



Editorial

Development Assistance from South Asia for Germany's High Tech Industries?

The German Government plans to open its restrictive migration policy for non-EU software professionals for limited appointments in order to boost its related industries. Most of the potential candidates expected to respond to this initiative will be from low income countries in South Asia, such as India. The short term effects for the countries of origin are largely negative, the long term development effects, however, depend greatly upon specific policy design and could prove to be positive.

Naturally there is a degree of apprehension, that just at a time when the software industries in these countries are about to take off, this "brain drain" may very well undermine them and widen the gap between North and South - and particularly, within those industries which have facilitated access to the gains on global markets. Theoretical research at the Center for Development Research, however, suggests that a carefully designed partially open migration policy in high income countries may create strong incentives for human resource investment in the countries responding to such initiatives and whose gains may exceed the gross losses from the "brain drain" (ZEF Discussion Papers Nos. 11 and 25 by Oded Stark). However these gains cannot be achieved on the basis of a short term strategy. In order to secure the benefits, the incentive for these countries to invest in up-scale human resource improvement must be sustainable over the long term. As with its trade policies, Germany and the EU must also carefully consider the coherence between labor market policies and development policies.


Joachim von Braun
Director at ZEF

ZEF at EXPO 2000 : A Global Dialogue

Angelika Wilcke and Detlef Virchow

On 1 June, the world exhibition EXPO 2000 will open its doors in Hanover. ZEF is involved in this event by organizing the Global Dialogue: *The Role of the Village in the 21st Century – Crops, Jobs and Livelihood*, a three-day event (15 – 17 August 2000). What is the future for rural areas of the world and their inhabitants? Is the future of the villages the mega cities? A common prejudice is that in the 21st century people of rural areas are backwards, inflexible or even hostile towards

gy and information technology, have on the rural economy? How can the sustainable use of natural resources - cautious and adapted strategies for consumption of energy, water use and land management - be encouraged? What political framework will guarantee that both the basic needs are met and cultural and institutional values are safeguarded to make rural areas more attractive? And going beyond the village as a unit, the Dialogue will consider urban-rural linkages. Thus, questions will be discussed such as what are the patterns of employment, migration, infrastructure and transport that govern the relationship between town and country.

Agenda of the Event

The Global Dialogue consists of several different components. In the "Science in Dialogue" sessions, development problems and solutions will be discussed from a scientific perspective by world-renowned scientists. The "Workshop 21" is conceptualized as roundtable discussions with participation of all the different groups involved in the development of villages and rural areas. This will present an opportunity for scholars and politicians to discuss with representatives from industry, practitioners and villagers, their theories, ideas and opinions in the light of the reality of the villagers. In the afternoon of each day, the Dialogue will be opened to the broader public.

In the first afternoon (15 August) Her Majesty the Queen of Sweden and other celebrities renowned worldwide will present their views on the opportunities and challenges of the rural areas in the 21st century



Life in rural areas - what does the future hold?
Photo: ZEF

technological innovations. The Dialogue *The Role of the Village* intends to show that, in the 21st century, such assumptions are wrong. The Dialogue brings together an international group consisting of village and city representatives, scientists, workers specialized in rural development, politicians and business leaders. The discussion will focus on four principal themes: What impact will new technologies, especially biotechnolo-

(“Global Focus”). The second afternoon (16 August) will connect people from three sites in a live TV broadcasting: villagers from the Indian state Maharashtra and citizens from the Kenyan town Nakuru will discuss with representatives from German and European villages and organizations the future challenges and opportunities of rural areas (“Talk around the World”). In the afternoon of the last day (17 August) experts such as Ernst Ulrich von Weizsäcker, Klaus Töpfer, Per Pinstrup Andersen, Monkombu Swaminathan, and Margarita Marino de Botero, to name only a few, will discuss ways how to improve rural livelihood and present their visions of how rural areas will grow into the new century (“Platform for the Future”).

Learning from Practical Solutions

Throughout the three days of the Global Dialogue, practical experiences taken from a wide range of promising projects from around the world will be presented in the “Go Basic” element. These projects, that have been initiated by development corporations or by the rural population itself, will demonstrate the true innovation taking place in rural communities, to show that villages are anything but backwards. The presentations of these projects will stimulate the dialogue, by providing the opportunity to learn from the ground, i.e. from promising local innovations, and because the same challenges have produced different solutions in different regions and within different institutional and political frameworks, showing the considerable creative potential that exists in rural areas.

