



The United Nations
University

Annual Report 1999

Environment and Sustainable Development Programme

Exploring the Environmental Frontiers Towards a Sustainable Society

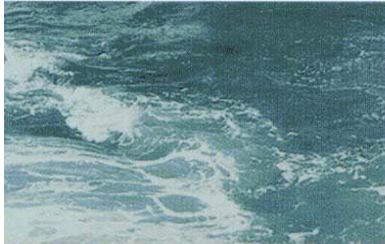


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World Environment Day 99 at UNU Headquarters

ESD Website: <http://www.unu.edu/env/>

1. 1999 – A Year in Review

The year 1999 was a challenging and exciting year for the Environment and Sustainable Development (ESD) Programme. A new mid-term Strategic Plan was developed for the whole programme. This was accompanied by streamlining and re-thinking of our activities. Start of a new fiscal biennium period – spanning the years 2000 and 2001 – provided opportunities to look closely at our activities through the lens of the Strategic Plan and to develop programmes that will carry us through the threshold of the new millennium.

During 1999, the ESD Programme was successful in starting several new initiatives and securing substantial financial support from various donor agencies. ESD's on-going programme on People, Land Management and Environmental Change (PLEC) pursued strong research and training activities at its various clusters across the world. UNEP also provided the PLEC programme with a laudatory and favorable mid-term Project Implementation Review.

The UNU programme on Coastal Hydrosphere issues also grew significantly in terms of its activities, the level of support by outside donors, and the number of partners. This programme was joined by the University of Philippines (as a representative of the Philippines), Ocean Research Institute (ORI) of the University of Tokyo, UNESCO, the International Society for Mangroves Ecosystems (ISME) and the Iwate Prefectural Government. This new phase of activities is planned for another three years – beyond the scope of the next biennium.

An ambitious programme focused on coping with environmental disasters and their societal impacts was launched in 16 countries jointly with the UN Environment Programme (UNEP) and the National Center for Atmospheric Research (NCAR), Colorado, USA. This project will lead the way to a major capacity building programme between NCAR and UNU.

The Zero Emissions Forum (ZEF) was successfully launched together by the ESD Programme and the UNU Institute of Advanced Studies (UNU/IAS). This is a logical continuation of the Zero Emissions Research Initiative started by UNU some five years ago. ZEF was able to bring together representatives from business, government and the scientific community in an international conference in Tokyo, with three major objectives in sight: research, capacity building, and networking.

Building on previous work focused on Asia (Weder, 1999), the UNU undertook a survey of bureaucratic structure and performance in Africa in collaboration with the African Economic Research Consortium (AERC). Given that this was the first time that extensive cross-country work on this important issue has been undertaken in the region, the results have generated much interest from both researchers and policy makers.



The Interlinkages Conference – July 1999

Several academic and environmentally-oriented activities of the ESD Programme were received enthusiastically by the international community and Japanese citizens alike. Most striking example of this is the mid-year conference on Interlinkages between Multilateral Environmental Agreements (MEAs). This conference was quite successful in attracting high-level officials from the secretariats of various MEAs, as well as

academicians and researchers in the respective fields. More follow-up activities to this conference are being planned for the next biennium. The World Environment Day 99 activities this year were marked by festivity and an elevated interest by the Tokyo residents.

A number of visiting scholars contributed to the research programme at ESD during 1999. One of these scholars – Dr. Brook Boyer from the University of Geneva – will continue to work at UNU through most of next year as well; his research is focused on analyzing the composition, organizational structure and decision-making styles of the national councils for sustainable development in Asia. Dr. Deny Hidayati (PPT-LIPI, Indonesia) stayed at UNU during latter part of 1998 and early part of this year; her research work provided valuable contribution to the field of coastal management in ASEAN countries – which is quite relevant to the Coastal Hydrosphere programme. Mr. Dieter Koenig from UNCTAD also stayed at UNU for several months through the end of this year, during which time his research work focused on trade, transfer and diffusion of environmentally-sound technologies. This research addresses a basic element of sustainable development in the Third World countries. Mr. Rüdiger Kühr (Osnabrück University, Germany) also contributed to the ZEF activities during his stay at UNU as a visiting fellow.

The ESD programme also faced some major challenges during the year – which saw the departure of an experienced officer of some nine years, Dr. Juha Uitto. The ESD unit also continued to streamline its day-to-day operative procedures and developed a new website (<http://www.unu.edu/env/>). The ESD programme was able to rally together as a team to cope with these challenges. Dr. Hari Srinivas joined the ESD unit as a Programme Associate. At the end of the year, Dr. Libor Jansky also joins the programme from Bratislava as a new officer. Both of these professionals bring a broad range of expertise with them. Ms. Yumi Tomita also joined the programme as a secretary to work directly with the Vice Rector. It is anticipated that the ESD programme will grow stronger with these and other additions to the programme staff.

