United Nations University
"Advancing knowledge for human security and development"

25th Anniversary of UNU/GTP Programme

Setting the course: the UNU Geothermal Training Programme

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This year, the United Nations University Geothermal Training Programme (UNU/GTP) celebrates its 25th anniversary. An excellent occasion to congratulate all who have been involved in this successful programme; some of them from the beginning.

In 2000, I myself attended part of the World Geothermal Congress, in Morioka, Japan, and was happy to see that the UNU/GTP is not only just a programme with a long history. Indeed, it has turned out a large number of experts who now, each of them, are serving their country in the crucial energy sector. In trying to contribute to "*a better life, and a safer world for all people, including future generations*", people around the world have to share their knowledge about the optimal use of available natural resources. Iceland, and the Geothermal and Fisheries Training Programmes (UNU/GTP and UNU/FTP, respectively), have taken the lead in the world in such knowledge sharing which aims to benefit large parts of the developing world and countries in transition. UNU is proud of both these programmes, and is looking for other important natural resources to start new activities that can help improve the living conditions in large parts of our shrinking world.

The United Nations has the responsibility to preserve international peace and promote human development. The UN Charter codifies best-practice state behaviour. The United Nations University has the mandate to link the normally isolated worlds of scholarship, policy-making and practical implementation. It is the embodiment of the UN ideal with regard to the international community of scholars. Lying at the interface of ideas, international organizations, international public policy, and implementation, it seeks to harness knowledge for the promotion of human security and human development, and put tomorrow's issues on today's agenda; theory into practice. It also tries to strengthen the capabilities of people to improve their living conditions in innovative and practical ways, in crucial areas such as water, energy, food security, environmental degradation and biodiversity. The method of the UNU – policy-oriented research, reflection and capacity-building, especially in developing countries, through a global network of high-level practitioners, scholars, academic institutions and think tanks – distinguishes us from the other UN organizations as well as from other universities.

In his report "*Strengthening the United Nations: An Agenda for Further Change*" (UN September 2002, Document A/57/387, p. 6, para. 2), Secretary-General Annan stressed, among other points, that:

> … *"This new age of interdependence and integration offers many opportunities to all the peoples of the world, but it also poses many dangers. The challenge ahead is to strengthen our capability for collective action and thus forge a common destiny in a time of accelerating global change."* …

Much scientific knowledge that already exists in pockets of advanced societies is yet to be diffused to the rest of the world. In other respects, the existing knowledge base is inadequate to the magnitude of the tasks confronting us. Rapid development and diffusion of science and technology are the driving forces of modern development and global economic integration. But the harnessing of scientific knowledge and technological enterprise for the betterment of society has been extremely uneven across the world. Those of us who take their desktop, portable, palm/handheld, and mobile for granted, tend to forget that most people in the world have not even used a telephone once in their lives.

Science and technology can be used to increase the volume or the nutritional value of food, as UNU aims to do through its Institute for Natural Resources in Africa (UNU/INRA in Accra, Ghana); its Food and Nutrition Network coordinated from Cornell University; and its Fisheries Training Programme in Iceland (UNU/FTP). Science and technology can also help to manage available freshwater resources better – to monitor pollution, and to treat water to make it safe for drinking – on which the activities of UNU's Network on Water, Environment and Health (UNU/INWEH in Hamilton, Canada), as well as some of the projects of the Environment and Sustainable Development Programme in Tokyo (UNU/ESD) are focusing. Science and technology can also contribute applications in industrial engineering, and to abatement of polluting after effects as is being done in the framework of UNU's Zero Emissions Forum (UNU/ZEF), its Eco-Restructuring Project, and its Coastal Hydrosphere Project supported by Shimadzu Corporation. This last project is particularly interesting as it helps ten countries in Asia and the Pacific to address pollution problems in their coastal waters which are caused by agriculture, as fertilizers and insecticides are transported by ground and surface water to the sea. Science and technology also plays an important role in UNU's activities with regard to biodiversity and the Millennium Ecosystem Assessment, which are central to the work of the Institute of Advanced Studies (UNU/IAS in Tokyo), as well as the work of the Programme for Biotechnology in Latin America and the Caribbean (UNU/BIOLAC in Caracas). UNU is particularly interested to further develop such activities in areas where specific countries have a great expertise which can be shared with developing countries for both individual and institutional capacity development.

It is now almost commonplace to stress the importance of learning and the accumulation of knowledge as critical factors in sustainable development. What is less widely recognized is the extent to which knowledge-intensity of production has extended beyond high technology sectors, such as information and biotechnology, to reshape a broad spectrum of traditional industries. Competition in all sectors has become more innovation-based. Innovation-based competition, as it diffuses around the globe through the process of market liberalization, challenges all enterprises to learn and to innovate. Competitiveness in these industries depends upon technological upgrading and capacity-building in products, processes, organization and management. For developing countries, upgrading in traditional industries provides an important area for accessing the benefits of new technologies. Both Iceland-based programmes on geothermal training and fisheries training fit perfectly in this philosophy and strategy. It

is UNU's Institute for New Technologies (UNU/INTECH in Maastricht) that focuses its work on new thinking and practical implementation strategies in the field of knowledge transfer to help develop the economies of developing countries. UNU's World Institute for Development Economics Research (UNU/WIDER in Helsinki), in relation to this, focuses its work on innovative approaches in development strategies in order to more efficiently and effectively alleviate poverty. The International Institute for Software Technology (UNU/IIST in Macao) helps develop software for development. Technology transfer is seen as a crucial contribution to the solution. However, it is a complex process involving investment in education and the building of technological capabilities in recipient countries to apply, adapt and assimilate technology in the productive sectors. The transfer and absorption of environmentally sound technologies is increasingly being recognized as critical to promoting sustainable development in developing countries. Yet "*technology transfer*" captures the reality of the largely one-way flow of developments in technology from the industrial to the developing countries. Even when technology transfer has been successfully completed, the developing countries have essentially been the consumers of technology, with industrial countries being the producers of new technology.

What makes the example set by the Geothermal Programme (UNU/GTP) so interesting, however, is that through its strategy of knowledge transfer, a worldwide community has been developed, a partnership, which allows for extensive exchange of information between such a large range of countries. In this way, working together has brought the ideal of learning from each other by working together, brought near to its realization.

Indeed, the Geothermal Training Programme (UNU/GTP) has been *setting the course* in the area of capacity development and knowledge transfer: within and beyond UNU. It was established in Iceland in 1978, not long after the UNU itself started its academic project activities in Tokyo in 1975. The goal of the Government of Iceland to contribute to the UNU in an area where Iceland commands particular experience and expertise matched perfectly with UNU's aim to assist developing countries in their efforts to enhance their capacities for development and governance. The positive impact that the Geothermal Training Programme has had over the past 25 years on the level of geothermal energy utilization in so many developing countries shows that this partnership has been most fruitful. UNU/GTP has pioneered many specific approaches in its capacity development efforts of which I will only single out three:

- An unique combination of theory and practice;
- The conscientious process of selection of participants;
- The combination of individual and institutional capacity development.

In these, and many other aspects, the UNU/GTP has set the course in capacity development within UNU. All those, who have been involved and those who will be in the future, can be congratulated with the results achieved. It is an example many experts engaged in capacity development outside UNU can benefit from.

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