To increase production without mining natural resources, the Ethiopian Agriculture Research Organization (EARO) uses biotechnology to breed high-yielding wheat and barley varieties with natural resistance to the most common fungal diseases.

In the middle of the Bilbeis desert in Egypt, however, another initiative has adopted a very different approach to solve a similar problem. This project’s holistic approach embraces social and cultural ac-

tivities besides having established a model farm based on organic farming.

In the state of Bahia, Brazil, 38 local organizations have set up an association for the maintenance and management of water supply systems to overcome the frequently inadequate water supply in rural areas. To tackle a similar difficulty in India, the “Watershed Organisation Trust” promotes a participatory management approach directed at environmental regeneration and management of small watersheds. Here the villagers, organized in self-help groups, implement most activities. The ultimate goal is to create a network of self-help groups that are constantly exchanging information.

In the ongoing discussion on the success of future innovations in rural areas, some advocate a tradition-based, village-centered process of innovations, while others stress the importance of standardized (urban-biased) education. The Barefoot College in India demonstrates how the poor

cultivation techniques and environmental protection methods.

The involvement of grassroots movements and enhancement of the overall institutional framework are essential for solving problems. This can be seen in two projects, both dealing with the urban-rural issues: A project from Senegal has the objective of improving the living conditions of the most impoverished in the large towns and cities of the country. The measures include legalizing the slums and providing basic urban supplies in an environmentally viable manner. Another example for self-help involvement by those concerned is the reconstruction of downtown Beirut with a company (SOLIDERE) of over 100,000 shareholders. Special attention is paid to environmental impacts and reconstruction of archeologically precious sites.

The Global Dialogue as a Process

The Global Dialogue has begun with a series of events and linkages to conferences to be held in the course of the years 1999 and 2000. The Global Dialogue shall continue after the World Exhibition through the establishment of a network for information sharing, further interaction in conferences on issues of rural development, publication of the results of the events and documentation of the process.

Other involvements of ZEF in the EXPO include a participation in “Shaping the Future“, an international forum on innovations, new strategies and possible solutions for the

next century. ZEF is also involved in the development of a conference on “IT for Development” organized by the Carl Duisberg Gesellschaft and UNDP.

Questions relating to and the registration for the Global Dialogue or other ZEF-EXPO activities can be addressed to ZEF’s Dialogue Office: (Phone: (49) 228 73-1728, Facsimile: (49) 228 73-1849; or E-mail: gdialogue.zef@uni-bonn.de). You can also visit the Global Dialogue Webpage for more information and a registration form (<http://www.zef.de/gdialogue/>).



Angelika Wilcke and Dr. Detlef Virchow are Project Co-ordinators for the EXPO Global Dialogue at ZEF.



In Nepal women are trained as counsellors in areas of health and family planning
Photo: DSW

have the capacity and the competence to solve their environmental and development problems without a dependency on (intellectual) imports from outside.

To face a similar challenge, a foundation in Colombia developed an educational model especially adapted to rural areas. Education and public consciousness are nurtured by providing the rural population with access to scientific teaching.

In Nepal, a project tries to break the vicious circle of poverty, high birth rate, poor health services as well as low agricultural production due to soil erosion with “modern” training for local women. The innovative concept is that the training is not restricted only to health care and birth control but training is equally provided in new

Environmental Standards and International Competitiveness

Ulrike Grote

Will the costs of environmental standards make the German agricultural sector less competitive in comparison to developing countries? A ZEF Study examines this question.

In co-operation with two research institutes in Brazil and Indonesia, ZEF investigated to what extent environmental standards for the production of vegetable oils (soya-, rapeseed- and palm oil), cereals (maize, barley and wheat), and chicken affect international competitiveness in the context of growing trade liberalization. The study was financed by the German Ministry of Agriculture (BML).

With the help of the International Farm Comparison Network (IFCN) and expert interviews, cost data and information were obtained on environmental protection for selected typical production and processing enterprises. The analysis shows that the impacts of the discussed environmental standards on production and processing costs are low. For example, environmental standards for the production of rapeseed on the typical farms and for the processing to rapeseed oil in selected oil mills caused additional costs of up to 5 %. In comparison, the corresponding figures for the surveyed soybean processing plants

in Brazil and the Indonesian palm oil mills amounted to only 0.5 – 1 %. In addition, the comparison of the production systems shows that environmental standards are very country-specific and partly lose importance and relevance under different natural conditions.

