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More science for development

The key role that science can play in enhancing opportunities and reducing societal risks remains undervalued in developing countries and in international development policy. Developing countries need to strategically re-position their national science policy with its international dimensions. Steps must be taken to step up the integration of the developing world into global science communities. Emerging economies like China, India or Brazil have already succeeded here, but many others have not. African nations recognize the role of science but lack the necessary resources. The nations undergoing rapid transformation in the Middle East will demand more science cooperation with Europe and deserve this cooperation. The young populations of these countries can be targeted by better career opportunities in science. This calls for the following policies and measures:

- Developing countries need support to create their own strong science systems and establish a science environment based on performance and scientific integrity.
- Developed countries need to provide access to basic research.
- International scientific partnerships need to be expanded.
- Foundations and private enterprise can play an important role in science policy alongside public institutions.

Strategic innovations such as “Green Growth”, the bio-economy, sustainable cities and mobility can only be achieved globally by strengthening the science landscapes in developing countries.

J. von Braun

Joachim von Braun
ZEF Executive Director



Commodity price volatility and the poor – A new research program at ZEF

The volatile and rapidly rising commodity prices of recent years are an expression of changes in global markets and of resource scarcity in our world of seven billion people with increased wealth. Although food grains are mainly viewed as commodities, they are also the basic food of the poor and the “currency” of the bottom two billion people, who spend large shares of their income on them. The high increase in food prices means particularly high inflation rates for the poor who are

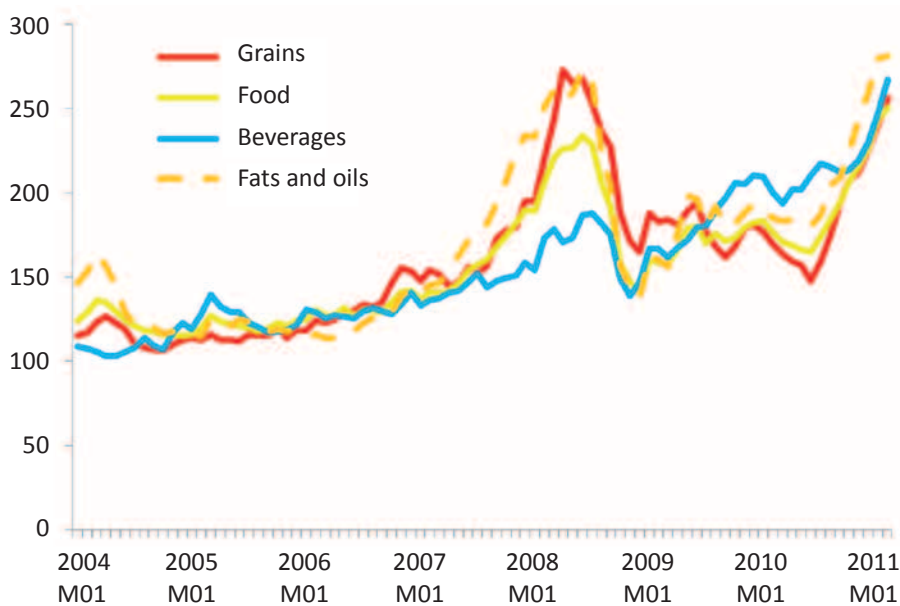


Extreme rise in food prices increases poverty.

obliged to spend 60 percent of their income on food. Volatility means increased uncertainty, which is bad for investment, and again, it is worst of all for small businesses which lack access to finance. Moreover, commodity price volatility impairs the growth and development of import-dependent low income countries.

Faced with rising food insecurity, social unrest and accelerated inflation driven partly by food prices, developing and developed countries as well as international governmental and non-governmental organizations have begun responding to this problem. The price crises of

Figure 1: Monthly food price indices (Source: World Bank)



2008 and 2011 have been met with some policy changes, but the sense of urgency about preventing human suffering has not yet been translated into comprehensive action on both the supply and demand sides of the world food equation. All food commodity prices currently remain above the long-term average. Credible models that factor in climate change show a doubling of food prices in coming decades.

