



EDITORIAL

Development and violent conflict

In the world's crisis regions, efforts in favor of development are often hindered by organized violence. The recent study by the World Bank, "Breaking the Conflict Trap", recently has shown that civil wars not only cause death, injuries and psychological grief, but also lead to people's rootlessness, to the spreading of epidemics and to the collapse of social infrastructure. Moreover, the influx of refugees can become a factor of political instability in neighboring countries, thus increasing further economic and ecological tensions. Collapsing states offer a basis and pivot for drug smuggling and a potential refuge for international terror networks, which turns them into a danger for industrialized countries as well.

Against this background, analyzing structures and dynamics of violence has become an integrated aspect of development research. In recent months, ZEF was involved in this debate with several events, publications and further press and public relations work. You will find current examples of these activities, such as our workshops on the Democratic Republic of Congo and especially on Afghanistan, in this "ZEF news". ■

Tobias Debiel

The author has been working as Acting Director of ZEF's Department of "Political and Cultural Change" since April 2003.



How are those who carry out decisions involved? – A farmer in Uzbekistan.

Institutions matter

Understood as the written and unwritten rules regulating the interaction between individuals and groups, institutions create a shared understanding and raise the level of predictability of what others do. In the absence of shared rules, extra effort, time, and money have to be spent on things which otherwise could be easier, faster, and cheaper to arrange. ZEF puts increasing effort into the analysis of the complex world of institutions and development, especially with respect to issues of natural resource management, biodiversity, poverty reduction, law-making and the rule of law.

MANAGEMENT OF NATURAL RESOURCES

Property rights are crucial to resource management. They comprise rights to access, to use, or to manage a resource, to transfer it to others, and to exclude others from using it. Many countries have devolved rights over resources (e.g. forests and irrigation schemes) from the state to local communities or to user groups. ZEF studies the environmental, distributional and efficiency impacts of such devolution processes in a number of countries. Results suggest that devolution

to formal user associations which devise rules for the management of resources requires legal protection. As a member of the Water Users Association in a village in Ghana's Upper East Region said, "it is important to register the association as a formal cooperative. Then, if community members violate the rules issued by the association, we can go to the local government and ask them to prosecute the violators". Prosecution is certainly one way of making sure that institutions are adhered to. But there are other ways that need further investigation.

In Indonesia ZEF is studying logging contracts negotiated between local communities and logging companies. Preliminary results suggest that incomplete transfer of rights and poor information on the part of the communities often lead them to sell off the forest for small short-term financial benefits.

Research in Ghana and Burkina Faso has revealed that when laws regulating the management of water resources are introduced by foreign donor organizations, they may carry little meaning in local arenas where old and new authorities continue to follow their own rules.

PROTECTION OF BIODIVERSITY

In the context of a large interdisciplinary project dealing with the conservation and use of the wild populations of *Coffea arabica* (CoCE) in Ethiopia, ZEF studies regulations, decision-making mechanisms and the factors that affect decision processes at different political levels. Further policies and strategies to conserve crop genetic resources have been studied in Ethiopia taking wheat, barley, tef and sorghum as examples. The focus was on how the Institute of Biodiversity Conservation and Research (IBCR), farmers' groups and an NGO (Organic Seed Action - OSA) established contractual arrangements that facilitate farmers' compensation when opting to grow local varieties instead of improved ones. According to these arrangements, the government, through IBCR, reimburses the opportunity cost faced by the farmer as a result of planting the indigenous varieties rather than improved varieties. Through this initiative, farmer-managed community seed banks have been established and loss of traditional crop genetic resources has been reduced.

POVERTY REDUCTION

Decentralization (power devolution to local levels) is a macro strategy of institutional reform. ZEF has been assessing the impact of such a strategy on poverty reduction as well as on the provision of public goods and services, e.g. in Ghana and rural Russia. The findings indicate that political, administrative and fiscal measures of decentralization need to be simultaneously considered. Decentralization will not benefit the rural poor if it isolates rural areas from urban and peri-urban growth centers. Children in poverty will not enjoy any advantages from decentralization if it undercuts the capacity of large-scale child nutrition programs. In general, our results show that the overall institutional framework and the sequencing and pace of reforms matter.