The UNU ESD Team

Prof. Motoyuki Suzuki, Vice-Rector
Prof. Iwao Kobori, Programme Advisor
Dr. Libor Janský, Senior Academic Programme Officer (from November 1999)
Dr. Juha Uitto, Senior Academic Programme Officer (till April 1999)
Dr. Zafar Adeel, Academic Programme Officer
Mr. Luohui Liang, Managing Coordinator - PLEC
Mr. Julius Court, Programme Coordinator
Mr. Satoru Hirose, Programme Coordinator - ZEF
Dr. Hari Srinivas, Programme Associate
Ms. Makiko Yamauchi, Project Research Assistant

Dr. Jerry Velasquez, Programme Coordinator GEIC
Ms. Yoko Kobayashi, Programme Assistant GEIC
Ms. Makiko Yashiro, Project Assistant GEIC
Ms. Hiroko Shimizu, Receptionist GEIC

Ms. Masako Ebisawa, Senior Administrative Assistant
Ms. Hiroko Kuno, Administrative Assistant
Ms. Yumi Tomita, Secretary

Dr. Brook Boyer, Visiting Scholar
Mr. Dieter Koenig, Visiting Scholar

2. ESD Strategic Plan

Mission Statement

The overall strategy of the ESD Programme is governed by the mission of the University to contribute – through research and capacity building – to efforts to resolve the pressing global problems of human survival, development and welfare that are the concern of the United Nations and its member states. The ESD programme focuses on the interactions between human activities and the natural environment and their implications for the sustainable management of natural resources. Logically, we are also engaged in finding innovative solutions to the problems of environmental governance and monitoring tools required for designing and implementing effective environmental policies.

The objective of the ESD programme is to contribute to better understanding and management of issues related to the global environment, natural resources management, and sustainable development. It is seen that these cannot be seen as solely technical problems in isolation from the society. It is equally important to consider the social, economic, political and cultural factors that affect and sometimes impede the move towards environmentally sound development and resource management. Equity issues between the North and South, as well as between different individuals and groups in a society, are seen as intrinsically intertwined with sustainable development. The programme, therefore, takes a multidisciplinary approach combining both natural and social sciences.

Strategic Plan Development

A guiding principle for preparing the Strategic Plan was the need to streamline the programme focus – this was apparent in discussions during the 45th session of the UNU Council. There was also a certain amount of opportunism in programme development when external funding has been available. The process of streamlining the programme and defining focal areas was initiated during the Strategic Plan development and will continue in future, giving due consideration to the limited personnel resources of the ESD unit. Such streamlining will greatly enhance the impact of our activities through engaging in fewer, more focused projects.

In selecting our themes, the need for developing a unique role for UNU as well as a comparative advantage over other research institutions and UN organizations is emphasized. Therefore, close attention is paid to the following selection criteria:

- The topic must respond to a pressing global problem for human survival, development and welfare;
- The problem should be of relevance to the UN system and the international community as a whole;
- The research should bear relevance especially to the developing world;
- There is a lack of knowledge on the causes of the problem and its potential solutions, so that UNU can make a real contribution through research, training and capacity building;
- The project is multidisciplinary in its nature and lends itself to be implemented through international networks and partnerships involving scholars and institutions from both the South and North;
- Sufficient human and financial resources are available for implementing the activities. Particularly, presence of expertise within the UNU staff and its immediate networks and existence of prior experience within UNU are important considerations.

Overview of the Strategic Plan

The broad themes for the programme have been selected after in-depth discussions and introspection within the programme and some input from related RTC/Ps. Due consideration has been given to the on-going activities during this selection process. At the same time, the best use of the limited available human and financial resources has been critically evaluated. This approach has resulted in the decision to eliminate some activities in due course, while identifying new areas and activities. On the whole, the effect is a more streamlined and efficiently organized programme.

Five broad themes are identified for the ESD programme. These include: natural resource management, water crises, global environmental governance, sustainable urban and industrial development, and sustainable human development.

Natural Resource Management

The Agenda 21 recognizes the urgent need for utilizing our natural resources in a sustainable manner while minimizing their depletion and pollution. Therefore, activities undertaken by UNU under this theme are particularly focused on conservation of biological diversity, mitigation of the effects of desertification and sustainable management of mountain resources and ecosystems. A major long-term project under this theme is People, Land Management and Environmental Change (PLEC). The overarching goal of this global project is to develop sustainable and participatory approaches to biodiversity conservation within agricultural regions located in priority ecosystems such as forests, mountains, semi-arid, freshwater and wetlands. Working in close collaboration with farmers and local communities, the PLEC approach is to integrate locally developed knowledge with scientific assessments so that crop and management diversities are maintained.

Another area of ESD's activities under the Natural Resource Management theme focuses on land degradation, biodiversity conservation and water resource management. Geographically, these activities lay emphasis on Northern Africa, Middle East, Central Asia and China. Capacity building by developing a network of researchers and holding interactive workshops comprises a major portion of the activities.

Global Environmental Governance

It is a daunting task to comprehend and manage the complex and often, non-linear linkages between environmental, economic and social issues. For successful achievement of this, a long-term view has to be taken while being responsive to immediate needs and realities. It is in this context of interactions between ecosystems, economic sectors and societies in general, that the ESD Programme has identified a role for itself as a bridge between policy formulation and its implementation.

ESD's activities under this theme area include an initiative to promote policy research on linkages between different multilateral environmental agreements (such as various UN conventions) both national and international levels – where the results are disseminated through policy briefs pertinent to implementation strategies and mechanisms. It is also pertinent to seek the development of tools and models that may be useful in implementation and evaluation of strategies. Therefore, ESD seeks to serve as a catalyst for developing globally integrated models through an international network of modelers.