Development policy is challenged to assist in addressing both the apparent upward price trend and the problem of price volatility. The volatility that we are now experiencing is extreme. The 2008 food price crisis has turned into a double spike of prices in 2011 (Fig 1). Furthermore, current developments go beyond the food sector and are part of a broader commodity boom, including energy. They cannot simply be explained by market fundamentals, but are also increasingly linked to financial markets.

The adverse effects of rising and volatile food prices are reflected in a number of ways

First, the extreme rise in food prices undermines health and nutrition and increases poverty. It has pushed an estimated 68 million people into poverty and pulled 24 million people out of poverty; a net increase of 44 million poor people in recent years. Second, a fast rise in food prices associated with an increase in volatility is harmful to both producers and consumers. Volatility causes asset drawdown and indebtedness on the part of poor consumers. It also induces risks that discourage business, traders and farmers

from investing. Third, there are political risks. Political protests are more likely since the use of cell phones and the new media means that the poor, who are disproportionately affected by price spikes, are also increasingly well-informed. The 2008 food crisis was accompanied by riots in about 40 countries, ranging from Bangladesh to Haiti. The recent uprisings in the Middle East and North Africa also have some links with rising food prices.

In the long run, the basic remedy for price volatility is increased investment and productivity

Development policy has a key role to play in this area. If high output prices last they can create incentives for investment. Many

people believe that this could be an important opportunity for smallholders. High prices encourage not only existing farmers but also attract new agricultural investors from

Elderly woman shopping for food, Colombia.



both in and outside the country. However, institutional and structural bottlenecks may limit such smooth supply response. For instance, as land prices rise due to expected higher output prices and the demand for safe investments, land grabbing emerges in environments with ill-defined property rights and limited rule of law. Sound policy environments are needed to deal with this because, after all, the food sector in the developing world needs a lot more capital investment to grow, and the private sector is crucial to overcoming the food security problem.

Speculation means taking large risk in the hope of making large and quick gains

Speculation in organized commodity markets works through future trading by commercial and non-commercial actors. Informed speculation on future markets provides the market with liquidity and facilitates price discovery and thereby stabilizes prices.

However, the market includes various actors who partly follow emotions, trends and a herd mentality. Market actors may start to behave differently when market risks are up – for instance when stocks get low, exports are banned, and policy-induced demand is accelerated, for example in the field of biofuels. Such behavioral change produces a different market from the one determined by market fundamentals. Behavioral patterns triggered by changing fundamentals may create a *tipping point* in price movements, above which markets experience extreme spikes.

New research agenda to reduce volatility and improve food security

Sound policy requires a clear understanding of the causes and impacts of volatility. Related research for evidence-based policy advice is needed and ZEF will focus on:

1. *Improved monitoring of information and development of sound short-term global food models linked with other commodities and economic domains:* such models are missing and could be used to provide alerts on spikes and hunger, assisting governments and business.



The poorest people in the world spend up to 60 percent of their income on food.

2. *International policy coordination on physical and virtual food reserve policies and on trade:* There is intense debate on the relative importance and feasibility of proposed instruments to reduce volatility – including the debate by the G20 group this year.
3. *Analysis of commodity future markets:* Food security is increasingly linked with derivative markets. Understanding these inter-linkages needs to become part of sound, market-oriented development economics.
4. *Improved competitiveness of local food and resource markets:* Developing countries not only face fundamental changes and volatility from international markets, but also imperfections in local markets.
5. *Effectiveness and constraints of safety net programs that protect the poor:* Many food security programs have been implemented. However, still too little is known about their efficiency in coping with price volatility.

A new three-year research program at ZEF – funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) – will address these issues in new ways and will strengthen the evidence base for development policy and for public and private actors.



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Viewpoint

“Risk and vulnerability research will continue to demand our resources.”

Interview with the new Director of the UNU in Bonn, Dr. Jakob Rhyner.