LAW-MAKING AND RULE OF LAW

Realizing that an institutional arrangement is malfunctioning does not automatically translate into smooth institutional change. As a desperate NGO activist in an Arab country said "those benefiting from the status quo will resist; those losing may be too weak to change things". In cooperation with local universities, ZEF analyses the process of law-making in the case of legal reform of existing



Fieldwork is indispensable to getting a complete research picture. Here, it is being done in Ghana.

laws to make them more investment and trade friendly. ZEF's research looks into the law-making process in Morocco, Egypt and Jordan, highlighting the dynamics of stakeholder participation, information sharing, and coordination with parliaments and ministries. Many developing countries are facing various challenges of transformation – among them building the institutional foundations for a new administrative system. For example, one dimension of ZEF's research in Ghana, Burkina Faso and Uzbekistan deals with the phenomena of laws that are adopted but not implemented and selective and/or slow enforcement of laws, both of which often reduce or delay the benefits of institutional reform. Another challenge confronting developing countries is that of creating efficient and competent courts. Studying the problem of court congestion, ZEF uses data in lower courts collected across Indian states to determine the most important factors influencing delays and backlogs. We are also assessing the impact of a malfunctioning enforcement system on the poor. Based on an individual survey conducted by ZEF, we are examining whether the poor are less (or more) likely to use the formal judiciary, and once they are in the system, what their odds of winning a trial are.

INSTITUTIONAL ALIGNMENT

Some argue that institutions may conflict with one another, thus hindering development. The Aral Sea project in Uzbekistan provides indications about the ineffectiveness of the introduction of incentives to save water or to privatize small farms while unchallenged features of a planned economy persist; this seems to create uncertainty and stifle innovation.

In Ghanaian irrigation schemes, ZEF's research has revealed that conflicts emerge because decisions on the distribution of irrigated land often remain with traditional authorities after being officially devolved to newly formed Water Users Associations. In the Volta river basin, ZEF is investigating the relationship between official resource management policies and local regimes of resource management. Preliminary results seem to indicate that where legal pluralism prevails and local conventions are no more than ad hoc negotiable arrangements,

sustainable and effective resource management seem unlikely.

It is necessary to identify institutions which support sustainable management at local level. Research in India indicates that institutional innovation should not come indiscriminately at the cost of local institutions. The formation of new Forest Protection Councils under Joint Forest Management has sometimes led to the breakdown of well functioning traditional management systems. Extending the argument to the household level, ongoing research in Tanzania is testing the hypothesis that poverty reduction requires institutions that target the balance of power affecting distribution of resources inside households.

OUTLOOK

More needs to be done to explain the impact of institutions on poverty reduction as well as on national resource management and to understand the dynamics of institutional change. Furthermore, studying the interactions between the national, the local and the household levels, ZEF hopes to shed more light on issues of law enforcement and legitimacy.

The field of institutional analysis comprises a wide range of conceptual frames involving perspectives from economics, sociology, political science and legal studies. This variety is reflected in the diversity of our approaches, which will be illustrated by different cases from selected ZEF projects in the next newsletter issues. ■

Contributors: Stefanie Engel, Noha El-Mikawy, Veronika Fuest, Ulrike Grote, Bettina Hedden-Dunkhorst, John Mburu, Maja Micevska, Anja Schoeller-Schletter, Holger Seebens.

GLOWA Volta Project enters its second phase

Global change research is to enhance our knowledge of the causes and effects of global changes, thereby providing a scientific basis for sustainable management of ecosystems and societies. As a major contribution to the development of our knowledge of global change, the German Federal Ministry of Education and Research (BMBF) launched "Research for the Environment" in 2000, a strategy to support a policy for worldwide sustainable development. The 'Global Change and Water Availability' Program (GLOWA) is the first of four programs that make up "Research for the Environment".

