



Editorial

'Davos Man' versus 'Seattle Man':
Can They Agree on Decentralization?

The discord over globalization will not be quickly overcome. "Davos Man", symbolizing international business and political establishment stands against "Seattle Man", who signifies civil societies' influential pressure groups. What can be undertaken to overcome this conflict?

The much called for better "global governance" is at best half of the solution. The other – better – half is decentralization, but of the right kind, not everywhere for everything. Decentralization is not just a parallel trend of globalization but is very much driven by it. The global pressure is for better local policies.

Analyses at ZEF suggest that stronger political decentralization combined with democratic elections has indeed substantial positive effects for the poor. Administrative and fiscal decentralization alone adds neither power nor voice to the poor.

Both "Davos Man" and "Seattle Man" should identify decentralization as their island of consensus and policies should provide them with incentives to meet there.


Joachim von Braun
Director at ZEF

Health Insurance in Developing Countries?

Johannes Jütting

For most people living in developing countries "health insurance" is unknown. It is generally assumed that, with the exception of the upper classes, people cannot afford such type of social protection. Poor people need protection against the financial consequences of illness. For most people living in developing countries illness still represents a permanent threat to their income earning capacity. Besides the direct costs for treatment and drugs, indirect costs resulting from the lost labor of the ill have to be shouldered by the household.

Against this background ZEF is currently analyzing, in close collaboration with national research institutes, the prospects and limitations of innovative health insurance

schemes in its research program on social security systems in rural areas. Empirical studies are currently being carried out in Ethiopia, China, Ghana, India, Senegal and Tanzania. The aim of these projects is to estimate the demand for health care and health insurance, to quantify economic and social impacts and to identify factors of success and failure. The studies focus on rural areas where the need for insurance is especially high. But private insurance markets do not exist and public measures often fail to reach their target population.

Recent study finds positive effects

Nevertheless, even the rural poor can insure themselves against the risk of illness. This was shown by a recent study carried out in Senegal and funded by the STEP program of the International Labour Organisation (ILO). The findings imply moreover that health insurance can result in economic advantages for the insured.

In Thies, a rural region in Senegal, community based health insurance schemes, evolving from traditional forms of mutual assistance, have been developed in the last ten years. These *mutuelles de santés* (mutual health insurance schemes) have around 500 members on average and are deeply rooted in the local structure. The idea of the *mutuelles* is simple: low cost expenditure is covered by the family, however, in the case of hospitalization the costs are covered by the mutuals. To enable this, the community based health insurance schemes have established a contract with the hospital St. Jean de Dieu in Thies, which is run by the church. This grants members



In Senegal health insurance covers an important part of the costs of hospitalization
Photo: ZEF

of *mutuelles* substantially reduced fees for specific treatment and services.

In May 2000 ZEF and the Institute for Health and Development in Dakar conducted a household survey to estimate the impact of the *mutuelles* on health care demand, costs and health outcomes. Roughly 350 households in four selected communities were interviewed, of which 60% were members and 40% non-members of a *mutuelle*. In the light of the limited services provided – only hospitalization, no primary health care – and the low financial capacity of the *mutuelles*, their impact is surprising. Members pay roughly one-third less than non-members in the case of hospitalization, and recover on average three weeks earlier. A possible explanation for the faster recovery process could be that members seek directly hospital assistance in the case of a serious illness or an accident, whereas non-members tend to avoid hospitalization. This means that they might only go to hospital when the illness has become very severe, no longer allowing for timely treatment. Furthermore, during the interviews, members stressed that joining a mutual has led to a reduction in their worries. In the case of serious illness they are no longer dependent on assistance from their social network, or on money from the local moneylender. However, the study has also shown that the poorest of the poor do not participate in the mutuals. They lack the financial resources to pay regular membership contributions. Therefore, the *mutuelles* cannot provide health insurance for this group of people.

The results of the Senegal study show that viable health insurance schemes for the poor are feasible even without subsidies from the public sector. More importantly, they can have a positive effect on the economic and social situation of their members. However, for the poorest of the poor other solutions need to be found. To what extent health insurance, or rather lack thereof, affects people's willingness to undertake risky, but potentially profitable investments needs to be further investigated. A premise for the success of a community based health insurance scheme is the existence of a viable health care provider, the understanding and acceptance of the insured, as well as the institutional design of the scheme.

Dr. Johannes Jütting is scientific coordinator of the research project "Social Security Systems in Developing Countries" at ZEF. The study conducted in Senegal was financed by the STEP-Program of the International Labour Organisation (ILO).

