited by Jean Drèze, Amartya Sen, and Athar Hussain, Clarendon Press Oxford, UK
- Politics of Technology in Latin America*  
Edited by Maria-Ines Bastos and Charles Cooper, UNU/INTECH with Routledge, UK
- State, Society, and the UN System: Changing Perspectives on Multilateralism*  
Edited by Keith Krause and W. Andy Knight, UNU Press
- Regions at Risk: Comparisons of Threatened Environments*  
Edited by Jeanne X. Kasperon, Roger E. Kasperon, and B.L. Turner II, UNU Press
- Steering Business Toward Sustainability*  
Edited by Fritjof Capra and Gunter Pauli, UNU Press
- Strengthening the Family: Implications for International Development*  
By Marian F. Zeitlin, Ratna Megawangi, Ellen M. Kramer, Nancy D. Colletta, E.D. Babatunde, and David Garman, UNU Press
- Sustainable Management of Soil Resources in the Humid Tropics*  
By Rattan Lal, UNU Press
- Unintended Consequences: Illegal Drugs and Drug Policies in Nine Countries*  
[Vol. 4 of Studies on the Impact of the Illegal Drug Trade]  
By LaMond Tullis, UNU Press with Lynne Rienner Publishers, Inc., USA
- The United Nations System: The Policies of Member States*  
Edited by Chadwick F. Alger, Gene M. Lyons, and John E. Trent, UNU Press
- A Vision of Hope: Asu e no tembo (English and Japanese version)*  
UNU Press with Regency Corporation Ltd., UK
- Women, Culture and Development: A Study of Human Capabilities*  
Edited by Martha C. Nussbaum and Jonathan Glover, Clarendon Press Oxford, UK
- Women Encounter Technology: Changing Patterns of Employment in the Third World*  
Edited by Swasti Mitter and Sheila Rowbotham, UNU/INTECH with Routledge, UK



## Other publications

### Academic Division

#### Journals:

- Abstracts of Selected Energy Technology (ASSET)*, vol. 16, nos. 2–3, vol. 17, no. 1–3  
Tata Energy Research Institute (TERI), India
- Food and Nutrition Bulletin*, vol. 16, nos. 1–3  
UNU Press
- Global Environmental Change: Human and Policy Dimensions*, vol. 5, nos. 1–3  
Butterworth-Heinemann, UK
- Global Governance: A Review of Multilateralism and International Organizations*, vol. 1, nos. 1–3  
Lynne Rienner Publishers, Inc., USA
- Journal of Food Composition and Analysis*, vol. 8, nos. 1–3  
Academic Press, Inc., USA
- Mountain Research and Development*, vol. 14, nos. 1–4, vol. 15, nos. 1–3  
University of California Press, USA, for UNU and International Mountain Society (IMS), USA

#### Conference and other reports:

- Asian Water Forum: Mekong, and Ganges-Brahmaputra Rivers*  
[Held at UNU headquarters 28 January–1 February 1995]  
Edited by Aaron T. Wolf and Iwao Kobori, UNU
- Beyond Violence: Conflict Resolution Processes in Northern Ireland*  
By Mari Fitzduff, UNU
- Building Peace: Sustainable Reconciliation in Divided Societies*  
[Monograph Series on Governance and Conflict Resolution]  
By John P. Lederach, UNU
- New Dimensions of United Nations Peace-keeping Operations*  
[Report of the Tokyo Symposium held 19–20 January 1995]  
Rapporteurs: Terrence Markin, Robert Orr, and Timothy Wilkins
- Peaceful and Constructive Resolution of Situations Involving Minorities*  
[Monograph Series on Governance and Conflict Resolution]  
By Asbjorn Eide, UNU
- Technology Transfer and Development*  
[Japan-ASEAN Forum IV]

#### Lecture series:

- The Danube: Environmental Management of an International River*  
By Libor Jansky, UNU
- Why the Quest Was Uncertain*  
By Jean-Jacques Salomon, UNU