Cost effective environmental standards in plant production were identified especially in the fields of fertilizers and pesticides, as well as in technical security (TÜV). In chicken production, cost disadvantages resulting from environmental and animal protection standards were evident with respect to buildings and equipment when investigating a German farm. Different than in the case of environmental standards, other factors such as the wage level, prices for land and machines, buildings and equipment on the production and processing level have a significantly greater effect on international competitiveness.

Thus it has been determined, that in oilseed production the costs of the typical Brazilian farms amount to only 50–75 % of the costs of German farms. For the production of palm oil with yields (per hectare) eight times that of soya, the identified costs were even lower.



Dr. Ulrike Grote is Senior Research Fellow at ZEF, Department of Economics and Technological Change and is Co-ordinator of the Study.

Ethnic Conflicts

A. Wimmer, C. Schetter, U. Joras

In the post-cold war era, ethnicity and nationalism have turned out to be the most important parameters of intra-state conflict. Such conflict seems to be characterized by its protracted nature and a potential for bringing about extreme violence and atrocities against civilians. There are currently three main ways of explaining why this form of political conflict is dominating the post-cold war era:

- Journalists and political analysts in governmental and multinational institutions tend to attribute the growing political significance of ethnicity to what one may call the “defrosting effect”. With the “ice” of authoritarian rule preserved through superpower rivalry melting away, past dissensions among ethnic groups are being revived and fuelled by incompatible claims to self-determination and political sovereignty.
- Some social scientists attribute the salience of ethnicity and ethnic conflict to the manipulations of politicians who take advantage of the new political opportunities for mass mobilization that have arisen in the wake of 1989 and a

Doctoral Studies Program

Second Course Model Concluded

During four weeks in February and March 2000, the students of the International Doctoral Program for Development Studies at ZEF attended the second course module. In contrast to the interdisciplinary course in October 1999, two separate intensive courses were offered parallel by the Department of Economics and Technical Change and by the Department of Ecology and Resource Management. The courses were conducted by internal and external lecturers and concluded with written exams. Among the external lecturers were: Dr. Arjun Bedi, ISS (The Hague), Dr. Nauro Campos (CERGE-EI, Czech Republic), Prof. Michael Mühlberg (University of Göttingen), and Prof. Wim Sombroek (ISRIC, Wageningen). The objective of both courses was the enhancement of in-depth knowledge, methods and tools for their research. The course in the Department of Economics focused on quantitative and economic tools for development policy analysis. It was organized in two parts: econometrics and micro and macroeconomics. The course organized by the Department of Ecology endeavoured to find a balance between the general understanding of the complexity of ecological issues and the practical questions of the management of natural resources, including an in-depth knowledge of methods used to assess ecological research problems. Topics of the course were soils, climate and water, nitrogen and carbon cycles, vegetation, tropical ecosystems, ecology, conservation and biodiversity, GIS and remote sensing. During a one day excursion to ECT Ecotoxicology GmbH, near Frankfurt, students learned about principles and methods in ecotoxicology.

In the weeks to come, the students will leave ZEF to conduct empirical research in their home countries or at international research institutes. At present, the students are presenting their research proposals and discussing their research plans with ZEF staff and their colleagues to leave well prepared for their empirical research abroad.

Further information can be obtained via E-Mail (docp.zef@uni-bonn.de) or by visiting ZEF's homepage (<http://www.zef.de>).

rapidly globalizing moral and legal discourse that legitimizes claims to cultural and political self-determination. Constructing ethnic antagonism out of rhetoric and "skillful" (re)interpretations of history, they jeopardize a well-established tradition of thinking and acting in terms not determined by ethnicity.

- Still others have adopted a structural and institutional perspective that links the emergence of ethnic strife to post-1989 processes of nation-building and democratization. As in earlier waves of state-formation, the establishment of democratic nation-states involves a politicization of ethnic differences likely to provoke all sides into adopting increasingly radical positions and, eventually, into resorting to open violence.

Parallel to these debates on how best to understand the wave of ethnic conflicts that has swept over the world during the last decade, several policy approaches to prevent, mitigate, or peacefully settle such conflicts have been proposed. In general, experts seem to be rather sceptical with regard to the possibilities and effectiveness of interventions as soon as a certain stage of escalation is reached.

ZEF is organizing an international and interdisciplinary conference, which will provide a platform for academic experts and policy-makers to exchange their views on the causes and courses of ethnic conflicts as well as on the difficulties and possibilities in managing them peacefully. The conference is titled "Facing Ethnic Conflicts – Perspectives from Research and Policy-making" and is scheduled to take place in Bonn, 14-16 December 2000.