Russia's Interregional Trade Suffers from High Transaction Costs

Arnim Kuhn

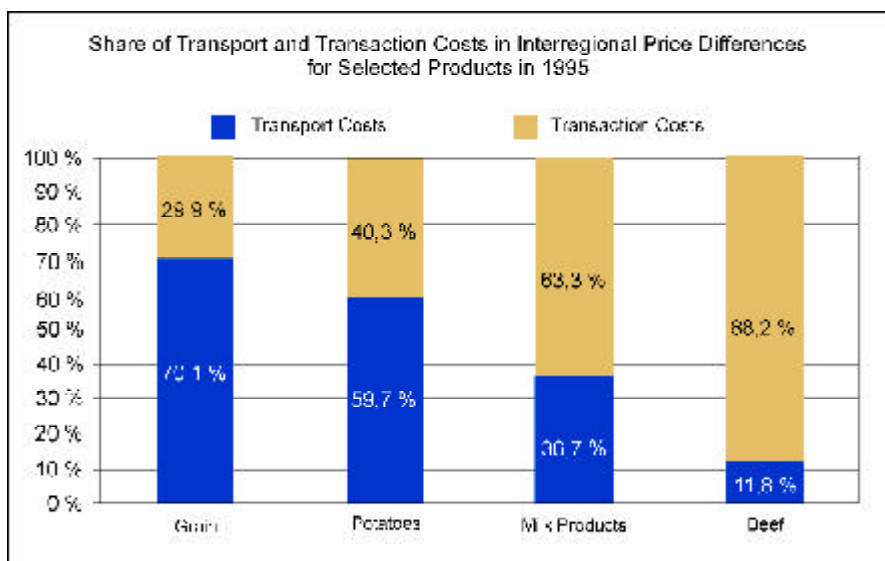
While in some regions of Russia produce can be purchased at spot prices, in other regions of the country the same produce is almost unaffordable. A ZEF study examines the causes.

Enormous price differences and the virtual absence of regional specialization in agriculture in Russia indicates that regional food markets are only weakly integrated. This means that trade potentials are not being exploited. On the other hand, subsistence production on small plots, home gardens and dachas is gaining in importance, particularly in the climatically disadvantaged areas of Siberia and the Far East.

high in Russia. Transaction costs increase with the degree of uncertainty in the reliability of the trade partner as well as with the quality of the product in question, and also with the distance over which the transaction is carried out.

An analysis of interregional price differences for grain, potatoes, dairy products and beef has shown that the transaction cost component indeed increases with the value of the analyzed products and can reach almost 90 % for beef. These results have far-reaching consequences for interregional trade policy.

The results of a trade simulation model confirm what could be deduced from these findings: In order to improve food security in remote and agriculturally disadvantaged regions of Russia, measures that reduce transaction costs are much more promising



ZEF research in co-operation with the Institute for the Economy in Transition (IET, Moscow) shows that underdeveloped interregional trade is closely linked to high trade costs. Looking at trade costs more specifically, the transaction cost component of trade is revealed to be most important. Transaction costs are resources which are needed for defining contracts and monitoring their application and enforcement. Due to weak market institutions and inefficient administrative market interventions at the regional level these costs are relatively

than transport subsidies. Therefore, measures such as the strengthening of the legal system, or the improvement of market information systems, should have high priority.

Until recently Arnim Kuhn was research fellow at ZEF and is currently engaged as a consultant in Bonn. The research project was funded by the Volkswagen Foundation.

Does Culture Matter? Politics and Governance in the Mediterranean

There has been a 'renaissance' in the study of culture within the Social Sciences. Norms of trust and social capital as well as culturally determined styles of behaviour are thought to be important for understanding political life. While some see such cultural factors behind divergent political systems, others look at ways in which rational action is refracted by different institutions.

A workshop organized by ZEF in conjunction with its partner institute, the Center for European Integration Studies (ZEI), to be held on 19 and 20 June 2001, will discuss the relevance

of culture for the functioning of institutions. The workshop will focus on the Mediterranean region due to its cultural and institutional diversity, using as a backdrop the EU's explicit policy of promoting its institutions in that region. Scholars from the Mediterranean, Europe and the USA as well as policymakers from the region will be given the opportunity to exchange their ideas. The participants will focus on conceptualizing better working definitions of concepts and examine concrete cases drawn from the Euro-Mediterranean area. What will be the implications to policy? This and other questions will be discussed at the workshop.