### UNU/WIDER

#### Research for Action series:

- Habitat II and the Urban Economy: A Review of Recent Developments and Literature*,  
By Pii Elina Berghäll
- Impacts of Africa's Growing Debt on its Growth*,  
By Siddig A. Salih
- Internationalization of Finnish Firms and Their Response to Global Challenges*,  
By Reijo Luostarinen
- Trends in International Cooperation and Net Resource Transfers to Developing Countries*,  
By Krishnalekha Sood

#### Working papers:

- WP 117 *Sustainable Ecosystem in Africa: Managing Natural Forest in Sudan*, by Siddig A. Salih
- WP 118 *Employment-Based Safety Nets: Exploring an Alternative Approach to Limit the Adverse Consequences of Recurrent Droughts in Ethiopia*, by Derseh Endale

### World Development Studies:

- No. 1 *Small Islands, Big Issues: Crucial Issues in the Sustainable Development of Small Developing Islands* (comprising six case studies which have been prepared at the request of the UN Department for Policy Coordination and Sustainable Development for presentation at the Global Conference on the Sustainable Development of Small Island Developing States held in Barbados in April/May 1994)
- No. 2 *Emerging Labour Markets: Labour Market Developments and Transitional Unemployment in Central and Eastern European Countries*, by Arvo Kuddo
- No. 3 *Food Security in Africa: Concepts, Measurement, Policy and Reality*, by Siddig A. Salih
- No. 4 *Economic Reforms, Women's Employment, and Social Policies: Case Studies of China, Viet Nam, Egypt, and Cuba*, edited by Valentine M. Moghadam
- No. 5 *The Limits of the Global Village: Globalization, Nations and the State*, by Hernando Gómez Buendía
- No. 6 *Trade, Trade Policy and Industrialization Reconsidered*, by G. K. Helleiner

#### Reports:

- Report on the Main Issues of the UNU/WIDER Conference on the Politics and Economics of Global Employment* (17–18 June 1994, Helsinki, Finland)
- Report of the Conference on Human Settlements in the Changing Global Political and Economics Processes* (25–27 August 1995, Helsinki, Finland)
- Report of the Workshop on Changing Employment Patterns and the Structure of Unemployment in Africa* (28–29 July 1995, Accra, Ghana), by Derseh Endale

### UNU/INTECH

#### Discussion papers:

- #9501 "Intellectual Property Protection, Market Orientation and Location of Overseas R&D Activities by Multinational Enterprises," by Nagesh Kumar, March 1995
- #9502 "New Technologies, Scale and Scope, and Location of Production in Developing Countries," by Ludovico Alcorta, March 1995
- #9503 "Telecommunication Industry in Brazil: Public-Private Relationship and Technology Development," by Maria-Ines Bastos, April 1995
- #9504 "Industrialization, Liberalization and Two Way Flows of Foreign Direct Investment: The Case of India," by Nagesh Kumar, June 1995
- #9505 "What Hope Can Democracy Bring to S&T Policy Making in Latin America?," by Maria-Ines Bastos, June 1995
- #9506 "Technological Upgrading, Manufactured Exports and Optimal Accumulation," by Charles Cooper and Roy Turner, September 1995
- #9507 "International Linkages, Technology and Exports of Developing Countries: Trends and Policy Implications," by Nagesh Kumar, August 1995
- #9508 "The Impact of Industrial Automation on Industrial Organization: Implications for Developing Countries," by Ludovico Alcorta, October 1995
- #9509 "Investment in Innovation and Technological Adaptability in Latin America and the Caribbean," by Ludovico Alcorta and Wilson Peres, October 1995

#### Working papers:

- WP 14 *The Harmonisation of the Protection of Intellectual Property: Impact on Third World Countries*, by Sandro Sideri, June 1994
- WP 15 *Technology, Trade and NAFTA's Environmental Regime*, by Alejandro Nadal Egea, January 1995



- WP 16 Spin-Off Enterprises in China: Channelling the Components of R&D Institutions into Innovative Businesses, by Shulin Gu, December 1994
- WP 17 A Review of Reform Policy for the S&T System in China: From Paid Transactions for Technology to Organizational Restructuring, by Shulin Gu, January 1995
- WP 18 Opportunities and Constraints for Sustainable Development in Semi-Arid Africa, by Henk Breman, March 1995
- WP 19 Enforcement Issues for Environmental Legislation in Developing Countries, by Michael Faure, March 1995