The programme activities also emphasize on development of institutions and governance structure to improve preparedness against adverse impacts of extreme climate phenomena. The particular interest lies within the response by developing countries to the devastating climate events like El Niño and La Niña. This encompasses a broad spectrum of natural and social sciences.

Water Crises

Water comprises the most basic and critical component of all aspects of human life and is an indispensable component of the global life support system. The hydrological cycle is characterized by extremes causing floods or droughts. The widespread scarcity, gradual destruction and aggravated pollution of water resources have led to a range of water crises across the globe. The complex nature of problems and issues requires an integrated planning and management approach. It is also important to recognize the multi-sector utilization of water resources for water supply and sanitation, agriculture, industry, urban development, hydropower generation, fisheries, transportation, recreation, low and flat lands management and other activities.

Industrial development and population growth along coastal areas has increased the risk of pollution of coastal environmental resources. Pollutants from land-based sources reaching the coastal areas via water influx area major factor in deteriorating coastal environments. ESD plays a key role in monitoring these pollutants in the Asia-Pacific coastal regions. These activities are linked to capacity building as well as development of guidelines for consistent coastal management programs in the region.

The competition over transboundary water resources has been a major reason for competition and conflict amongst countries sharing international water bodies. Particularly, with increasing populations and decreasing freshwater resources, the potential for transboundary problems is on the rise. The ESD initiative comprises studies to investigate the relevant issues and initiate a dialogue between the concerned stakeholders.

Sustainable Urban and Industrial Development

The governments and policy-makers in developing countries are under increasing pressure to adopt rapid industrial development processes to meet the immediate demands of their teeming populations. But a lack of environmental foresight have often linked economic productivity to an energy intensive and ecologically destructive growth. Another consequence of rapid population rise has been an unplanned growth of urban areas. Our research activities focus on broader implications of human lifestyles and consumption patterns on trade and environment. Specifically, the focus is on the national scale to explore the use of life cycle assessments (LCA) in the new environment and trade friendly eco-labeling schemes, both for developing and developed countries.

For effective utilization of earth's limited resources, the reduction of potentially adverse emissions (gas and liquid effluent, solid and hazardous wastes, etc.) to zero is promoted under ESD's Zero Emissions Forum. This is sought as an effective means to uncouple the links between economic growth/material consumption and ever increasing resource utilization, waste generation and environmental damage.

Sustainable Human Development

ESD's research work on sustainable human development focuses in two areas. First, on globalization – it looks for strategies to strengthen developing countries' participation in the global economy, in ways that bring widespread and sustainable benefits to their peoples. Second, on governance – empirical comparisons of key aspects of governance performance across developing countries are an essential element. Within the context of globalization, ESD's research work looks for strategies to strengthen developing countries' participation in the global economy - and in ways that bring widespread and sustainable benefits to their peoples. Continuing our work on economic policy and institutional foundations in Asia and Africa, we are now evaluating the critical role of entrepreneurship for expanding and upgrading linkages with the global economy.

Though the quality of governance is directly linked to a country's development performance, our work emphasizes creation and analysis of databases containing key aspects of governance performance

across developing countries. The work also highlights policy issues and specific country information of relevance to governments and international organizations.

A Long-Term Outlook

An outlook and overview of activities that can be undertaken in the near future has been established as part of the Strategic Plan. The main underlying assumption is that the new millennium may bring with it new challenges and problems. The ESD programme should be pro-active in identifying these challenges and problems.

Several areas that are recognized as having the potential to become or continue being pressing global issues. These include sustainability and management of natural resources, availability of freshwater for drinking, urban and industrial purposes, integrated environmental policy making, human lifestyles, consumption trends and technological development, and environmental refugees and security. Growth within the ESD programme is quite essential to keep up with the ever-expanding range of issues that falls under its purview. Such growth should focus on development of human and financial resources.

3. Status of Implementation of Project Activities

Natural Resource Management

People, Land Management and Environmental Change (PLEC)

PLEC is part of the Global Environment Facility (GEF) work programme during 1998-2002 with UNU as the Executing Agency and the United Nations Environment Programme (UNEP) as the Implementing Agency. Implementation of the 4-year phase of the project which formally started under the GEF funding on 1 March 1998, is continuing on schedule in 1999 through a network of locally based research Clusters that have been established in West Africa (Ghana, and Guinea), East Africa (Kenya, Tanzania, and Uganda), Asia-Pacific (China, Thailand, and Papua New Guinea), tropical America (Brazil, Peru, Mexico and Jamaica).

A significant number of meetings and activities were organized within this project. These are listed here in chronological order.