Further information: Dr. Indra de Soysa
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ZEF - Calendar

JUNE 2001

19/20 June: *International Workshop: „Does Culture Matter?“* (in cooperation with the Center for European Integration Studies (ZEI)). *Conference Venue: Festsaal, University of Bonn.*

NOVEMBER 2001

7–9 November: *International Conference „Tropical Agriculture in Transition – Opportunities for Mitigating Greenhouse Gas Emissions?“* (in cooperation with the Fraunhofer Institute for Atmospheric Research, Garmisch-Partenkirchen); *Conference Venue: Gustav-Stresemann-Institut, Bonn.*

Efficient Water Institutions - The Prerequisite for Sustainable Water Use

Annette van Edig and Nick van de Giessen

Water - a resource in short supply. Institutional analysis conducted within the GLOWA-Volta project will provide insights into the formal and informal rules of water use in Ghana.

This approach is adopted in the GLOWA-Volta project, a ZEF-lead research endeavour that commenced on 1 May 2000. The project, funded by the Federal Ministry of Education and Research (BMBF), seeks to develop a scientifically sound decision support system (DSS) for the management of water resources of the Volta Basin. The DSS has to simulate water avail-

outline realistic water policies based on the institutional setting and rules in the riparian countries.

Ghana provides an interesting case study as the country is currently undertaking major institutional reforms in the water sector. The Water Resources Commission (WRC), established in 1996, is the umbrella organization for water management and water use in the country and will harmonize the various activities. Urban water supply will be privatized in 2001. It is expected that the prices for drinking water will rise considerably. On the other hand, in rural areas villages have to contribute financially to water facilities, but they can also determine the rules of fee collection. To what extent the ongoing reforms have a positive implication for efficient water use at the local level will be part of the institutional analysis. The analysis of ongoing changes will provide insight into the effects of the new institutional arrangements on the efficiency of water use at different administrative levels, including the local level. Research on the institutions involved will be conducted in Ghana as well as in Burkina Faso with the support of researchers from both countries. By integrating technical and economic solutions with political and institutional findings the project will provide innovative methods that shall contribute to achieving sustainable and politically feasible water use in the Volta Basin.

Institutions matter! This perception grows steadily in development research when problems of water use are tackled. Institutions and their rules determine how water is allocated and used. Actors in institutions - from the water minister to the local chief - are the key persons responsible for the implementation of changes. Thus, it is of crucial importance to obtain their support. Without knowledge of the political and legal environment of the institutions, their constraints and potential reforms are unlikely to succeed. Actors should be integrated from the beginning into the research work.



Collecting water in Ejura, Ghana

Photo: ZEF

ability and demand throughout the basin under different global change scenarios and help to define optimal resource management strategies to achieve desired goals. The institutional analysis will contribute to

Dr. Annette van Edig is research fellow at ZEF conducting the institutional analysis. Dr. Nick van de Giessen is hydrologist at ZEF and co-ordinates the GLOWA-Volta Project.

Oil palms: Ancient Fungi Give a Hand to Biotechnology

Paul L.G. Vlek and Claudia Schultz

Oil palms are grown for the production of oil used in the manufacture of margarine, soap and cosmetics. Indonesia with 6,7 and Malaysia with 10,6 million tons per year are the two leading palm oil producers, contributing 75 % of the annual world production. The high world market price of crude palm oil of around 600 US \$ per ton in the period 1995-1998 has spurred investors to aggressively develop and rejuvenate plantations on Sumatra and Kalimantan in Indonesia, requiring millions of young seedlings.

The oil palm sector in South East Asia was built on a few imported plants originating from West Africa. The highest oil production is obtained from the hybrid type "Tenera", a spontaneously hybridizing plant, which by its very nature is genetical-

ly highly diverse. Even with careful crossing using an elite specimen of the parental types (Dura and Pisifera), the production potential of the Tenera offspring is not known until the plants come into production after four to five years of growth.

The successful introduction of tissue-culture techniques a decade ago has opened the way to cloning elite Tenera palms, eliminating the uncertainty of productivity. But, to transfer the plantlets from the test tube to the soil is fraught with problems. One third of the plantlets do not survive this weaning process, raising the production costs of this technique. To increase the survival rates, in collaboration with its partners from Indonesia, ZEF brought in an ancient friend of plants, namely the endomycorrhiza forming root-fungi. This mycorrhiza — a symbiotic fungal association — has accompanied the evolution of most higher plants over millions of years. It plays an essential role in helping the feeble plantlets acquire their nutrients from the soil and protecting them against infection by pathogens.