#### Workshop reports:

*Industrial Policies for the 21st Century: New Technology and Women's Work, 29–31 March 1995, New Delhi, edited by Swasti Mitter in collaboration with Asha Spaak and Himadri K. Dhanda with assistance from Jane Williams*

## UNU/IIST

### Reference Handbooks (RH):

- UNU/IIST Programme*, RH I.4.1
- On UNU/IIST Fellowships*, RH II.3.4
- [How to Engage in] Joint Projects with UNU/IIST*, RH II.2.3
- Software Support for Infrastructures*, RH II.2.2
- Off-shore UNU/IIST Software Technology Laboratories*, RH II.16
- The Computing Component*, RH II.16.1
- The Library Component*, RH II.16.2
- List of Seminal Books*, RH II.16.2.1
- List of Relevant ACM + IEEE/CS Journals*, RH II.16.2.2
- Viet Nam IT'2000*, RH II.5.3.16
- Hanoi Postgraduate & Post-doctoral Course, February 1995*, RH II.6.3.16
- Penang Postgraduate & Post-doctoral Course, June 1995*, RH II.6.3.17
- Bangalore Postgraduate & Post-doctoral Course, December 1995*, RH II.6.3.18
- UNU/IIST Research Tactics*, RH II.7.1.4
- Railway Systems, Project (and UNU/IIST Reference Handbook) Directory*, RH VII (RH II.5.3.1)
- Telecommunications Systems, Project Directory*, RH XV
- Road Systems, Project Directory*, RH XVI (RH II.5.3.20)
- Air Traffic Systems, Project Directory*, RH XII (RH II.5.3.18)
- Library Systems, Project Directory*, RH XIII (RH II.5.3.21)
- Manufacturing Industry Systems, Project Directory X* (RH II.5.3.9)
- Geo- and Demographic Information Management Systems, Project Directory XVII* (RH II.5.3.4)
- Macau Systems, Project Directory VIII* (RH II.5.3.5)
- Sustainable Development Systems, Project (and UNU/IIST Reference Handbook) Directory XIV* (RH II.9.6.6)
- (UNU/IIST's) Dissemination Strategy & Tactics*, RH II.8.1
- In-house [UNU/IIST] Seminars & Colloquia: 1995*, RH II.14.1

### Other documents:

"MaGICS: A Macau General Information and Command System," by Achim Schneider, Alex Lai lat Long and Dines Bjørner, unreleased UNU/IIST Report, 10 January 1995

### Reports and notes:

- "MI2CI: Informal Domain Analysis" (Technical Note RH X), by Cleta Milagros Acebedo and Erwin Paguio
- "MI2CI: Software Architecture" (Technical Note RH X), by Cleta Milagros Acebedo, Erwin Paguio, and Tomasz Janowski

- "Airline Business Computing 2000: Formal Domain Analysis" (Technical Note), by Dao Nam Anh
- "Airline Business Computing 2000: Informal Domain Analysis" (Technical Note), by Dao Nam Anh
- "Airline Business Computing 2000: Requirements Capture" (Technical Note), by Dao Nam Anh
- "Domain Analysis—A Prerequisite for Requirements Capture" (Technical Report 37), by Dines Bjørner, Chris George, and Søren Prehn
- "New Software Technology Development" (Technical Report 46), by Dines Bjørner
- "Infrastructure Software Systems" (Technical Report 58), by Dines Bjørner
- "Software Support for Infrastructure Systems" (Technical Report 47), by Dines Bjørner
- "Software Systems Engineering from Domain Analysis to Requirements Capture" (Technical Report 48), by Dines Bjørner
- "Scheduling and Rescheduling of Trains" (Technical Report 52), by Dines Bjørner, Chris George, and Søren Prehn
- "Semantics of Systems from Application Domain Analysis to Requirements Capture with Some Notes on Software Architecture: A Methodology Study" (Technical Note), by Dines Bjørner and Karl P.H. Leung
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- “The Formal Development of a Railway Station Route Management System” (M.Sc. Thesis, University of Macau), by Dong Yu Lin, available from UNU/IIST
- “A Genetic Concurrent Distributed Architecture” (Technical Note), by Hong Mei
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- “Magics: A Macau General Information and Command System” (Technical Note), by Achim Schneider, Alex Lai Iat Long, and Dines Bjørner
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## Annex 5: UNU depository libraries around the world