Prof. Andreas Wimmer is Director at ZEF, Conrad Schetter and Ulrike Joras are Junior Research Fellows within his department.



Child Labor and Schooling in Africa

Assefa Admassie

The incidence of child labor is more pronounced in Africa than anywhere else in the world. Recent estimates show that about one third of the children between the age of 10 and 14 are active in the labor market; Eastern Africa accounts for about 33 % while West and Middle Africa account for 24 % and 22 %, respectively. The participation rates of children in economic activities vary from more than 40 % in Ethiopia, Kenya,

New Publications from ZEF

ZEF Discussion Papers on Development Policy

No. 20 - Mahal, A., Srivastava, V., Sanan, D.: Decentralization and Public Sector Delivery of Health and Education Services: The Indian Experience, pp. 77., Bonn, 2000.

No. 21 - Andreini, M., van de Giesen, N., van Edig, A., Fosu, M., Andah, W.: Volta Basin Water Balance, pp. 29., Bonn, 2000.

No. 22 - Wolf, S., Spoden, D.: Allocation of EU Aid towards ACP-Countries, pp. 59., Bonn, 2000.

No. 23 - Schultze, U.: Insights from Physics into Development Processes: Are Fat Tails Interesting for Development Research?, pp. 21., Bonn, 2000.

No. 24 - von Braun, J., Grote, U., Jütting, J.: Zukunft der Entwicklungszusammenarbeit, pp. 25., Bonn, 2000.

No. 25 - Stark, O., You Qiang Wang: A Theory of Migration as a Response to Relative Deprivation, pp. 16., Bonn, 2000.

ZEF Discussion Papers are available free of charge from ZEF. Alternatively, they can be downloaded from the ZEF-Homepage (www.zef.de).

Other Publications

Dixon, R.K., Smith, J.B., Brown, S., Masera, van de Giesen, N. C. , Stomph, T. J. , de Ridder, N.: Scale effects of Hortonian overland flow and rainfall-runoff dynamics in a West African catena landscape. *Hydrological Processes* 14 (1), 165-175, 2000.

Denich, M., Kanashiro, M. , Vlek, P.L.G.: The potential and dynamics of carbon sequestration in traditional and modified fallow systems of the Eastern Amazon region, Brazil. In: "Global Climate Change and Tropical Ecosystems", edited by R. Lal, J.M. Kimble and B.A. Stewart. CRC, Press, Boca Raton FL, 2000.

Wilcke, W., Amelung, W., Martius, C., Garcia, M.V.B. , Zech, W.: Biological sources of polycyclic aromatic hydrocarbons (PAHs) in the Amazonian rain forest. *Journal of Plant Nutrition and Soil Science* 163, 27-30, 2000.

Deutsche Welthungerhilfe, ZEF-Bonn, IFPRI: *Jahrbuch Welternährung*. Frankfurt: Fischer Taschenbuch Verlag, 2000, ISBN 3-596-14670-4.

Uganda and Tanzania to less than 6 % in Mauritius and South Africa, and up to half of all children in Africa drop out of school. An empirical survey was undertaken in Ethiopia to examine the relationship between child labor and schooling as a follow up of ZEF's previous research on the subject of child labor.

Ethiopia has one of the lowest school enrolment rates in the world. It is estimated that 60 to 70 % of the rural children in Ethiopia do not attend school. According to preliminary results from ZEF's survey, about 30 % of the 7 to 10 year old and 50 % of the 11 to 14 year old children indicated work-related reasons as the main cause for non attending school. Some 15 to 19 % of the children from the younger age group and about 30 % of the older age group children identified the cost of schooling and the distance to school as the main reasons for non attendance.

The observations also show that children often combine schooling with different work activities. Some of these are more compatible with schooling than others. On average, school going children have higher participation rates in the collection of fire wood, the fetching of water, and in herding

activities. Child care has been identified as the most incompatible activity with school attendance as being reflected by the higher participation rates of non-school going children in this activity. Similarly, child shepherds who are contracted out to other families are particularly subjugated to long hours of work and are denied any form of education. In addition, school going children are often required to work from two to four hours every day after school and up to 20 hours over the weekends and on holidays. Long working hours are responsible for fatigue; they may cause accidents and impair the child's intellectual development.

Appropriate intervention mechanisms are needed to reduce the work load of these children to raise their academic performance and reduce school drop out rates. One approach in Ethiopia may be to make primary education free and obligatory. Interventions to minimize the direct costs of schooling are also necessary.