- First Meeting of PLEC Biodiversity Advisory Group (BAG) – Yunnan Province, China; 21-28 January 1999
- Annual Meeting of UNU/PLEC China Cluster – Yunnan Province, China; 29-30 January 1999
- UNU/PLEC Public Forum – UNU Headquarters, Tokyo, Japan; 5 February 1999.
- Technical Workshop by PLEC-Uganda – Makerere University, Kampala, Uganda; 20 March 1999
- Annual Meeting of UNU/PLEC Papua New Guinea Cluster – National Research Institute, Port Moresby, Papua New Guinea; 25-26 March 1999
- Biological Diversity workshop by PLEC-Ghana – Kumasi, Ghana; 25-27 March 1999
- Field training workshop on methodology by China Cluster – Yunnan, China; 27 March-8 April 1999
- 3rd Annual Meeting of the PLEC Management Group – Toluca, Mexico; 15-18 May 1999
- Second Meeting of PLEC Biodiversity Advisory Group (BAG) – University of New Hampshire, USA; 20-24 May 1999
- Papua New Guinea Cluster Planning Meeting – Australia National University, Canberra; 9 June 1999
- 4th PLEC West Africa Cluster Regional Workshop – Pita, Guinea; 6-8 September 1999
- Workshop of Tanzania Sub-Cluster – Arusha, Tanzania; 1-2 November 1999



Farmers on a PLEC site sharing experiences

In a special issue of [PLEC News and Views](#) (April 1999), the work to harmonise methodologies within the PLEC network and to develop methodologies for biodiversity conservation in agricultural lands was highlighted. A large number of field-based activities related to baseline information finding, demonstration and capacity building continued at the PLEC demonstration sites. The current number of operational demonstration sites is 25 – with 11 more under development. The PLEC network has expanded to include about 250 professionals, including scientists, researchers and students, the majority of whom are in developing countries, plus several hundred participating farmers. Under PLEC, these participants will assemble agrodiversity and biodiversity databases, and complete substantive reports in the areas of biodiversity, agrodiversity and management regimes at the demonstration sites.

Land Degradation in Priority Areas – Managing Desertification and Mountain Ecosystems

This programme focuses on land degradation issues – along with concerns for biodiversity conservation and water resource management. Geographically, both deserts and mountain ecosystems are targeted under this project.



Participants of the UNU Workshop

The series of workshops on desertification continued this year with an international workshop on [Water Resources in Arid Lands](#) – held in Medenine, Tunisia; 18-22 October. As an outcome of the workshop, it was agreed that an international collaborative research and capacity building programme should be developed under

UNU's leadership. This programme will focus on water management and biodiversity conservation issues within the broader umbrella theme of land degradation. The need for such a programme was highlighted in the various technical sessions and the panel discussion during the workshop. To fully develop the programme proposal and seek financial resources for its implementation, a Steering Committee comprising UNU (Chair), Tunisia (Secretary), ICARDA, Iran, China and Niger was established.



Activities during the Workshop in Tunisia

Water Crises

Environmental Monitoring and Governance in Coastal Hydrosphere

A major international symposium – [Environmental Issues Related to EDC Pollution in East Asia](#) – was held in Tokyo (9-10 February) to discuss the impacts of land-based pollutants on coastal ecosystems – with a particular focus on endocrine disruptor compounds. This symposium also marked the successful completion of the three-year (1996-99) UNU project: Environmental Monitoring and Governance. The feedback from the symposium was used to design a new three-year programme (1999-2002).



UNU International Symposium 1999

In May 1999, this new programme was launched with a focus on issues pertinent to protection, preservation and sustainable development of the coastal hydrosphere in the Asia Pacific region. The project involves the well-established UNU network of the nine research laboratories (China, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Thailand, and Vietnam). UNU collaborates with universities, research institutions, local governments and private companies to implement this project. Our partners include UNESCO, International Society for Mangroves Ecosystems (ISME), Iwate Prefectural Government, Japan, and the Ocean Research Institute of the University of Tokyo.

A major component of the project is focused on monitoring endocrine disrupting compounds in the Coastal Hydrosphere (both seawater and freshwater) and database development. This will then lead to development of guidelines for coastal management with a focus on governing land-based sources of pollution. Another component of the project focuses on sharing experiences and research results in preservation and sustainable management of mangroves and to promote scientific cooperation around mangroves in the Asia-Pacific region.



Renewing a friendship with Shimadzu Corp.

Governance of Transboundary Water Resources

The project focuses on identifying strategies for mutually agreeable options for management of transboundary water resources in the countries included in the Ganges-Brahmaputra-Meghna, Salween and Mekong river basins.

Three major meetings under this initiative were held in the year 1999:

- The first meeting held in Dhaka, Bangladesh (19-20 February) involved high-level officials from India, Nepal and Bangladesh. This meeting resulted in a major follow-up research programme in all three countries which is being funded by the Netherlands government at the level of approximately US\$ 2 million.

- The second meeting in Kunming, China (25-30 June) was critical in bringing together researchers working on the Mekong and Salween river basins. Linkages between on-going activities were established.
- The third meeting in Chiang Mai, Thailand (12-17 September) brought together representatives from China, Thailand and Myanmar. The meeting was successful in establishing a long-term vision for the Salween river basin and identifying future activities to improve the transboundary water management.

The research and fact-finding programmes in India, Nepal and Bangladesh will conclude next year and the results will be disseminated to key stakeholders. A follow-up meeting to the Salween river workshop will be held in Bangkok, Thailand under the auspices of UN ESCAP to chart out a proposal for future action.