The aim of GLOWA is to develop integrated



Fishermen in the Volta Basin.

strategies for sustainable and far-sighted management of water, lakes and rivers at the regional level, taking account of ecosystem contexts and the socio-economic framework.

GLOWA VOLTA

The GLOWA Volta project is one of four pilot studies in the framework of the GLOWA program and is led by the University of Bonn's Center for Development Research (ZEF). Following a very positive scientific review of the project results during its first phase (2000-2003), BMBF has approved funding for the second phase of the GLOWA Volta Project, which started on June 1 2003 and will last until end 2006. This is the first project of the GLOWA program to start in its second phase.

THE SCIENTIFIC APPROACH

The principal objective of GLOWA Volta is the development of a scientifically sound Decision Support System (DSS) for the assessment, sustainable use and development of water resources in the Volta Basin.

To reach this objective, predictions of both water demand and water supply throughout the basin are required. Since both water demand and supply are dependent on the socio-economic development of the region, it is necessary to analyze and model not only the physical environment but society as well.

THE SECOND PHASE

The project was rather successful in its first phase in applying innovative methods such as the use of scintillometers to bridge the scale gap between hydrology and meteorology, design of a common sampling frame for data gathering by social and environmental scientists, and the incorporation of hydrological, economical, and institutional analysis for water use optimization. In the second phase there will be a clear shift from proving the feasibility of these new concepts to practical applications. The strategic goals of the second phase are technical integration and delivery of a prototype DSS. This prototype will be developed in close cooperation with the Ghanaian Water Resources Commission, which recently initiated a pilot watershed management project for the White Volta Basin in which the DSS will be tested.

The second phase will show an extension of the project from Ghana into Burkina Faso, with ground-based observations, surveys, remote sensing, and modeling. International scientific partnerships such as with Heidelberg University, IMK-IFU (Institute for Meteorology and Climate Research), Garmisch Partenkirchen in Germany, INERA (Institut de l'Environnement et de Recherches Agricoles) in Burkina Faso, ISSER (Institute of Statistical, Social and Economic Research) of the University of Ghana, IWMI (International Water Management Institute), Subregional Office in Ghana, SARI (Savanna Agricultural Research Institute) in Ghana, Wageningen University, the Netherlands and WRI (Water Research Institute), Ghana are being continued. The Meteorological Services Department of Ghana and Würzburg University are new partners. ■ Nick van der Giesen

The author is a senior researcher at ZEF and project officer of the GLOWA Volta project.

For further information, look into the homepage of the project: www.glowa-volta.de.

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- Wolf, S.: "Private Sector Development and Competitiveness in Ghana", DP No. 70, May 2003.
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- Wimmer, A.: "Democracy and Ethno-Religious Conflict in Iraq", DP 72, August 2003.

Perils and opportunities for state reconstruction in Afghanistan

The most important elements of state reconstruction are providing security, establishing a fiscal basis for the state and a working financial system, rebuilding political organizations and institutions as well as re-establishing a legal system. These were the central assumptions of intensive discussions during an international symposium on "State Reconstruction and International Engagement in Afghanistan", held at ZEF in Bonn in May 2003. The symposium was jointly organized by ZEF and the Crisis States Programme of the London School of Economics and Political Science (LSE).

Regarding the issue of central state power, the participants concluded that the still restricted outreach of the current government of Afghanistan is set up against the supremacy of several regional and local power holders whose income is extracted from Afghanistan's war economy. Moreover, this income surpasses donors' aid to the central government by far. So, it was recommended that international aid should be provided to the central government in higher quantities and, via the central government, be distributed not only in Kabul, but throughout the whole country. However, exclusivity of donor aid for the central government does not mean that all regional warlords should be sidelined; rather, positive incentives such as offering jobs and including them in public offices should be created to ensure their cooperation in the consolidation of the peace process.