Dear Mr. Rhyner, what course are you going to set during your coming tenure as Director of UNU in Bonn?

In general we'll continue to work on environmental risks – induced by humans and nature. We've gone a long way in the field of risk and vulnerability analysis but there is still much left to do. Migration remains an issue for us too. We should not consider this a threat we cannot influence, but rather search for options on how to convert this development in a deliberate and internationally coordinated way into a policy. There remains a lot to be done in this respect.

In recent years huge investments have been made in early warning systems. On the other hand, natural disasters remain difficult to predict. How important is this subject going to be in the future, also taking into account what happened in Japan?

There are two reasons why this subject continues to be important: The first one is technological progress in communication and sensor technology. Data for early warning is to be collected and sent to the right places as fast as possible. Technology opens up new possibilities but also poses a risk such as an information-overkill for the population and the people in charge.

Another question is the cost-value ratio: In terms of an overall risk, and a cost-benefit analysis, warning systems are useful when implemented properly. Of course, warnings can turn out to be wrong and you cannot reduce the risk to zero. Projections remain projections. In Japan the earthquake and the tsunami happened with such speed that the systems were completely overstrained. The warnings that were given were not timely enough to take respective measures.

What should have been done differently?

You could not have warned early enough because you cannot vacate the area within fifteen minutes. If the epicenter had been located six times further away, it would have been enough. With this in mind you have to ask yourself how much it would cost you to be able to handle how many incidents. Regarding warning systems, you are always wiser after an incident than before. In Japan they can now work on improvements.

After the tsunami in 2006, huge investments were made in early warning systems in Indonesia—what impact has this had?

Yes – improved sensor and communication technology was developed, aiming at extending the time for giving advance warning and at rapid dissemination. Finally, the so-called “last mile” is an important issue: People have to know that there are warnings and how they have to respond to them. The German-Indonesia warning project is operational now. A follow-up project is dealing with the issue of the “last mile”, which requires a lot of extra efforts.

Jakob Rhyner – Short CV

Jakob Rhyner was born in 1958 in Glarus, Switzerland. He holds a PhD and diploma in theoretical physics from ETH Zurich. Dr. Rhyner is a member of numerous professional organizations and boards such as the Experts Natural Hazards Switzerland since 2001, the Swiss Physical Society since 1986, and research project evaluation boards of the European Commission since 2006. He has wide-ranging international experience, including working as guest scientist at L.D. Landau Institute of Theoretical Physics in Moscow, Former Soviet Union (1986), visiting scientist at Massachusetts Institute of Technology in the USA (1990–91) and scientific advisor at ABB Kabeldon in Alingsas, Sweden (1996–97). In November 2010, he was appointed Vice-Rector of the United Nations University (UNU) and Director of the UNU (Institute for Environment and Human Security) in Bonn. Prior to joining UNU-EHS, Dr. Rhyner served as head of the Institute for Snow and Avalanche Research (SLF) and its research unit "Warning and Prevention" in Davos, Switzerland. He is also a member of the Directorial Board of the Swiss Federal Institute for Forest, Snow and Landscape (WSL), to which SLF belongs. At SLF, he has been involved in the area of natural hazards safety since 2001.

But there are also other catastrophes, the so-called creeping disasters?

Yes, up to now we have talked about so-called abrupt processes and major catastrophes. For the future we will be facing more creeping processes, e.g. linked to salinization and desertification. In case of a tsunami you have to respond immediately. But with slow-going phenomena such as urbanization and desertification it is not so easy to react accordingly. It is a matter for politics how to act in these cases. Researchers are able to project what is going to happen within the next thirty years. However, it is a normative question if and when you should act and which measures have to be taken. The question of warning systems and cost-benefit ratio is, of course, more difficult regarding the issue of climate change.

What role does interdisciplinarity play in your work?

Interdisciplinarity is very important but often misused as a label. To speak heretically: If you have got a research project that does not work out well you can always say “we work in many fields”.