Experiments financed by the Federal Ministry of Education and Research (BMBF) and carried out in Indonesia clearly showed that the introduction of minute amounts of the fungi into the soil essentially eliminated plant mortality and resulted in more vigorous and better developed plants.

At the current selling price of clonal palms in Indonesia of 2 - 3 US Dollars, the observed 30-40 % reduction in plant losses when this biological measure is applied, could bring savings to planters of around 100 US Dollars per hectare. In 2001 alone, Indonesia proposes to plant a quarter of a million ha of oil palm. Tissue culture centers have been quick to adopt the new technique.



Claudia Schultz is a doctoral student at the University of Göttingen under the guidance of Prof. Paul Vlek, director at ZEF.



ZEF Participates in G8 Dot Force

Romeo Bertolini and Dietrich Müller-Falcke

At last year's G8 Summit in Japan government leaders agreed to promote the penetration of modern information and communication technology (ICT) throughout developing countries. The decision, formulated in the "Okinawa Charter on Global Information Society", resulted from a growing concern that a "digital divide" may deepen the already existing economic imbalance between developing and industrialized countries, with the gap between "rich and poor" becoming even greater and the stability of the international community being at risk.

The G8 established the "Digital Opportunity Taskforce" (DOT force) whose aim is to develop an action oriented strategy to bridge the "digital divide", which is to be discussed at the next G8 summit in summer 2001. The specific themes the DOT force is especially concerned with are: (1) policy and regulatory frameworks in developing countries as well as at an international level, (2) measures to expand ICT infrastructure and broaden access to ICT, (3) knowledge and human capital issues, and (4) the identification of locally-relevant, sustainable applications.

Recognizing the pervasive nature of the problem the G8 decided not only to appoint G8-government members to the DOT force, but also to include representatives from business, non-governmental organizations

Doctoral Studies Program



Talia Vela-Eiden

has been a participant of the ZEF International Doctoral Studies Program since October 2000. The student from Peru is a lawyer and is writing her thesis on the impact of structural adjustment programs on the national institutional framework and policy in Peru.

How did you learn about ZEF's International Doctoral Studies Program and what motivated you to apply?

I learned about ZEF's Doctoral Program through an international newspaper advertisement during mid-1999. At that time I was already searching for possibilities to carry out my doctoral studies in Germany or the Netherlands. It was my personal aim from the beginning to conduct my research in English. I therefore contacted ZEF and requested information material on the program. Ultimately, the objectives and the interdisciplinary nature of the program convinced me to apply for a place.

You are now six months into the program. What is your assessment of the "interdisciplinary philosophy" of the program and what impact does this have in relation to your own work?

I believe the interdisciplinary character of the program provides for significantly broader research approaches. Evaluating the problems in developing countries from an interdisciplinary perspective, in my opinion contributes to achieving improved initiatives for possible solutions. Personally, for example, the program provides me with the opportunity to address legal issues also taking into account prevailing social and political influences.

To what extent do you believe the knowledge and experience gained from the program will benefit you in your further career?

After the program, my hope is to return to Peru and work there for some years. The possibility of looking for international positions is also not discarded, however, I see this chance only in the event where the work is related to Latin America. A Ph.D. degree acquired under the German system will definitively increase my chances of career advancement. However, one also needs to consider carefully as the 'job market' in the field of development cooperation is less flexible due to the demand for increased specialization and the bias to degrees from the Anglo-Saxon educational system.

For further Information on the program: docp.zef@uni-bonn.de; www.zef.de

facts and news

Around 1.8 million German Marks have been put at the disposal of ZEF during the next three years by the Federal Ministry of Education and Research (BMBF) for the research project "Small holders in Amazonia: Interactions between ecosystem and social system in tropical rain forests". The project will come under the direction of ZEF together with Brazilian scientists and will be carried out within the framework of the German-Brazilian research program SHIFT. The project is based on a further ZEF project "Secondary forests and fallows in the cultivated land of Brazil's Eastern Amazon region".

Dr. Stefanie Kirchhoff, research associate at ZEF, was recently accepted as group leader in a newly created research program of the Robert Bosch Foundation

for junior scientists. In the next three years, Dr. Kirchhoff will receive a grant of around 850,000 German Marks for the establishment and leadership of a research group whose primary function will be to address the determinants and effects of alternative institutions for natural resource management in developing countries.