Investigating Remedies to the Arsenic Contamination in Water

Bangladesh and West Bengal (India) are suffering from an environmental disaster in which millions of people are drinking groundwater with arsenic concentrations far above acceptable levels. Thousands of people have already been diagnosed with poisoning symptoms, even though much of the at-risk population has not yet been assessed for arsenic-related health problems. In this context, UNU (ESD and UNU/INWEH working hand in hand) has established a collaboration with the Bangladesh University of Engineering and Technology (BUET) in development of economical technologies/methods for treating arsenic contamination in pumped water considering local conditions in Bangladesh. An appropriate treatment technology will be field tested and approved for use by the affected population. It is anticipated that this technology can be made available on a large scale in collaboration with international funding agencies.



Global Environmental Governance

Inter-Linkages between Multilateral Environment Regimes

To protect and preserve the complex, inter-related global environment requires a holistic approach that better integrates environmental problem solving at both the national, and the international level. The recognition of a need to develop natural synergies and provide better policy coordination is gradually making its way into the institutional decision-making process. In effort to assist in the development of a synergistic and coordinated approach to environmental policy making that takes account of the existing inter-linkages between environmental issues, the UNU and its partners convened an [International Conference on Synergies and Coordination](#) from 14 to 18 July 1999. The objectives were to create awareness at the public, governmental and inter-governmental level of the importance of synergies and coordination and survey existing initiatives on synergies and coordination between MEAs. It is anticipated that this would foster discussion and interaction among inter-national institutions, scholars, and other relevant interest-holders who can cooperate to identify and examine opportunities for synergy and coordination.



The Interlinkages Conference – A panel discussion

As an input to this

conference, the UNU conducted research on the linkages between the United Nations Framework Convention on Climate Change's Kyoto Protocol and other multilateral regimes. This study focused on the possible conflicts that will arise from the Kyoto Protocol and regimes such as the WTO, the proposed multilateral agreement on investment, the private sector and other environmental agreements. The policy report also presents policies and options based on the linkages found. These reports were then widely disseminated during Climate Change negotiations through special workshops, distribution, and other formal presentations.



A round of informal discussions at the Interlinkages Conference

Reducing the Societal Impacts of Extreme Climate Events Through Early Warning and Preparedness

The 1997-98 El Niño event has received extensive attention from the research community and governmental institutions alike. For some countries, this was the first event that clearly shows the potential vulnerability of their society to the impacts of extreme climate events. This project, therefore, focuses on building the societal capacity in developing countries to better deal with environmental emergencies arising from such extreme climate events.

The project comprises two components:

- Evaluating and assessing the preparedness at institutional and governmental level to environmental emergencies, with particular focus on the response to the 1997-98 El Niño event; and
- Developing a training programme on Climate Affairs with the focus on capacity building in educational institutions to better understand and predict climate phenomena, including global climate change.

This study is a partnership among UN and international agencies, including UNU, UNEP, NCAR's Environmental and Societal Impacts Group, the World Meteorological Organization (WMO), and the IDNDR secretariat. Participating countries are shown on the map.

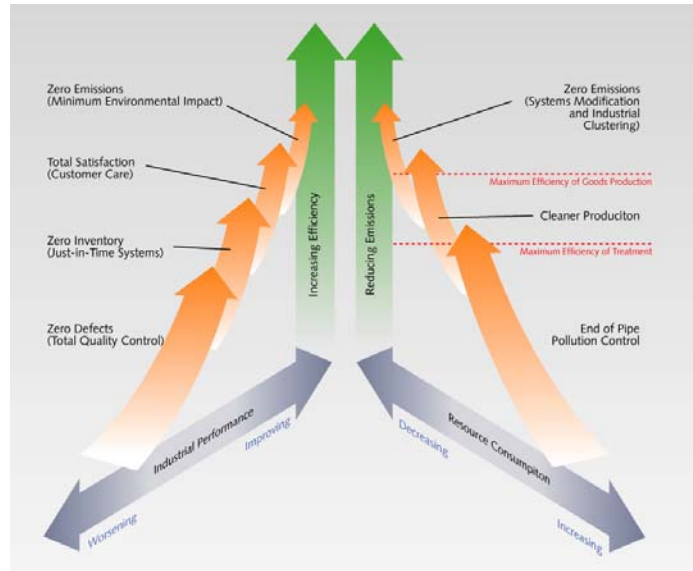


A map showing the countries participating in the project

Sustainable Urban & Industrial Development

Zero Emissions Forum

UNU has adopted a facilitating role in fostering Zero Emissions related activities through the UNU/Zero Emissions Forum (ZEF). This Forum brings together representatives from business, government and the scientific community in pursuit of three objectives: research, capacity building, and networking. ZEF promotes international multidisciplinary research efforts to analyze trends in society and technology using a range of methodologies (including input-output and materials balance flows, etc.). Working closely with leading universities, ZEF is promoting the development of multi-disciplinary centres of excellence in Zero Emissions. ZEF collaborates with development institutions, funding agencies, governments, businesses and communities to stimulate regional and local Zero Emissions initiatives across industrial and social sectors worldwide.



A major international conference [Zero Emissions in Industrialized Societies](#) was held at UNU (8-9 November) and Toyohashi (10 November) under the ZEF umbrella. This conference was attended by world's leading institutions working on sustainability issues, such as the Natural Step, Factor X, and Industrial Ecology. It is anticipated that ZEF – through such meetings and related dissemination activities – will play a key role in advocating the incorporation of Zero Emission goals in government policy-making and programmes in collaboration with NGOs and research institutes.