Dr. Assefa Admassie is Research Fellow at ZEF and is conducting the study of child labor in Ethiopia.

Improved Land Management in Uganda

Gerd Rucker and Abel Lufafa

Aided by Geographic Information Systems (GIS) and remote sensing, ZEF is able to analyze the resource situation in Uganda, with the aim of developing political measures for improved land management in the country.

Soil nutrient depletion is one of the most critical land degradation problems in Uganda. Scientists indicate increasing soil nutrient imbalances, and farmers complain about continuously declining yields, higher disease pressure and soil erosion in their fields. Farmers' efforts to mitigate the negative trend have been constrained by lack of incentives. Few indigenous practices are applied, such as change of crops from high to low nutrient feeders and shifting cultivation. Declining soil fertility coupled with land scarcity due to mounting demographic pres-



Students of Makerere University, Kampala producing „Community Base Maps“
Photo: ZEF

sure has led to encroachment on fragile lands such as steep slopes in the highlands, swamps and traditional grazing areas. With conventional land management practices persisting, the downward spiral of soil nutrient depletion will soon cause tremendous problems to Uganda in maintaining food security. In cooperation with the International Food Policy Research Institute (IFPRI), ZEF is conducting an interdisciplinary research project "Policies for Improved

Land Management in Uganda". Presently a survey is being carried out in over 100 communities representing different conditions of population pressure, market access and agricultural potential. The objectives are to locate and assess site-specific physical, socio-economic and institutional resources and their interaction over time, which have an impact upon soil fertility decline and farmers' land management (e.g. assessment of changes in soil conditions over time with changes in cropping systems due to increased population pressure and better market access). Research assistants draw georeferenced community base maps (CBM) to facilitate farmers' orientation and subsequent digitization, using enlarged aerial photos and topographical maps. This includes features such as administrative boundaries and roads. Just like GIS themes are organized in layers, a series of transparencies is overlaid on the CBM in a kind of 'Field-GIS' to demarcate the spatial dimension of physical resources, land management and related problems (e.g. soils, cropping system, erosion). On walks along community transects these features are assessed on the ground. Soil samples are collected and analyzed in the laboratory to validate farmers' assessments. Information gathered through questionnaires and secondary data (e.g. contours, climate) complements field and soils data. Aerial photos and satellite images covering the community in different time periods are interpreted to assess temporal dynamics of resources over the last 10 years (e.g. encroachment of cultivation on wetlands, aggravation of erosion problems).

Farmers expressed great enthusiasm about the exercise and can use the maps that are returned to the communities, for assessment and monitoring of soil fertility resources. Researchers overlay the different features such as land use and land management on digital elevation models to identify and assess spatio-temporal dynamics of agro-ecological relationships in soil fertility decline and management. The analysis of the interrelation between the re-

sources shows the hot spots of both degraded and still 'healthy' soil. This leads to a better understanding of the spatial dimension of marginal and favorable lands and highlights the dynamic dimension of pressure factors that force farmers to change their soil fertility management (pathways of development). Results from the community survey will be combined with information gathered during the subsequent survey at household and plot level for up/downscaling and extrapolation.

The resource information collected and analyzed in the GIS bridges research and development between scientists and farmers and could be of use to other stakeholders such as extension service and policy makers in averting soil fertility decline in Uganda.



Gerd Rucker is Junior Scientist at ZEF, Department of Ecology and Natural Resource Management. Abel Lufafa is a student from the Department of Soil Science, Makerere University, Kampala, and is involved as GIS-Assistant in the project.

ZEI – Window

News from the Center for European Integration Studies (ZEI)

Volume 17 of the ZEI monograph series, published in cooperation with Nomos-Verlag, has been recently released: „50 Jahre Europarat“. The editor of the book, Uwe Holtz, was a member of the Parliamentary Assembly of the Council of Europe for over 20 years and has profound knowledge of the activities of the Council located in Strasbourg. As president of the Committee of Economic Affairs and Development, he particularly addressed issues of economics, north-south politics as well as democracy and human rights. The main focus of this book therefore centres around these issues. (Uwe Holtz (Editor): *50 Jahre Europarat, a monograph series by the Center for European Integration Studies (ZEI), Volume 17, NOMOS-Verlag, Baden-Baden, 2000, pp. 377, bound, 128,- DM, ISBN 3-7890-6423-8*).