A World Bank – Information Kiosk has recently been established at the German Foundation for International Development (DSE) in Bonn in co-operation with ZEF. The kiosk provides interested visitors with all new World Bank publications, provides access to over 3,000 World Bank titles since 1963 as well as CD-Roms and offers guidance in literature research and in utilization of the World Bank internet site. The kiosk will receive the

support of the World Bank Public Information Center in Europe based in Paris and is the first and only kiosk of its type in Germany.



The newly elected executive director of the United Nations Population Fund (UNFPA), Dr. Thoraya Ahmed Obaid, was guest lecturer at ZEF on 8 March 2001 within the framework of the 7th Bonn Dialogue on Development Policy.

On the occasion of World Women's Day, she gave a lecture on "Bridging Cultural Values and Women's Reproductive Rights: A Future Priority of UNFPA". Co-organizer of the event was the German Foundation for World Population (DSW) Hanover.

Within the framework of its INCO-Program, the EU will promote a multi-disciplinary project "Impact on Changing Land Cover on the Production and Ecological Functions of Vegetation in Inland Valleys in West Africa". The project will be coordinated by Alterra, Wageningen, in cooperation with other partners from the Netherlands, Italy, Burkina Faso and Ghana. As the German project partner, ZEF will conduct hydrological research, the data and results of which will subsequently flow into ZEF's GLOWA-Volta project.

(NGOs), developing countries and international organizations. As ZEF has established an international research program on ICT over the past three years, Joachim von Braun, director at ZEF, was appointed by the German government to represent the German non-governmental sector on the DOT force. ZEF's task is to collate the viewpoints of German NGOs and integrate these into DOT force discussions. On 20 February 2001, ZEF invited German NGOs to a workshop entitled "Digital Divide – What has to be done?" The basis for the workshop was a policy document developed by ZEF which was discussed by the 25 participants. During the workshop, representatives from the United Nations Volunteers (UNV), German Foundation for World Population, Carl Duisberg Gesellschaft and Bertelsmann Foundation contributed their views.

The policy paper, which identifies principles for action and possible initiatives to tackle the "digital divide", was presented to the DOT force by J. von Braun at its conference in Cape Town on 1 March. The paper calls for public, private, bi- and multilateral approaches to finance ICT related infrastructure development. This should especially be the case where investments help to build digital public goods alongside economic, industrial and commercial opportunities. For the latest output related information: (www.dotforce.org).

Romeo Bertolini and Dietrich Müller-Falcke are research fellows at ZEF, Department "Economics and Technological Change".

(No) Snow on Mount Kilimanjaro

Luis José Mata

Recently, the vanishing snow on Mount Kilimanjaro has become a metaphor for the fast global warming that is presently being observed. Recognizing the needs of policy makers for reliable, advanced and up-to-date scientific information, the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP) established in 1988 the Intergovernmental Panel on Climate Change (IPCC).

IPCC in 1990 published its First Assessment Report (FAR) recommending urgent negotiations on a global climate change agreement. A Second Assessment Report (1995) established that "the balance of evidence suggests that there is a discernible human influence on global climate change". Global warming due to human activities was still emerging from the background of natural climate variability.

In January this year, the IPCC Working Group on 'The Science of Climate Change' approved its Summary for Policy Makers (SPM) as a contribution to the Third Assessment Report (TAR). It established that "there is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities".

In February, the Working Group on 'Impact, Vulnerability and Adaptation to Climate Change' documented that during the 20th century, climate changes had already

affected physical and biological systems. Furthermore, changes in climate extremes, such as El Niño and La Niña, will have major consequences such as more massive flooding and drought in rich and poor countries around the world. Projected climate changes will potentially lead to large-scale and possibly irreversible changes in earth systems during the 21st century. The findings underline the need for solid policy action, such as cuts in greenhouse gas emissions.

ZEF has participated in elaborating the IPCC Third Assessment Report (TAR), specifically the chapters on 'Impact, Vulnerability and Adaptation to Climate Change in Latin America' and on 'Advancing our Understanding of Climate Change'. These two chapters state that the adaptive capacity of the human system in Latin America is low, particularly with respect to extreme climate events, and that further research is required to improve the ability to detect, attribute and understand climate change. The TAR will be a central basis for the continuing work of the Framework Convention on Climate Change (FCCC). Maybe more importantly, it will assist greatly in educating the scientific community, industry, policy makers and the general public regarding climate change and its consequences. The Summaries for Policy Makers are available on the IPCC web page (<http://www.ipcc.ch>).