<b>Australia:</b>	National Library of Australia, Canberra	<b>Jordan:</b>	The University of Jordan Library, Amman
<b>Bahrain:</b>	Bahrain University Library, Manama	<b>Kenya:</b>	University of Nairobi Library, Nairobi
<b>Bangladesh:</b>	Bangladesh Institute of Development Studies Library, Dhaka Dhaka University Library, Dhaka	<b>Malaysia:</b>	University of Malaya Library, Kuala Lumpur
<b>Belgium:</b>	Bibliothèque Royale Albert 1er, Brussels Commission of the European Communities Library, Brussels	<b>Mexico:</b>	Biblioteca Daniel Cosío Villegas, Mexico City
<b>Botswana:</b>	University of Botswana Library, Gaborone	<b>Nepal:</b>	Royal Nepal Academy of Science & Technology Library, Kathmandu
<b>Canada:</b>	McGill University Libraries, Quebec University of Toronto Library, Toronto	<b>Netherlands:</b>	Universiteitsbibliotheek (University Library), Amsterdam
<b>China:</b>	National Library of China, Beijing	<b>Nigeria:</b>	National Library of Nigeria, Lagos
<b>Colombia:</b>	Biblioteca General, Universidad de los Andes, Bogotá	<b>Peru:</b>	Biblioteca Central de la Pontificia, Universidad Católica del Perú, Lima
<b>Denmark:</b>	Det Kongelige Bibliotek (The Royal Library), Copenhagen Statsbiblioteket (State and University Library), Aarhus	<b>Philippines:</b>	University of the Philippines at Los Baños Library, Laguna University of the Philippines Law Complex Library, Quezon City
<b>Ethiopia:</b>	Addis Ababa University Libraries, Addis Ababa	<b>Poland:</b>	Biblioteka Szkoły Głównej Planowania i Statystyki (Library of the Central School of Planning and Statistics), Warsaw
<b>Fiji:</b>	The University of the South Pacific Library, Suva	<b>Saudi Arabia:</b>	Ministry of Planning Library, Riyadh
<b>Finland:</b>	Helsinki University Library, Helsinki	<b>Senegal:</b>	Bibliothèque de l'Université de Dakar, Dakar
<b>France:</b>	Bibliothèque nationale, Paris	<b>Sierra Leone:</b>	Fourah Bay College Library, Freetown
<b>Germany:</b>	Die Deutsche Bibliothek, Leipzig Universitätsbibliothek, Freiburg	<b>Sri Lanka:</b>	Marga Institute Library, Sri Lanka Centre for Development Studies, Colombo
<b>Ghana:</b>	The Balme Library, University of Ghana, Accra	<b>Surinam:</b>	United Nations Depository Library, Anton de Kom Universiteit, Paramaribo
<b>Guatemala:</b>	Biblioteca Central, Universidad de San Carlos de Guatemala, Guatemala City	<b>Sweden:</b>	University Library, Lund University of Uppsala Library, Uppsala
<b>Guyana:</b>	University of Guyana Library, Georgetown	<b>Tanzania:</b>	University of Dar es Salaam Library, Dar es Salaam
<b>Hungary:</b>	Library of the Hungarian Parliament, Budapest	<b>Thailand:</b>	Central Library, Chulalongkorn University, Bangkok
<b>Iceland:</b>	Landsbókasafn Islands (National Library of Iceland), Reykjavík	<b>Trinidad &amp; Tobago:</b>	The Main Library, the University of the West Indies, Trinidad
<b>India:</b>	Bangalore University Library, Bangalore H. T. Parekh Library, Madras Jawaharlal Nehru University Library, New Delhi The National Science Library, New Delhi	<b>Tunisia:</b>	Arab League Educational, Cultural & Scientific Organization Library, Tunis
<b>Indonesia:</b>	National Library of Indonesia, Jakarta	<b>Uganda:</b>	Makerere University Library, Kampala
<b>Israel:</b>	Elias Sourasky Library, Tel-Aviv University, Tel-Aviv	<b>United Kingdom:</b>	The British Library, London
<b>Jamaica:</b>	University of the West Indies Library, Kingston	<b>United States:</b>	Joint Bank-Fund Library, Washington, D.C. The Library of Congress, Washington, D.C.
<b>Japan:</b>	National Diet Library, Tokyo University of Tokyo Library, Tokyo	<b>Zambia:</b>	The University Library, Lusaka
		<b>Zimbabwe:</b>	University of Zimbabwe Library, Harare



