## World Population Day Message from UNFPA's Executive Director

World Population Day offers a unique opportunity to remind ourselves that population is a global issue. The growth and movement of population affect first and foremost the nations of Africa, Asia, and Latin America, where nearly all the continuing population growth takes place. But population issues also have a major impact on the world economy, migration patterns, and above all the environment.

A growing population means a greater and greater need for land, food, and work. When it is out of balance with resources, it may place an unduly heavy burden on the ability of countries to meet the need for schools, health-care, housing, and other services.

Governments in 'developing' countries increasingly believe that rapid population growth and its uneven distribution hold back development efforts. Population issues affect the life of every one of us, whatever country we live in, and whatever its rate of population growth or level of development.

Slower, more balanced, population growth is in the interest of us all. It is also within the power of all of us to decide on. National decisions can help to inform personal decisions in this regard — the decision for greater investment in education (especially of women and girls), in health-care, in employment, and in family planning.

World Population Day reminds all of us that the future depends on a balance between numbers on one hand and resources on the other.

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## On the Use and Misuse of the Term 'Ecosystem'

'Ecosystem', as proposed originally by A.G. Tansley (1935) and subsequently refined by N.B. Marshall (1986) regarding marine aspects, and by N. Polunin (1986) and others for global application, is a valuable scientific term that must have a definite meaning for its ecologist (as opposed to ecostasist* etc.) users. It is *not* a mere smart-sounding catchword for any kind of system or quasi-system that, involving both living biota and inert components, may seem desirable to a would-be user needing a term that sounds learned or technical, and certainly should not be so employed.

Yet some such or other term is apt to be needed to imply the holistic but less-integrated nature of particular and usually major entities that are held together in some way by an ecological factor or consideration while embracing more or less numerous ecosystems. For such an agglomerate we propose the term 'ecocomplex', examples being an 'island ecocomplex', a 'lake ecocomplex', a 'river ecocomplex', or even 'the global ecocomplex'.† We have heard all such entities referred to as 'ecosystems', and have seen these and some others in print — hence this plea for clarification.

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* For explanation of this term *see* the note by R.A. Lewin & N. Polunin, entitled 'Ecology and "Ecostasis"', published in our latest issue (*Environmental Conservation*, Vol. 17, No. 2, p. 177, Summer 1990). — Ed.

† We could also speak of, for example, a 'tropical rain-forest ecocomplex', though such entities of relatively even dominance by a single life-form seem better referred to as ecobiomes — but surely not 'ecosystems', or 'biomes', which latter term applies only to the living parts of the system that necessarily involves other components.

## The M.S. Swaminathan Research Foundation

The M.S. Swaminathan Research Foundation, established in July 1988, is a non-profit Trust recognized by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India. The Foundation aims to respond to the challenges inherent in the changing nature of national food security. Malnutrition and under-nutrition are now more the result of inadequate purchasing power than of scarcity of food in the market. Economic and ecological access to food will be the major food-security challenges of the '90s and beyond in India. The following issues therefore deserve much-increased scientific attention:

- Promotion of sustainable and equitable agricultural and rural development,
- Development of ecologically sound and economically viable 'green technologies' by integrating traditional skills and frontier science, and
- Generation of increased and improved opportunities for skilled employment — particularly for rural women and youth.

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*Activities of the Foundation*

To turn the above vision into action: first, the Foundation is setting up a Centre for Research on Sustainable Agricultural and Rural Development — at the Institutional Complex, Taramani, Madras, on land kindly made available by the Government of Tamil Nadu. This Centre will focus attention on:

1. Programmes for conservation, evaluation, and utilization, of India's biological wealth, with an initial emphasis on coastal ecosystems;
2. Development of methodology to measure and monitor sustainability in the improvement of biological productivity;
3. Technology development and information dissemination to enhance opportunities for skilled employment; and
4. Anticipatory research on problems relating to changes in sea-levels, precipitation, and temperature.