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The Center for European Integration Studies (ZEI) closely cooperates with ZEF. Together, the two centers constitute the International Academic Forum Bonn (IWB). The work of ZEI integrates legal, economic and social, cultural and political issues of European integration in an interdisciplinary context. Further information: <http://www.zei.de>

Viewpoints

Yehuda Elkana is rector of the Central European University in Budapest und ZEF Board Member



ZEF: How do you define the much used term „interdisciplinarity“ and the meaning it has for the dynamics of producing scientific knowledge?

Elkana: Interdisciplinarity is the intellectual and institutional ability to cope with problems that the world both physical and the world of knowledge present us with, naturally not in terms of the existing disciplinary structure of episteme. Indeed, while periodically the Baconian ‘globus intellectualis’ has to be divided up into manageable bits, i.e. disciplines, never has there been such a distance between the problems that preoccupy mankind and the existing disciplines. In any case, it does not mean that one puts together scholars, each ignorant in the fields of all the others, and hopes for the best, but

that the very laborious, and vitally important stage of formulating the problems is conducted, with often different and mutually incompatible, bodies of knowledge pooled together.

ZEF: What are the obstacles to interdisciplinary exchange and research?

Elkana: The main obstacles are again both epistemic and socio-psychological. Epistemically, the better a scholar is in his or her discipline, the deeper connected he/she is with its methodologies, and the deeper is the belief in the coherence and freedom from contradiction in the relevant body of knowledge. Moreover, the genuine, unprecedented success of creating Science (read „Wissenschaft“), Technology, Medicine and Political Theories, has been in the last three hundred years, growing discontent with much of it notwithstanding, created an even greater commitment to the norms and cluster of research-values in which this success is embedded: universalism, realism, objectivity, context-independence, value-freedom, non-politicality, thinking in terms of dichotomies, and above all freedom from contradiction. In addition, socio-psychologically, the individual conservatism and vested interest in this cluster of values, with the added insecurity stemming from less and less social support for basic research not approved within the framework of oriented research programs, have reinforced the role of disciplinary ‘gatekeepers’. All this constitutes obstacles to interdisciplinary exchange and research.

ZEF: How should interdisciplinarity be organized on the institutional level in order to develop its potential?

Elkana: Institutionally a two-pronged approach is needed: while carrying the stick of authority, heads of institutions must insist on the necessity for carrying out the interdisciplinary process of problem-choice and then problem-solution, creating at the same time the institutional framework for doing so; on the carrot side, those engaged in interdisciplinary work must be given the institutional assurances that they will not be punished in their scientific career for doing so, by quasi-independent, conservative. i.e. anti-interdisciplinary seniors and department heads.

ZEF: Which institutions have, according to your experience, realized the ideal of interdisciplinary research?

Elkana: Institutions that have high prestige like the Ivy-League Universities, Oxford or Cambridge, Institutes of Advanced Study with enlightened leadership who dare to take a stand on what their fellows are encouraged to do (and not merely selecting them on an impersonal ‘objective’ merit basis as seen by committees of referees), and independent Research Centres like for example Max-Planck-Institutes, in those, not too many cases, where their Directors are independent, daring and intellectually risk-taking.

ZEF: Is there a point at which more interdisciplinarity becomes useless or even counter-productive?

Elkana: Clearly today, as always, there are problems in science which are precisely formulated in terms of an existing, methodologically healthy discipline, where all attempts to tamper interdisciplinarity would be a mere noise in the system. In such cases, dogmatic insistence on interdisciplinarity is use-

facts and news

The Federal Ministry of Economic Cooperation and Development (BMZ) has approved a grant to ZEF of around three million German Marks over the next four years. The funds will be used to promote up and coming young scientists from developing countries within the framework of ZEF’s International Doctoral Studies Program. The objective of the program is to strengthen in the long term practice-oriented development research as well as policy advice in developing countries.



The Ministry for Science and Education (BMBF) has recently officially approved the ZEF-lead research proposal concerning the Volta Basin. The proposal, entitled “Sustainable Water Use under Changing Land Use, Rainfall Reliability and Water Demands in the Volta Basin”, is an integrated multi-disciplinary project and involves all three ZEF departments, as well as the Fraunhofer Institute for Atmospheric Environmental Research (IFU, Garmisch-Partenkirchen), Remote Sensing Research Group (RSRG, Uni-Bonn), the Department of Tropi-

cal Hygiene (Uni-Heidelberg) and the Institute of Water Resources and Land Improvement (IWRLI, Uni-Bonn). The project will be hosted by SARI in Tamale, Ghana, and depends heavily on cooperating partners from other institutes of the Counsel for Scientific and Industrial Research (CSIR) and the University of Ghana at Legon. For the approved first three-year phase, four staff will be funded from the project as well as thirteen PhD students.