Dr. Luis J. Mata is senior scientist at ZEF and one of the IPCC Assessment Report lead authors.

Viewpoints

Dennis Tirpak is co-ordinator for Science and Technology in the Secretariat of the United Nations Framework Convention on Climate Change based in Bonn.



ZEF: How important is the work of the Intergovernmental Panel on Climate Change (IPCC) to the work under the United Nations Framework Convention on Climate Change (UNFCCC)?

Tirpak: The IPCC was launched in 1989 under United Nations General Assembly resolution 43/53, which requested it to define elements of a possible future international convention on climate change. It has done its job extremely well. Without the IPCC there would not have been a Convention. Without the IPCC, governments would be in the dark with regards to new scientific information. Thus far the Convention process has respected the integrity and independence of the IPCC, despite relying heavily on it as a primary source of scientific and technological information.

ZEF: What is the status of negotiations at the present time?

Tirpak: Last year in The Hague, the Parties to the Convention attempted to finalize many of the rules and guidelines necessary to implement the Kyoto Protocol. They were unable to do so because of the complexity of the issues which range from capacity building for developing countries, rules for emission trading, compliance, and decisions related to land-use change and forestry - just to mention a few. We expect negotiations to resume in Bonn, Germany, between 16-27 July. Prior to that we expect to arrange a

series of consultations to see whether countries can narrow their differences.

ZEF: How will the American position affect the work of the Convention and preparations for the resumed session of the Conference of the Parties?

Tirpak: Activities under the Convention are proceeding as usual. The Annex I Parties are preparing their third national communiqués which will be submitted in November. We have just completed a workshop to facilitate the preparation of those communiqués. In mid April, greenhouse gas emission inventories are due from those countries. The secretariat has developed a new data base to store this information and will be organizing special technical reviews of those inventories, including visits by teams of experts to selected countries. We are also receiving more and more communiqués from

developing countries - so the Convention process is alive and well. With respect to the resumed Conference of the Parties, we are actively preparing for the resumed session. We expect a great deal of media attention, therefore facility planning and meeting preparations are well underway.

ZEF: What would you consider a prudent approach to some of the signals coming from Washington?

Tirpak: First of all, it is important for the Convention process to work with all Parties. The US administration is new and still in the process of appointing the second-tier staff. Once this is concluded, it may well be that constructive ideas are brought to the negotiating table. After all, the USA has ratified the Convention and we have every expectation that it will remain a Party.

New Publications from ZEF

ZEF Discussion Papers on Development Policy

No. 35 - Lopez, R.: Growth, Poverty and Asset Allocation: The Role of the State. Bonn, 2001.

No. 36 - Taketoshi, K.: Environmental Pollution and Policies in China's Township and Village Industrial Enterprises. Bonn, 2001.

Articles (Selection)

de Soysa, I., Gleditsch, N. P., Lindgren, G., Mouhleb, N.: A Bibliography on Disarmament & Conversion, Regina Press, Claremont, 2001.

Kössler, R.: From Reserve to Homeland: Local Identities and South African Policy in Southern Namibia, in: Journal of Southern African Studies 26, 3, 2000, pp 447-462.

Manske, G.G.B., Ortiz-Monasterio, J.I., van Ginkel, M., González, R.M., Rajaram, S., Molina, E., Vlek, P.L.G.: Traits Associated with Improved P-Uptake Efficiency in CIMMYT's Semidwarf Spring Bread Wheat Grown on an Acid Andisol in Mexico, in: Plant and Soil 221, 2000, pp 189 - 204.

- Manske, G., Tadesse, N., van Ginkel, M., Reynolds, M., Vlek, P.L.G.: Root Morphology of Wheat Genotypes Grown in Residual Moisture, in: S.W. Breckle, M. Veste and W. Wucherer (Eds.), Sustainable Land Use in Deserts, Springer-Verlag, Berlin, 2000.

- Schetter, C.: Der Krieg in Afghanistan und seine regionale Dimension, in: Wolfgang Wagner et al. (eds.): Jahrbuch internationale Politik 1997-1998. München: Oldenbourg, 2000, pp 211-221.

- Tadesse, W., Demel, T., Edwards, S., Olson, M.: Woody plant and avian species diversity in a dry Afromontane forest on the central plateau of Ethiopia: biological indicators for conservation, in: Ethiopian Journal of Natural Resources 2 (2), 2000, pp 255-293.