As a result of the discussion about establishing a central fiscal basis, it was agreed that a quick and sound rebuilding of the fiscal system should be at the core of international economic assistance programs. Redistribution of fiscal revenues to the regions would subsequently provide the central government with more authority. A part of the discussion on a future financial system dealt with the Hawala money-change system. Rather than considering a replacement of the Hawala system with regular banks, the IMF has adopted an innovative approach and for the first time accepted an informal payment system.

The panel on security provision drew attention to the fact that although security is a precondition for any sustainable development in Afghanistan, the international community's involvement in the deployment of Provincial Reconstruction Teams as well as in demobilization, disarmament and reintegration



Panel members discussing at the ZEF/LSE Conference.

(DDR) processes is only half-hearted. The channeling of resources into DDR remains useless as long as the influx of weapons into the country is not stopped and no alternative sources of employment exist for militia members who want to lay down their arms.

Members of the panel on the re-establishment of a legal system discussed the design and procedures governing a new Afghan constitution, the Islamic characteristics of existing legal systems, access of marginalized groups to legal protection and the capacity for coming to terms with the country's past. The legacy of the war and the Afghan people's demand for justice require international assistance in the national reconciliation process. Otherwise the new legal system could be de-legitimized right from the start. Participants opined that exclusion of religion from the political agenda by any future government was infeasible, although a reform via a reinterpretation of Islamic law was seen as achievable. In the discussion about the inclusion of women in the emerging legal system, arguments deriving from Islam itself could be used when justifying gender equality. Anyhow, the new system will have to counter the common feeling among Afghan women that their newly gained liberties are only temporary.

While the symposium's participants differed over the authenticity of existing ethnic tensions in the current Afghan context, they concurred that manipulation in this regard by

political actors was possible. There are prospects of creating organizations beyond the lines of ethnicity through the planned elections in 2004. But too rash a procedure could create new violent conflicts instead of consolidating existing peaceful settlements. If the necessary logistical framework is not in place and international donors do not provide financial resources, the upcoming elections should not be expected to be free and fair or conform to international standards. The participants warned that quick elections as a convenient way out for donors had already proven to be futile in other recent post-war and transition processes where elections were promoted prematurely. The tight reconstruction schedule agreed on at the Petersburg conference seems to be at the root of many of the problems Afghanistan is currently struggling to cope with. Stable institutions, attention to political culture and equitable access to resources are not yet a reality in Afghanistan, where the state only exists thanks to strong international backing.

Throughout the symposium, the need for further research was repeatedly underlined. With field work all but impossible during the last 20 years, a lack of detailed knowledge has already led to politically influential, yet premature or even overly generalized consultancy reports. The effects of war on authority structures at local level and its influence on traditional dispute resolution mechanisms were seen as crucial research themes in the

context of the ongoing process of state building. Another topic not yet looked into any further is research on non-classical gender issues, e.g. communications, energy or the relationship of Afghan women to Islam. Moreover, the participants called for a rethinking of misleading categories commonly used in scientific and political contexts such 'radicals', 'conservatives', or 'Taliban'. And they regarded translations of research results into Farsi and Pashtun and a systematic support for research capacity building in Afghanistan as indispensable elements of the country's state reconstruction process. ■

Stefanie Elbern

Stefanie Elbern is a junior researcher at ZEF

A report on the symposium and all papers presented at the symposium are available at: www.afghanistan-rg.de.vu/arp.

Why the Giant Panda died out in Central China

When the first human beings had only just learnt how to walk upright, the footprints of the Giant Panda could already be found almost all over China. By 1800, Giant Pandas probably occurred mainly on the Tibetan plateau in Western China, and in Central China. However, by 1900, the Giant Panda had become extinct in Central China.

A study at ZEF – conducted in cooperation with the University of Bonn's Institute of Botany – is pursuing an answer to why the Giant Panda became extinct in Central China by studying the relationship between the Panda and the availability of its staple food in a historical panda habitat, the Shennongjia National Nature Reserve (SNNR).