The Ministry for Science and Education (BMBF) has also ap-

proved a one-year project to develop a research proposal on improving resource use efficiency in the agriculture of the Aral Sea Basin. The Aral Sea has lost 80% of its water volume compared with 1960 when intensive irrigation projects were started in the area of its largest affluent, the Amu Darya river. The proposal will be an integrated research project developed by all three ZEF departments together with research partners in Uzbekistan and UNESCO, Paris.



less, or even harmful. In other words the issue of whether or not an interdisciplinary approach is to be favored starts with an in-depth analysis of the problem, often discovering that it is not even formulated on a researchable level.

ZEF: *Do you think that interdisciplinarity should replace disciplinary research and discourse?*

Elkana: The answer to this question follows from the answer to the previous one: as long as the given division of the 'globus intellectualis' into disciplines holds, some problems will have to be dealt with in terms of existing disciplines, while others will have

to be studied interdisciplinarily. At the same time researchers and university curriculum experts will have to be working continuously and reflectively on changing the division of the world of knowledge into new disciplines as they emerge. What this means for the curriculum is that on the epistemic level all disciplines will have to be taught so as to involve reflective thinking about their own foundations, presuppositions and methodologies. Second-order thinking should become part and parcel of the first-order-thinking of the disciplines and not remain the separate domain of philosophy of science or „Wissenschaftstheorie“.



Why Termites Matter

Christopher Martius

Research at ZEF reveals the extent to which soil fauna influences organic matter in tropical ecosystems.

Most farmers do well without ever caring about soil fauna, although soil scientists have long pointed to the importance of soil animals for nutrient cycling. Particularly the macrofauna, large soil animals like termites or earthworms, has recently been studied in central Amazonia, in a research project (<http://www.cpa.embrapa.br/env52/indexuk.html>), in which ZEF cooperated with partners in Brazil and Germany. The project was funded from the SHIFT program (Studies of Human Impact on Floodplains and Forests in the Tropics) of the German Ministry for Science and Research (BMBF). A key result was that the macrofauna helps plant litter to decompose faster. In rain forests, dead leaves in the litter layer lost 80% of their original weight during one year when macrofauna was present, but only 50% when it was excluded. In the studied agroforestry systems the overall level of decomposition was lower, but large arthropods still could speed it up.

Therefore, without macrofauna, plant debris would accumulate and its turnover rate would be reduced. But findings from a joint research project between ZEF, EMBRAPA (an agricultural research institute in Manaus, Brazil) and the University of Bayreuth (Germany) show that the role of this fauna is much more complex. In their mounds, termites accumulate lignin, the complex molecules that make up the woody structure of plants and are the precursors of humus, a stable form of organic matter



Termite hill in Niger Photo: ZEF

and important for sustaining soil productivity. But the pathways of lignin decomposition in the nest material of different termite genera seem to be highly variable; each nest shows a different "lignin signature". Termites have thus found a way to stabilize organic matter in their nests, and it is likely that active and diverse termite communities contribute to the stability of organic matter in tropical soils.

Managing the macrofauna could therefore play an important role in low-input systems, e.g. mulching systems based on organic matter inputs. Studies are now beginning to determine how soil macrofauna can be manipulated in the fields, in such a way that they can deliver the benefits without destroying the crop. For farmers struggling on marginal land, "feeding the soil fauna" might ultimately become part of their strategy to conserve and enhance the soil.



Dr. Christopher Martius is Senior Scientist at ZEF, Department of Ecology and Resource Management.

New Criteria for the EU-ACP Co-operation

Susanna Wolf

In February 2000, the EU and the 71 states of Africa, the Caribbean and the Pacific region (ACP countries) came to a new partnership agreement, which is to be valid for 20 years, relieving the present Lomé Convention. The agreement is expected to be signed in Fiji at the end of May 2000. During the one and a half years of negotiation, not only the organization of commercial regulation but also the financial co-operation was carefully examined.

Between 1975 and 2000, around 23 billion Euro were spent within the framework of the Lomé Convention. In the past, the EU funds were not primarily distributed depending on the needs and performance of the ACP countries but rather in the interests of the EU members. In future, the funds are to be divided according to the "level of development" and the efforts of each country in areas such as economic policy or human rights. 13.5 billion Euro are planned for financial co-operation from 2000 to 2007. Based on the new criteria, poorer countries which in the past received only limited financial support will receive increased funding. The more developed countries will be compelled to accept less, as will those countries with difficulties in democratization and realization of human rights.