- Wagner, Chr.: Demokratie, Ethnizität, Globalisierung: der Fall Sri Lanka, in: Günter Meyer, Andreas Thimm (eds.): Ethnische Konflikte in der Dritten Welt, Mainz: University Mainz, 2001, pp 61-80.

- Weinberger, K., Jütting, J.: The role of local organizations in risk management: some evidence from rural Chad, in: Quarterly Journal of International Agriculture, Vol. 39, No. 3, 2000, pp 281-299.

ZEF: Should the rest of the world go it alone?

Tirpak: As a member of the secretariat, it is not for me to say, this is a matter for the Parties to decide. Mr. Pronk, President of the Conference of the Parties, has launched a catalogue of new ideas that will be discussed at a ministerial meeting the week after

Easter in New York. Later in the spring, there may well be additional consultations between governments. Hopefully, by the time COP 6 resumes the USA will be able to come forth with ideas of its own. At that time, Parties will have to decide how they wish to proceed



Nutrient Response Units (NRU)

A Landscape Based Concept for Sustainable Land Management in Uganda

Gerd Rucker, Soojin Park and Henry Ssali

Nutrient loss and soil erosion are widely spread problems in Uganda. A "landscape based" nutrient management approach shall help combat these problems.

The simple way of managing the fertility of the soil is to tailor technology to the farmer's abilities rather than to the needs of his land. Such an approach is widespread in Africa but ignores differences in land quality (e.g., soil organic matter levels) and soil fertility transfer (e.g., nutrient flows due to erosion) within a landscape. A new way

In densely populated areas of Uganda, such as the Lake Victoria Crescent and the Eastern and South Western Highlands, soil nutrient resources are being rapidly depleted. This is mainly due to continuous cultivation coupled with poor land management. As farmers lack the financial means, markets for input and the knowledge of appropriate land husbandry, there is little or no replenishment of nutrients - neither with organic nor inorganic fertilizers. Heavy rainstorms cause rampant soil erosion on slopes where virtually no soil or water conservation is practised. Farmers struggle with deteriorating land quality and are forced to grow low nutrient demanding crops or abandon highly degraded fields. Over the past thirty years this has led to a shift of banana (Matoke) cultivation in favor of root crops such as sweet potato and cassava within the Lake Victoria Crescent. Matoke cultivation has moved to the west. Farmers are also encroaching on wetlands in valleys and fragile lands such as traditional grazing land on hilltops. Since these lands have low resilience, soil nutrients are being depleted at a faster rate.



Nutrient loss through agriculture and erosion is one of the most urgent problems in Uganda. Photo: ZEF

of targeting fertility management options within a landscape is being developed by ZEF and the Kawanda Agricultural Research Institute (KARI) of the National Agricultural Research Organization (NARO), Uganda. The objectives of the approach are to assess spatially distributed soil nutrient stocks and flows as well as soil fertility problems within a landscape. Site specific and socio-economic appropriate technologies which integrate nutrient management and soil-water conservation are identified, tested and provided to agricultural extension services for dissemination.

Landscapes in Uganda are complex, comprising smallholder farming systems with many small plots of different land use on different aspects of the slopes. Patches of land with similar nutrient stocks, flows and soil fertility problems within the landscape are expected to respond equally to integrated nutrient management and soil/water conservation practices. Groupings of such patches are defined as *Nutrient Response Units (NRU)* for which management options are developed and fine-tuned according to the socio-economic conditions of farm households. Last year a survey was carried out in over 100 communities by the ZEF-IFPRI research project on "Policies for Improved Land Management in Uganda". Community resources were mapped, farmers were interviewed and soil samples analyzed to characterize soil fertility decline and land management (see ZEF News No. 4, May 2000). Out of this community sample, two catchments have been selected for more detailed NRU modeling.

With the help of farmers a plot survey was conducted and data collected on the spatial variation of land use and land management within each catchment. The socio-economic conditions of farmers, such as available land and labor were recorded during semi-structured interviews. Farmers also guided ZEF researchers to assess their plant nutrient resources and to map the flow of nutrients on hillslopes. Soil fertility was further estimated by a systematic nested grid soil sampling scheme. The Differential Geopositioning System (DGPS) was used to construct a digital elevation model and to record plot boundaries. All data are stored in a Geographical Information System (GIS). This GIS is coupled with a mathematical model to simulate nutrient flows across the landscape. Spatial statistics and spatial modeling are then applied to demarcate Nutrient Response Units as homogenous landscape patterns.