Second, the Foundation will organize workshops on issues relating to science and society, involving both social scientists and those engaged in the leading edge of technology development and dissemination, instructional programmes for trainers, and demonstrations and operational research involving local communities of farmers and fishermen.

Third, the Foundation will set up an Information and Communications Centre for developing data bases, computer-simulation models, and computer-aided instructional and extension techniques.

*The Centre for Research on Sustainable Agricultural and Rural Development*

Of this the main objectives are:

(a) to integrate equity and sustainability in technology development and dissemination;

(b) to harmonize the demands of intra-generational and inter-generational equity, or equity of present and future; and

(c) to promote pro-active research and action in relation to equity and sustainability.

The Centre will take up the following four research projects during 1989–94:

Project I — Designing and Implementing a Coastal Systems Research (CSR) programme for promoting the Sustainable Management of Coastal Ecosystems.

Project II — Increasing Opportunities for Skilled Employment in Rice-farming Areas.

Project III — Organization of a Genetic Resources Centre for Adaptation to Climatic Changes.

Project IV — Research on Organizational and Delivery Systems for Enhancing the Efficiency of Small-farm Management.

*Tasks Ahead*

The Research Foundation and its associated Centre for Research on Sustainable Agricultural and Rural Development will establish the minimum essential laboratory and computational facilities at Madras. The Genetic Resources Centre will be established with the help of the Forest Department of the Government of Tamil Nadu, and the Research Foundation will work in close collaboration with other existing institutions and universities that are interested in similar areas of research, training, and demonstration.

For further information about this Research Foundation and its objectives, please contact the undersigned:

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## Council of Europe Campaign to Protect Freshwater Fish and Their Biotopes*

The Centre Naturopa of the Council of Europe has just officially launched the International Campaign for the Conservation of Freshwater Fish. The Campaign will appeal for better knowledge of this marvellous natural heritage, emphasize the diversity of species, and warn against the growing danger which threatens them and alters their biotopes. In fact, fish are valuable bio-indicators of the quality of water—a vital 'element' for fishes but also for Mankind.

The Campaign has already got off to a good start in a number of European countries. Others will follow, and Naturopa Newsletters will report on activities 'round and about'. Initially, *Naturopa Newsletter* No 90, of June 1990, has a leading article by the undersigned, Chairman of the Steering Committee for the Conservation and Management of the Environment and Natural Habitats (CDPE), on the place of the Campaign in the Nature and environmental conservation activities of the Council of Europe. Following this, an ichthyologist analyses the scientific reasons for choosing this Campaign. Thereafter are considered the various events already planned in connection with the Campaign in Austria, France, Liechtenstein, Luxembourg, and Switzerland, as well as the contact addresses in these countries as follows:

**Austria:** Dr Durolf Hofer, Institute of Zoology, University of Innsbruck, Technikerstrasse 25, A 6020 Innsbruck, Austria.

**France:** Mr Hervé Lethier, Mrs M. F. Bossenie, Service Pêche et Hydrobiologie, Direction de la Protection de la Nature, 14 Boulevard du Général Leclerc, F 92524 Neuilly-sur-Seine, Cedex, France.

**Liechtenstein:** Mr Wilfried Marxer-Schädler, Liechtensteinische Gesellschaft für Umweltschutz, Heiligkreuz 52, FL 9490 Vaduz, Liechtenstein.

**Luxembourg:** Direction des Eaux et Forêts, Service de la Chasse et de la Pêche, BP 411, L 2014 Luxembourg.

* A biotope is the smallest subdivision of a habitat which is characterized by a high degree of uniformity as regards both environmental conditions and biotic inhabitants. The biotope is not to be confused with the niche which, following C. S. Elton as regards animals, we define in terms of the place of a plant or animal in its biotic environment and what it is doing there. Such features as the mobility of most taxa of fishes, involving usually several biotopes, commonly different ecosystems, and sometimes a multiplicity even of ecobiomes, makes us wonder whether some other term is not needed to describe their positional ecological status. — Ed.