The reform to the Stabex system (Stabilization of export earnings) will also impact on the distribution of EU funds. As determined during the Lomé partnership and which is part of the new agreement, support of the private sector is to be improved.

To analyze the possibilities of supporting private investment in Africa, ZEF has launched a new research project "Chances, Barriers and Options of SME in a Liberal Global Economy: Theoretical Issues and Empirical Evidences from East Africa" in cooperation with the University of Dar es Salaam. Francis Matambalya, Senior Fellow at ZEF, is carrying out the project which has an emphasis on studying the competitiveness of small and medium scaled enterprises.

For further reading: Wolf, S., D. Spoden, Allocation of EU Aid towards ACP-countries. ZEF Discussion Papers on Development Policy No. 22, March 2000



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Human Rights and Development

Joanna Pfaff-Czarnecka

A new research program at ZEF examines the importance of human rights in development.



Photo: DSW

The 1990s have witnessed a significant expansion of the human rights regime. All over the world, an ever increasing number of state and non-state actors seek to enhance the respect for a growing number of officially recognized human rights. The international legal framework has been continually enlarged and refined. More and more

people and organizations express interests and grievances in the language of rights, entitlements, and obligations. Development policies, national and international, mirror the enhanced weight of the rights' approach.

In view of this on-going expansion and proliferation, it is intriguing that rather little is known about the actual mechanisms through which human rights become respected in everyday life as well as in the legal and political system. The question is how the international legal instruments and agreements are implemented by various stakeholders, and how their meaning is interpreted and transformed during this process. It needs to be analyzed how implementation affects the establishment or re-making of a legal institutional infrastructure, and how it shapes new types of relations between actors and institutions. The recently established research program "Human Rights and Development" of the ZEF Department "Political and Cultural Change" takes a socio-legal perspective in order to understand the dynamics of implementation and institutionalization.

Taking a socio-legal perspective means focusing on actors and institutions. The constellation of actors involved is increasingly complex, comprising individuals, non-governmental organizations (NGOs), pressure groups and movements, states as well as supranational bodies. Their concerns

and interests, their goals and their organizational dynamics have to be established. The outcome of their negotiations, the potential synergies between their strategies, the power base from which they operate, as well as institutional constraints within which they are operating have a substantial impact upon the relative "success" of implementation measures. Furthermore, it needs to be examined how such constellations of actors

affect the framing and interpretation of international and national human rights norms. How are the international norms linked to national frameworks, and what forces impede or enhance their realization in everyday practices of state and private agencies? How do particular stakeholders influence the diffusion of the human rights discourse? Is there an emerging division of labor between actors such as governments, NGOs or corporate enterprises, in the implementation of human rights? What kinds of refinement are necessary in order to render their efforts in implementing human rights more efficient and legitimate?

Manifold debates on the scope, the content and the potentials of human rights as well as the proliferation of negotiations between stakeholders adopting a "rights talk" have contributed to the expansion of the human rights regime. This trend also manifests itself within the development field, where the prospects and the possible impacts of the human rights' approach to development are debated. Such controversial concepts as the "right to development" need to be examined, and there is a perceived need to understand the implications of the extra-legal use of the term 'rights'. The social and cultural factors are still in focus of debates: Are "Asian values" or the lack of an established middle class impeding the adoption of the human rights

perspective? What are the factors furthering the acceptance of human rights in developing countries? Are they to be identified in the frameworks of culture, religion or identity?

An important area of this research-program will address the meaning of the human rights' approach for development cooperation. In recent years, a consensus has been reached that future development measures require a legal framework binding for both donors and recipients and providing a common ground for conflict management. Crucial lines of debate, however, remain. They concern the nature of these mutual rights and obligations, the priorities to be given in agreements and interventions, and the legitimacy of claims of the state parties, affected individuals, groups, and other legal persons on implementation.

The research program will contain projects that combine inquiries at the micro-, meso-, and macro-level. Concrete measures aiming at fostering human rights in different countries will be analyzed comparatively against the backdrop of international and national legal frameworks. Individual interventions will be examined in the broader context of the legal, political, administrative structures, seeking to assess how sustainable and consistent the institutional arrangements are in the framework of which various stakeholders define and pursue their goals. Case studies will allow insights into the implementation prospects of policies and norms when actors from various sectors concert their activities in realization of the human rights.



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Impressum

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