The NRU concept is being developed jointly with a local agricultural extension agency and farmers to ensure that it can be easily adopted. This participatory approach will facilitate dissemination of integrated nutrient management technologies at catchment scale, which can be targeted both to the NRU specific needs of land as well as to the socio-economic capability of smallholder farming systems, thus stabilizing or improving soil resources of all landscapes for sustainable food production.



Gerd Rucker and Soojin Park are research fellows at ZEF, Department "Ecology and Resource Management". Henry Ssali is senior researcher at the Kawanda Agricultural Research Institute in Uganda.

Facing Ethnic Conflicts

Andreas Wimmer, Ulrike Joras
and Conrad Schetter

Today ethnic conflicts are the main root of all civil wars worldwide. What can policy and science do? A ZEF conference held in December 2000 searched for answers.

Ethnic conflicts have gained more and more public attention since the end of the Cold War. In the beginning policy-makers as well as researchers were rather helpless, confronted with increasingly erupting conflicts like in the Balkans, the Caucasus, the region of the Great Lakes, the Horn of Africa and the Southeast Asian Archipelago. In the meantime numerous explanations and concepts of intervention have been developed. Conflict prevention and management have been raised to core tasks of foreign and development policies. However, the development debate is lacking a sound basis in analysis and research and the academic discourse is missing policy relevance. Against this background ZEF organized the conference "Facing Ethnic Conflicts – Perspectives from Research and Policy-Making" in Bonn (14-16 December 2000). More than 200 international experts, researchers and policy-makers participated. The conference was co-financed by the German Federal Foreign Office.

The conference's first part addressed the rise of the ethnic question. Successful conflict prevention is increasingly gaining emphasis in the current political and academic debate. Various papers presented on the conference summarized previous experiences and approaches. The lack of political will was stressed as being an obstacle to preventing the escalation of ethnic conflicts at an early stage. *Aldo Ajello* (European Union's Special Envoy for the Great Lakes Region) and *Max van der Stoep* (OSCE High Commissioner for Minorities) called for increased consideration of human and minority rights and the enforcement of international sanctions in the pre-escalation phase.

The second part of the conference concentrated on the dynamics of escalation

and the possibilities and constraints of external intervention. Contrary to the public opinion that ethnic conflicts are outbursts of irrational hate, *Georg Elwert* (Freie Universität Berlin) pointed out that ethnic solidarity and political mobilization are driven by economic and political logics. Various strategies and tactics for intervening have been presented, covering dialogue projects (*Norbert Ropers*; Berghof Institut), tracks of negotiations (*John McDonald*; Institute for Multi-Track Diplomacy) and psychological approaches (*Vamik Volkan*; University of Virginia). However, the conference re-



Mari Fitzduff



Discussions at ZEF



Wolfgang Ischinger (left), Richard Goldstone
Photos: ZEF/M. Gloger

vealed that there is no ideal way for successful transformation of ethnic conflicts. Most participants agreed that a clear leadership structure and a common position among different intervening organizations as well as taking into account the vital interests of all conflicting parties are crucial elements for a sustainable conflict resolution.

The final part of the conference dealt with peace maintenance and long term conflict prevention. *Richard Goldstone* (Justice of the Constitutional Court of South Africa and former Prosecutor of the UN Criminal Tribunal for the Former Yugoslavia) emphasized that only the participation of all sectors of society in the process of reconciliation will guarantee stable peace. Public acknowledgement of the victims' suffering should be an essential part of all

reconciliation procedures. Different opinions prevailed with regard to the effects of introducing or reconstructing democratic institutions. Various speakers stressed that establishing a democratic society is a prerequisite for durable peace. Referring to the example of the African states *Donald Rothchild* (University of California, Davis) stressed the dangers of the implementation of democratic institutions without caution. *Michael Hechter* (University of Washington) expressed doubts with regard to federalization as a general instrument of conflict regulation. Federalism may contribute to an escalation of conflicts, if ethnic differences have already been politicized.

State-Secretary *Wolfgang Ischinger* (German Federal Foreign Office) presented a widely appreciated model for closer cooperation between foreign and development policy. *Mari Fitzduff* (INCORE) ap-

pealed for better coordination between policy-making and priority setting in research. Participants considered the conference as being a first, successful step towards bridging the gap between researchers and policy-makers. A selection of the papers presented on the conference is available on the ZEF-homepage (<http://www.zef.de>). The proceedings of the conference will be published in winter 2001.



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