The Giant Panda is a highly specialized carnivore whose diet, however, consists almost entirely of bamboo. In SNNR, arrow bamboo and umbrella bamboo constitute the panda's staple food. ZEF's findings show that the bamboo available in this region could feed about 200 Giant Pandas.

However, the availability of bamboo is affected by its flowering behavior, as most species flower simultaneously and subsequently die back. In the late 19th century, the three bamboo species in SNNR preferred by the Giant Panda flowered and died back over a period of less than ten years. Since the pandas had to move to a region where bamboo had not yet flowered, most pandas moved to habitats in the west (Sichuan). However, by the end of the 19th century, this route no longer existed due to expanding settlements and a growing human population in the Sichuan basin. Consequently, when all relevant bamboo species died, starvation might have led to the extinction of the Giant Pandas in Shennongjia. Given the widespread simultaneous dieback of bamboo after flowering, reintroducing the Giant Panda to this isolated reserve would be risky. ■

Zhaohua Li and Manfred Denich

Zhaohua Li recently completed his doctoral studies at ZEF. Manfred Denich, a senior scientist at ZEF, supervised the study.

FACTS & NEWS

■■■ From 1-3 March 2004, the international conference "North-South Analysis of Global Change Impact on Watersheds" will be held in Bonn, Germany. The conference is being organized by ZEF, UNESCO, HELP, GWaSP, IAHS, IHP-Germany, and BMBF. For more information, please go to <http://www.zef.de/watershed2004>.

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■■■ Mr. Jens Liebe won the 2003 "Hans H. Ruthenberg Award" of the Eiselen Foundation for his thesis "Estimation of Water Storage Capacity and Evaporation Losses of Small Reservoirs in the Upper East Region of Ghana". The research was part of the GLOWA Volta Project. The award recognizes the best Master thesis published in Switzerland, Austria, or Germany that addresses development of farming and reduction of hunger in the world.

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■■■ The German Federal Ministry of Education and Science (BMBF) is organizing an International Symposium on Biodiversity, ti-

tled "Sustainable use and conservation of biological diversity". It will take place in Berlin, at the House of World Cultures, on December 1-4, 2003. The registration deadline is October 15, 2003. More information is available on the homepage: www.biodiversity-symposium.de.

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■■■ Dr. Abay Asfaw has won the "Theodor Brinkmann Prize" of the Agricultural Faculty of Bonn University for the best dissertation of the year. The dissertation was titled "Costs of Illness, the Demand for Medical Care, and the Prospect of Community Health Insurance Schemes in the Rural Areas of Ethiopia".

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■■■ ZEF organized a roundtable discussion with Dr. Nader Fergany, lead author of the Arab Human Development Report, on July 2, 2003. The event was well attended by representatives of NGOs, science and governmental administration and the discussion about research needs in the Arab region was fruitful and constructive.

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■■■ A partnership formed between Maja Micevska of ZEF (as a Western expert), Budapest Economics (a Hungarian think tank that focuses on applied policy analysis) and the Center for Fiscal Policy (Russia) has been awarded a grant by the Think Tanks Partnership Program (TTPP) of USAID. The partnership will work on the project: "Comparison of Government Revenue Structure and Major Spending Targets in Russia and Hungary".

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■■■ Ulrike Grote won the Schultz Award for the best paper contributed at the 25th International Conference of the Agricultural Economists Association, which met in Durban, South Africa, on August 22, 2003. The paper was co-authored with Nancy H. Chau and Arnab K. Basu from the USA. The title is "On Export Rivalry and the Greening of Agriculture: The Role of Eco-Labels". At the same conference, Matin Quaim won the Nils Westermarck Award for the best poster on "Bt Cotton in India: Field Trial Results and Economic Projections".

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Viewpoint

Tropical forests provide environmental and economic services that are important for local, regional, and international communities, not only for current but also for future generations. Stephen Vosti (Associate Adjunct Professor, University of California, and ZEF Senior Fellow) has worked extensively on sustainable land use systems in the Brazilian Amazon Region. The following interview reflects his opinion on what needs to be done to conserve forest services, particularly those related to biodiversity.