(Continued from the inside front cover.)

**UNU International Institute for Software Technology (UNU/IIST), Macau (July 1992)**

UNU/IIST aims to assist developing countries in meeting needs and in strengthening capabilities for their self-reliance in three activity areas:

- (1) development of software for their own purposes and for export;
- (2) university education curriculum development; and
- (3) participation in international research.

UNU/IIST is meant also to help bridge gaps between theory and practice, university and industry, consumer and producer and industrialized countries and developing countries. In its programme activities, UNU/IIST concentrates on advanced joint research and development projects, postgraduate curriculum development, and dissemination of public domain software and publications—all involving fellowships at UNU/IIST in Macau and with partners in developing countries.

**UNU Institute for Natural Resources in Africa (UNU/INRA), Accra, Ghana, with a mineral resources unit in Lusaka, Zambia (April 1990)**

In order to assist in the efforts to enhance management and rehabilitation of Africa's natural resources by the Africans themselves and by the world community, the UNU Council approved the establishment of an Institute for Natural Resources in Africa (UNU/INRA) in 1986. The main objectives of UNU/INRA are to strengthen national institutions in Africa, help mobilize scientists and technologists throughout the continent, and provide them with the capacity to generate and apply knowledge and innovative technologies for productive work and for the formulation of planning and policy options, as well as increase understanding of the socio-economic and other aspects of natural resources in the context of self-reliant development. The focus of the programme activities is on:

- (1) soil and water conservation and management;
- (2) indigenous African food crops and other useful plants; and
- (3) mineral resources development.

**The Academic Division** at the UNU headquarters in Tokyo also coordinates a number of programme and project networks involving institutions around the world on subjects ranging from multilateralism and the United Nations system to mountain ecology and sustainable development to implications of demographic change and urbanization.

The University has a **Programme for Biotechnology in Latin America and the Caribbean (UNU/BIOLAC)**, Caracas, Venezuela (July 1988), to develop and promote biotechnology in the region. The UNU also has the International Leadership Academy (UNU/ILA), Amman, Jordan (April 1995), to serve as a focal point for the exchange of information and experience among young potential and future leaders of the world.

**Postgraduate training activities**

Between 1976 and 1995, some 1,400 UNU fellows received postgraduate training in the University's networks. The UNU's postgraduate training programme seeks to help strengthen institutional capacities in developing countries for promoting self-reliant development and to provide opportunities for scholars and scientists especially from developing countries to be involved in UNU research networks thereby promoting active academic exchanges. Fellows are selected after recommendations from their home institutions which must be working in an area of concern to the University and candidates must be committed to returning to work at their home institutions.

**Dissemination activities**

The University has its own press producing academic publications and also cooperates in the production of six professional journals. *Work in Progress*, *UNU Nexions*, and several brochures issued by the UNU's Public Affairs Section are the University's main information vehicles which report on ongoing research and developments within the University's academic networks.

**Financing**

The UNU receives no funds from the regular budget of the United Nations. The activities of the University are supported entirely by way of voluntary contributions from governments, agencies and foundations. The University's basic annual income for operating expenses comes from investment income derived from its Endowment Fund. The annual budget of the University in 1995 was approximately US\$33.3 million.

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