Natural Disaster Risk Management: The Geography of Urban Vulnerability

The project is designed for the purpose of contributing directly the follow-up activities of the IDNDR. A major research effort is a study on the Geography of Urban Vulnerability concerned with the spatial and social dimensions of vulnerability to natural disasters in an urban setting. It looks into the social and economic determinants of urban vulnerability and how they affect responses and outcomes of natural disasters, such as earthquakes. The initial phase of the original project undertaken from 1996 to 1999, developed the analytical framework and applied this to six case study cities, namely; Manila, Tokyo, Los Angeles, Mumbai, Mexico City, and Johannesburg. The expected outputs include a series of discussion papers, journal articles, a handbook, and a CD-ROM.

The Workshop on [Seismic Risk Management for Asia Pacific Region](#) was held in Bangkok, Thailand from 18 to 20 January 1999. The objective of the Workshop was to evaluate the effectiveness and impact of IDNDR programmes towards earthquake disaster mitigation within the countries of the Asia Pacific Region. Also, a training programme (11-14 October, 1999) for local government officials was organized in Tijuana, Mexico, in cooperation with the UN IDNDR. From February to June 1999, a scoping study on “Disaster Reduction Technology” was undertaken, together with the International Center for Disaster Mitigation Engineering (INCEDE), as an input into the [IDNDR Programme Forum](#) that was held in Geneva from 5 to 9 July 1999. The Forum, as well as the coping study, was used to determine the direction of the secretariat of disaster reduction after the completion of this Decade.

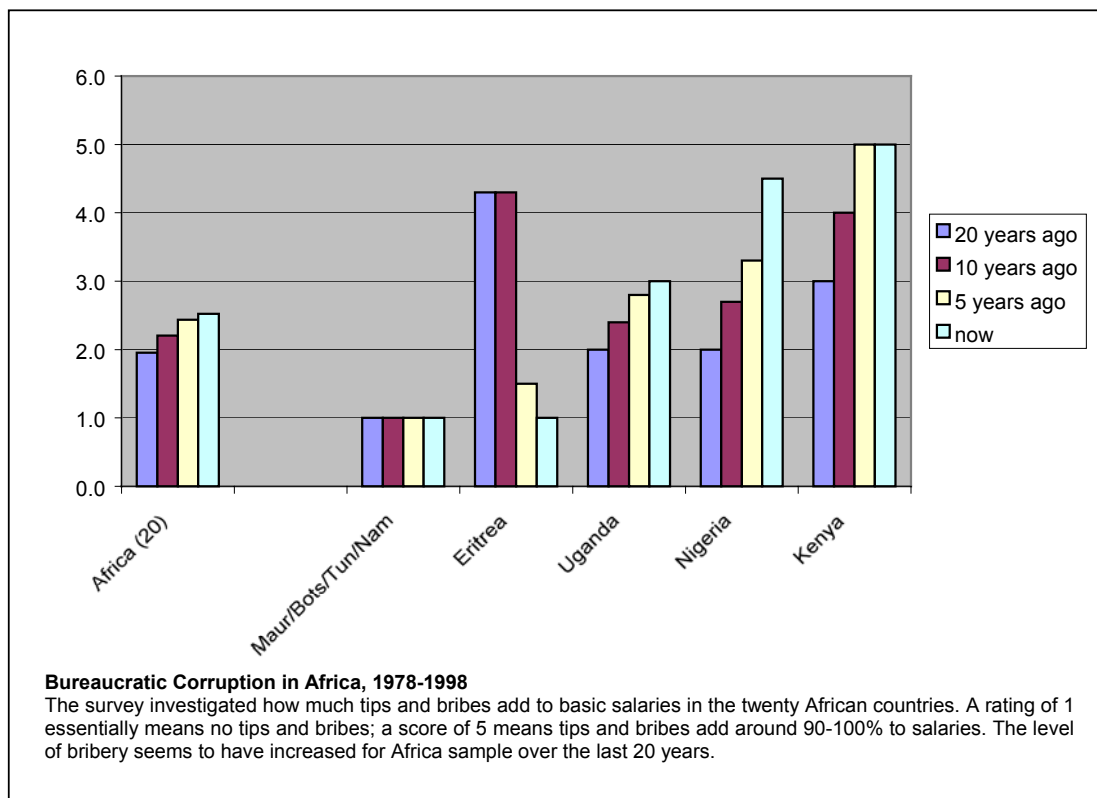
Sustainable Human Development

Bureaucratic Structure and Performance in Africa: New Evidence from Africa

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

First, the new data has enabled the construction of a significantly larger bureaucracy dataset (now comprising 50 countries globally) for statistical analysis. Four structural issues emerged as significant in the regression analysis and warrant further investigation: (i) bureaucracy salaries as a proportion of private sector levels, (ii) the influence core economic agencies have in formulating economic policies, (iii) the depth of political appointments, and (iv) the status of a career in the bureaucracy.