ZEF: The discussion on saving tropical forests has been going on for quite some time. The Rio Conference in 1992 set an important milestone in this respect. However, progress is limited. Why is this the case?

Stephen Vosti: It is logical to expect that each group in society, from local to international level, will primarily be interested in the services that forests provide to them. Hence, local groups are generally most interested in the environmental and other forest services that help them meet their livelihood security needs, while at the other extreme, the international community will be less interested in (say) watershed services and more interested in biodiversity and carbon sequestration. Conflicts of interest can and do arise when groups of consumers put a different value on different ecosystem services, especially when consumption of one service reduces the availability of other services. For example, it is quite common for local consumers to highly value the timber or food products contained in forests and the soils provided for agriculture when forests are converted to this purpose. However, from the point of view of international consumers, forests are a globally scarce resource and should be conserved for the biodiversity and other services they provide. It is important to note that consumers of these environmental services, be they local or international consumers, pay very little for them – indeed, the ‘price’ paid for these services is often quite close to zero, which generally leads to their overuse.

ZEF: What can be done to slow down the loss of biodiversity in tropical forests and, in particular, what is the role of the international community?

Stephen Vosti: There is quite a lot that can be done, but it is crucial to realize that all policy action aimed at conserving biodiver-



Stephen Vosti and his new generation.

sity will come at some cost, and some groups of consumers of environmental services are more willing and able to pay these costs than others. An immediate response from the international community is to ‘rope off’ areas where biodiversity concentrations are expected to be especially high and globally unique. The mechanism for setting aside such areas is generally via their designation as national parks. This can be and has been an effective way to protect biodiversity, but again, the process is costly. Apart from operating and maintenance costs, opportunity costs arise that are associated with excluding large areas of forested land from use in meeting food and other needs. Many of these costs would need to be covered by the international community. There are, of course, other ways of conserving biodiversity that do not require ‘roping off’ large areas of forested land; among them are the identification and management of mosaics of forested and cultivated land that can provide habitats for plants and animals and still provide land for agriculture. But again, establishing these land use mosaics can be expensive, both in terms of the out-

of or Fellow) has worked extensively on sustainable land use systems in the Brazilian Amazon Region. The following interview reflects his opinion on what needs to be done to conserve forest services, particularly those related to biodiversity.

pocket costs and the opportunity costs. Moreover, this policy option also requires that a set of effective incentives (and disincentives!) be provided to land users – these incentive packages are not easy to develop and are generally expensive to monitor and enforce. The international policy and scientific communities have roles to play in the development, testing and implementation of these incentive packages.

ZEF: What do you think is the role of science in assisting policymakers at different levels to conserve biodiversity?

Stephen Vosti: Huge gaps in our knowledge remain about what biodiversity is, where it is located, and what its value is today (and in future) to the local, regional and international groups that consume it. Much work needs to be done by members of the ‘hard science’ community in addressing the first two sets of issues, and by social scientists in addressing the last issue. Most important of all, though, is that policymakers at all levels need guidance on how to use the policy instruments available to them to conserve biodiversity in an effective and efficient manner. For example, the international community is experimenting with different ways of compensating local governments and even farmers for using their land and forests in ways that conserve more biodiversity and carbon. However, little is known about the willingness and ability of farmers, especially small-scale farmers, to respond to these new financial incentives. Addressing these and many other issues related to biodiversity conservation in forests is an inherently interdisciplinary undertaking and one that requires large and sustained international support. ■

Bettina Hedden-Dunkhorst of ZEF conducted the interview.

Traditional style, modern science: ZEF's new project building in Uzbekistan

If everyone who came to study the Aral Sea had brought a bucket of water, the sea would be full by now,” has become the local population’s favorite punch-line when commenting on research activities in Central Asia’s Aral Sea region. But ZEF and UNESCO have not brought water. Instead, they have erected a brand new building with ample laboratory and office space for the joint German-Uzbek project on land and water-use efficiency in the Aral Sea Basin.

Guided by the motto “Think Globally but Act Locally”, the ZEF/UNESCO program aims at introducing ecologically feasible and economically sustainable patterns of land and water use, thus helping to combat desertification in the region on the basis of scientific research that integrates natural resource management, economy and social science.

The new building is on the campus of the State University of Urgench, the capital of Khorezm Province in Uzbekistan. Khorezm comprises an area of 630,000 hectares of irrigated land on the Amu Darya River, one of the tributaries to the Aral Sea. The building has been made out of an old workshop hall handed over to the pro-

ject by the University, and with funds donated by the German Federal Ministry of Education and Research (BMBF) and by ZEF.

The new building, designed by UNESCO architects, features a traditional-style external vista: a central wooden portico is supported by four richly carved wooden pillars that reflect the centuries-old tradition of Khorezmian architecture. The outer walls are finished in the golden-yellowish color of the sands of the surrounding Karakum desert, and the dust and heat is kept out of the rooms by traditionally crafted blinds – so-called panjaras, hand-made out of glazed and unglazed ceramics.

Inside, however, the 680-square-meter building contains five large modern lab rooms (plant and soil lab, soil physics and chemical



Uzbek dancers at the inauguration ceremony.

lab, GIS lab), 14 offices for staff and PhD students, a large meeting and lecture room, a library, a kitchen and a cafeteria. When fully equipped with modern equipment for analysis – which is expected for the next project phase starting 2004 – the building will house the best-equipped scientific labs in the region.

Khorezm is an ancient cultural heritage region, of which Al-Khorezmi, the ninth-century mathematician to which the term algorithm dates back, is only one of the most prominent examples. Thus, by allusions to the traditional architectural style in its new building, the project reminisces not only the old scientific tradition of the Islamic world but also hopes to set the signal that should ultimately bring together the best of the old and the new, the

East and the West, in a multi-national, multidisciplinary, long-term research project dedicated to the development of sustainable of land and water use in the Aral Sea Basin, and to human capacity building in the region, so that in the future the local people themselves will once again be able to take care of their water needs. ■

Christopher Martius and John Lamers

Christopher Martius and John Lamers are senior researchers at ZEF.

How to deal with Africa's war economies?

How can current war economies in crisis states like Angola and the Democratic Republic of Congo (DR Congo) be channeled properly into peaceful and democratic ways?

This question was discussed at the workshop “Structures of Violence,” organized by ZEF in cooperation with the Bonn International Center for Conversion (BICC) in June 2003.

“In order to be able to cut the ground from under the war-mongers’ feet, who get their funds from the so-called war economies, we need an integrated development and security strategy,” stated Tobias Debiel of ZEF. “It is possible to denounce the illegal exploitation of raw materials through international mechanisms,” Debiel explained. “In the case of diamonds, this policy on dealing with rebels has proven to be successful to a certain extent in Sierra Leone and Angola. Furthermore, we need to make governments accountable. In the case of Angola, for example, the gov-

erning elite has been financing itself through trading with oil and weapons for several decades. In such circumstances, international aid is more than questionable.”

The war economy of the DR Congo was mentioned as a “prime example” of an economy based on the so-called new wars. A strong and active participation of warlords and private military companies is characteristic of this type of economy. A further distinguishing mark of such war economies is that the belligerent parties are using natural resources as a financial source for their warfare.

An appeal from among the participants was that the international community should not only try to influence the violent actions of the rebel groups but also put pressure on the neighboring states. In the case of the DR Congo, it was considered as imperative to induce Ruanda’s and Uganda’s governments to stop interfering in the Congolese civil war. More-

over, it was indispensable that warring parties be stopped from having the say within their countries, and that only those states that allowed civil rights groups to play a role in the political arena and that strengthened an independent judicial system were in a position to receive international support.

A further discussion topic related to the potential correlation between war economies, failure of the state and globalization. Some of the participants claimed that more pressure should be put on international banks in order to force them to create more openness concerning their international money transfers. By doing this, the responsible war entrepreneurs could be deprived of the financial resources for performing their violent conflicts.