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



Global Environment Information Centre (GEIC)

The Global Environment Information Centre is a joint initiative of the UNU and the Environment Agency of Japan. GEIC is concerned with promoting the nexus between information development and environment. It works to find ways in which the internet may be useful to people in contemplating environmental issues. Being based in Japan, GEIC plays a role of bringing information on Japan and environment to the world, and vice-versa. As a centre owned by the UNU and Environment Agency of Japan, it maintains original data sets in its database section.

A series of UNU/UNITAR Training Workshops were jointly organized by GEIC and UNU/IAS in Geneva (March 1999) and New York (March and October 1999). The first set of training workshops were focused on the “[Trade and the Environment](#).” Approximately 45 representatives from various UN organizations and diplomats and representatives from governments attended the workshops. A follow-up UNU/UNITAR Training Workshop was also organized at the UN Headquarters New York. The second set training of workshop was focused on the “[Climate Change and COP5](#),” taking advantage of the Fifth Conference of Parties of the UN Framework Convention of Climate Change (COP5), which was held in Bonn, Germany. Approximately 30 representatives from various UN organizations and diplomats and representatives from governments attended the second workshop.



Lectures at GEIC

Inter-University Environment Forum (IeF) launched its activity on 5 June 1998, the World Environment Day, to raise environmental awareness among the students of the Japanese universities, mainly by organizing seminars on different environmental topics that are of interest to students. During 1999, two IeF seminars were held: (a) “[The Effects of War on the Environment](#),” by Prof. Benjamin Wisner, of University of California, Long Beach, USA, and (b) “[International Volunteering: From My Own Experience Volunteering in Rwandese Refugee Camps](#)” by Ms. Midori Paxton, writer and part-time Lecturer at Chuo University Law Faculty, Japan.

The World Environment Day is celebrated each year on 5 June in more than 100 countries around the world to focus attention on environmental awareness and protection. UNU celebrated the World Environment Day – with major input from GEIC – by organizing a series of activities under the banner of “[World Environment Day '99 – Global Echo](#)” (2-13 June 1999). The events included the UNU Open House to introduce the UNU's efforts in addressing vital global environmental issues, and to provide information on the UNU, other UN agencies in Japan. Other events include a seminar series, and environmental leadership training for students. Also, various NGOs and NPOs organized performances and events on environmental topics in this event. More than 10,000 people visited UNU during the World Environment Day (5 June, 1999).