This text is an excerpt from a press release launched on the occasion of the workshop. ■

At a glance

■■■ The new International Project Office of the "Global Water Systems Project" has been located at the Center for Development Research (ZEF) of the University of Bonn since July 1, 2003. The "Global Water Systems Project" is a joint interdisciplinary initiative of the following four international research programs on global environmental change: the "International Geosphere-Biosphere Programme", the "International Human Dimensions Programme on Global Environmental Change" (IHDP), whose secretariat is already located in Bonn, the "World Climate Research Programme" and the research program on biodiversity, "DIVERSITAS". With funding from the German Federal (BMBF) as well as the North Rhine-Westphalian Ministries of Science and Education, the office will coordinate worldwide efforts in research on understanding the water cycle and the ways and means in which it is influenced by human activity. The office will strengthen the Bonn/Cologne region in its role as a center of excellence in water-related research and will provide an excellent context for the German funded Global Change and Water Availability (Glowa) Projects, two of which are already being coordinated within the region.

■■■ ZEF hosted a workshop on "Human Rights, Development, and the Private Sector: Who carries responsibility and how?" on May 27, 2003. Among the participants were staff members of United Nations Volunteers (UNV) in Bonn. The aim of the workshop was to fathom the potential mutual stimulation arising out of both ongoing and new projects on human rights, development and the private business sector at ZEF and UNV. One of the conclusions was that a new consensus is being ironed out around the world: Business is increasingly being held responsible for human rights. This phenomenon will require future research by academic research institutions like ZEF and close attention by development organizations such as UNV.



Honey for money: How to improve beekeeping in Kenya

Beekeeping is considered a viable economic activity for people in regions with marginal crop farming potential. One such area is Baringo District in Kenya. The southern region of this district is inhabited by the Tugen people who lead a predominantly pastoralist lifestyle but also practice beekeeping. The area is a well-known source of hive products, and beekeeping is ranked second as an income-generating activity in Kenya. This district was selected as a representative area for a ZEF study on the impact of a national beekeeping development program that the Kenyan Ministry of Agriculture started 50 years ago. Out of 750 beekeepers listed, 224 were interviewed on the basis of a questionnaire.

In spite of government efforts to promote the use of modern, more efficient beekeeping equipment, 90% of those interviewed still use traditional log hives and accessories. This was partly due to the fact that beekeepers face problems in handling poorly manufactured hives and therefore resort to the traditional tools to which they are accustomed.

The survey further revealed that honey mostly reaches the market as a crude product in the form of crushed honeycombs, sold by the beekeepers to middlemen in local markets. Most of it is utilized as food and medicine, or exchanged as a gift on special occasions, while some of it is directed into beer brewing. Wax is mostly discarded as waste. For hive products to penetrate alternative external markets, they would have to comply with international standards. Improved processing facilities are therefore urgently needed. In the past, beekeepers' cooperatives maintained collection centers where high quality processing was undertaken. However, due to poor

management skills, many such cooperatives have collapsed. It would therefore be advisable in future for cooperative managers to be trained in basic business skills.

The beekeepers' situation is aggravated by poor road and telecommunication infrastructure as well as government budgetary constraints that prevent close contact between beekeepers and extension agents. In this regard, the extension model that the Catholic Church employs through its Agricultural Development Programme seems more appropriate. In every parish, it deploys grassroots staff who train local people in all areas of agriculture, including beekeeping. As beekeepers are generally very keen to upgrade their technology and production methods, it would be cost effective to train beekeepers in modern management methods under local conditions.

This case study showed that beekeepers in Baringo do not fit in well with the overall national picture of a modern beekeeping industry in Kenya. To correct such discrepancies, more in-depth studies of regional peculiarities will be needed in which the beekeepers should be involved as the most important stakeholders. Only by looking at beekeeping technologies and at socio-economic issues at the same time will hive production be increased and marketing improved for each situation. ■

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