World Environment Day '99

4. Publications and Dissemination

- Adeel, Z. 1999. *Facing the Challenge of Water-Resource Sustainability in Arid Lands – The Role of Network Development and South-South Collaboration*, International Workshop: “Water Management in Arid Zones,” The Institut des Régions Arides, Médenine, Tunisia, 18-22 October, 1999.
- Adeel, Z. 1999. *Sustainable Management of Deserts – Environmental Concerns in Combating Desertification*, Sixth International Conference on the Development of Dry Lands “Desert Development: Challenges Beyond the Year 2000,” ICARDA, Cairo, Egypt, 22-27 August, 1999.
- Biswas, A.K. , N.V. Cordeiro, B.P.F. Braga, and C. Tortajada (Eds.), 1999. *Management of Latin American River Basins: Amazon, Plata, and São Francisco*, UNU Press, Tokyo, Japan.
- Brookfield, H., 1999. *The Meaning of Agrodiversity*, the International Seminar on Campesino Agrodiversity, Toluca, Mexico, 12-14 May 1999.
- Chambers, W.B., S. Dodds, and J. Velasquez, 1999. *Global Climate Governance, Scenarios and Options on the Inter-Linkages between the Kyoto Protocol and other Multilateral Regimes – Report Part 2*.
- Chambers, W.B., S. Dodds, L. Campbell, and J. Velasquez, 1999. *Global Climate Governance, Inter-Linkages between the Kyoto Protocol and other Multilateral Regimes – Final Report*.
- Chilumphu, C., and Rwegasira, D., 1999. *African Development in the 21st Century*, UNU Lecture Series.
- Court, J. and Weder, B., 1999. *Bureaucratic Structure and Performance in Africa: Analysis of a Cross-Country Survey*, Working Paper. http://www.unu.edu/hq/academic/Pg_area4/b-structure.html
- Court, J., Kirsten, P. and Weder, B., 1999. *Bureaucratic Structure and Performance in Africa: New Evidence from Africa*, Paper presented at the Global Development Network Annual Conference, Bonn, Germany.
- Ezcurra, E., M. Mazari-Hiriart, I. Pisanty, and A.G. Aguilar, 1999. *The Basin of Mexico: Critical Environmental Issues and Sustainability*, UNU Press, Tokyo, Japan.
- Fofana, S., 1999. *Role Of The Natural Fallow In The Biodiversity Conservation And Of Production In The Fouta Djallon*, Guinea at the ORSTOM International Seminar on Fallows in Tropical Africa, Dakar, Senegal, 13 – 16 April 1999.
- Global Environmental Change: Human and Policy Dimensions*, Volume 9, Published in April, July, October and December by Elsevier Science, Ltd.
- Herath, S. (Ed.), 1999, Proceedings of the workshop: “Information Technology Tools for Natural Disaster Risk Management,” 4-6 February, 1998, Asian Institute of Technology, Bangkok, Thailand.
- Hong, J., 1999. *The Ordos Plateau of China: An Endangered Environment*, UNU Press, Tokyo, Japan.
- Huijun, G., 1999. *Establish Partnership between Researcher and Farmer: An UNU/PLEC/CHINA Approach*, the 2nd Asia-Pacific Conference on Sustainable Agriculture, Phitsanulok, Thailand, 18-20 October, 1999.
- Kaihura, F., 1999. *Assessment of Agrodiversity at Landscape Level Under Small Scale Farming Systems in Arumeru District, Tanzania*, the 10th International Soil Conservation Conference, Purdue University, USA, 23-28 May, 1999.
- Mitchell, J.K. (Ed.), 1999. *Crucibles of Hazard: Mega-cities and Disasters in Transition*, UNU Press, Tokyo, Japan.
- Modak, P. and A.K. Biswas, 1999. *Conducting Environmental Impact Assessment for Developing Countries*, UNU Press, Tokyo, Japan.
- Mountain Research and Development*, Volume 19, Published by the University of California Press for the United Nations University and the International Mountain Society.
- Ojany, F.F. (Ed.), 1999. *African Mountains and Highlands: Planning for Sustainable Use of Mountain Resources*, UNU, Tokyo, Japan.
- “PLEC News and Views” Volume Nos. 12, 13, and 14.
- Srinivas, H. 1999. “Managing Information: Urban Environments and the Internet,” in Miller and de Roo (Eds.), *Integrating City Planning and Environmental Improvement - Practical Strategies for Sustainable Urban Development*. Hants, UK: Ashgate Publishing Ltd. pp.353-369
- Srinivas, H, 1999. “Urban Environmental Management: A Partnership Continuum” in Inoguchi et al. (Eds.) *Cities and the Environment: New Approaches for Eco-Societies*. UNU Press, Tokyo, Japan.
- Srinivas, H., and B.I. Tjandradewi, 1999. “Prioritizing Cultural Heritage in the Asia-Pacific Region: Role of City Governments” *The Asia-Urbs Journal*, November 1999.
- Srinivas, H., 1999. “The Future of Indian Cities: G.E.T. URBAN” Paper presentation at the Forum on City Planning organized by the City of Fukuoka and the Asia-Pacific Center. Fukuoka, Japan, 24-28 August 1999.
- Srinivas, H., 1999. “Rethinking Port Areas: Japan’s Minato Mirai 21” Paper presented at the 35th International Planning Congress on Industrial Regions: Regional strategies and local action towards sustainability”, Gelsenkirchen, Germany, 17 - 20 September 1999.
- Srinivas, H. and M. Yashiro, “Cities, Environmental Management Systems and ISO 14001: A View from Japan” Paper prepared for the International Symposium on Sustainable City Development organized by the United Nations Development Programme (UNDP), Seoul, South Korea - 6 and 7 October 1999.
- Srinivas, H., 1999. “The Role of Local Governments in Fostering Business Partnerships for Environmental Sustainability” Background paper prepared for the CITYNET/KMC conference on Fostering Business Partnerships, Katmandu City, Nepal, 3 and 4 November 1999.

- Stocking, M., 1999. *Agrodiversity - A Positive Means Of Addressing Land Degradation And Rural Livelihoods*, 6th Meeting of International Geographical Union Commission on Land Degradation and Desertification, Perth, University of Western Australia, 20-28 September 1999.
- Suzuki, M., 1999. Achieving an Eco-Industrial Society through Zero Emissions, International Symposium on Sustainable Industrial Societies, 8-9 November, 1999, UNU, Tokyo.
- Suzuki, M., 1999. *Production/consumption/social system aiming at zero emissions*, Annual meeting of Japan Chemical Society, Yokohama, 30 March, 1999.
- Suzuki, M., 1999. *Social Systems for Zero Emissions*, Sogo Kenkyuu Siryokan Symposium, Tokyo Institute of Technology, 5 March, 1999 (in Japanese).
- Suzuki, M. 1999. *Formulation of Material Cycles for Zero Emissions*, Kagaku Kogaku Journal of Society of Chemical Engineers, Japan), February, 1999 (in Japanese).
- Uitto, J.I. and Z. Adeel, 1999. Development of International Network on Marine Environment Research: A key to Sustainability of the Seas in the 21st Century, in *Man and the Ocean*, N. Miyazaki and Z. Adeel (Eds.), UNU Press, Tokyo, Japan.
- UNU Desertification Series No. 1, 1999. *New Technologies to Combat Desertification*, Proceedings of the International Symposium held in Tehran, Iran, 12-15 October, 1998.
- Usui, M. and G. Paoletto, 1999. *Kangkyo Japan 1999*, Diamond Publisher, Tokyo, Japan (in Japanese).
- Velasquez, J., J.I. Uitto, B. Wisner, and S. Takahashi, 1999. *A new Approach to Disaster Mitigation and Planning in Megacities: The Pivotal Role of Social Vulnerability in Disaster Risk Management*. In *Cities and the Environment - New Approaches to Eco-Societies*, UNU Press, Tokyo, Japan.
- Weder, B., 1999. *Model, Myth or Miracle? Reassessing the Role of Government in the East Asian Experience*, Tokyo: UNU Press.