If you conduct product-oriented work in science, working in an interdisciplinary way is more or less a precondition. In the field of early warning, it is of course

not enough to be an expert in sensor technology or earthquake modeling. The sociological factors regarding the “last mile” have also to be taken into account.

Single discipline, top-level research will continue to be important since disciplinary researchers push processes that can be useful in interdisciplinary projects later on. So disaster warning systems are using a great deal of research outcome that has been developed by people conducting “narrow-minded” research

What will the long-term cooperation between UNU and ZEF look like in the near future?

Cooperation with ZEF is very good indeed. We are working together successfully in interdisciplinary projects such as WISDOM in Vietnam and I hope that more such projects will follow in the future. The lecture series on “Risk and Uncertainty” is another example of successful cooperation. Nevertheless, we could do more in terms of synchronizing our strategies and using synergies more effectively.

Mr. Rhyner, thank you very much for this interview. The interview was conducted by Alma van der Veen and Sebastian Eckert, ZEF.

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Context Analyses. ZEF at the interface of research and development practice

During the past two decades, natural disasters, crises and political upheavals around the globe have created an increased need for instant emergency response, humanitarian relief projects, and subsequent reconstruction aid. In many cases, only scarce information is available about the regions where such interventions are carried out. Aid and development organizations often find themselves in situations where it is hard to assess the various risks related to an intervention, as well as the general security situation.



Social, cultural and economic factors have to be considered in aid projects.

Moreover, many of these organizations have no understanding of the social and societal circumstances in which they operate and no capacities to assess the potential impact of their envisaged projects. Interventions such as in Afghanistan, Congo and Somalia show us that mistakes have been made in project planning and implementation because social, cultural and economic factors were not taken into account.

Since the international development aid community made a paradigm shift to the principle of “do no harm”, more aid organizations are now considering social and cultural factors right from the start of their construction projects. The idea behind this approach is to de-escalate and adapt to existing local conflicts and to prevent the outbreak of new conflicts.

During the past years, ZEF has developed the tool of so-called *Context Analyses* – drafted on demand, for example, from development organizations such as the GIZ (German International Cooperation) and *Welthungerhilfe*. *Context Analyses* are based on comprehensive literature reviews, the analysis of other available secondary data, as well as short-term field stays in the project regions to collect primary data. As such, *Context Analyses* form an important interface between science and practice.

They do not only analyze the social, economical, political, cultural and historical framework of a region, but also show opportunities and risks for the projects’ implementation. Carrying out the analyses requires local expertise as well as knowledge of the structures and project formats of international development organizations. It also even implies the critical questioning of envisaged project measures.

ZEF has recently conducted a *Context Analysis* for a district in southern Punjab, Pakistan. This region has been neglected by the Pakistani government for decades and was the district most heavily affected by the floods of 2010. One of the outcomes of ZEF’s analysis was that local residents were able to help themselves immediately after emergency aid had set in. They adapted to the most urgent hardships the disaster caused such as food shortage, loss of shelter and privacy, the possible outbreak of diseases, etc. In the process of mid-term relief operations, the development organizations seemed to be overtaken by the locals’ own activities and efforts to make the best of the situation. This called for a re-thinking of the organizations’ intervention goals as well as their approach for reconstruction.

Another outcome of the analysis was that project interventions in the transition phase between short-term emergency and development aid (LRRD approach: Linking Relief, Rehabilitation and Development) only make sense in Punjab when both the landless and the land owners are involved. The latter are traditionally extremely powerful and their political will for change is essential if this is to be achieved.

The tool of *Context Analyses* forms an important forum for dialogue between researchers and practitioners. It links fundamental research and implementation. The researchers at ZEF are convinced of the concept of conducting continuous scientific monitoring of projects. This has been called for time and again, but so far it has only been implemented occasionally.



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Facts & news

Research program funded by the Foundation fiat panis takes off with a workshop series

The Foundation fiat panis is now supporting doctoral research on food security and rural development in developing countries via its “Dr. Hermann Eiselen PhD Grant”. The program started with a series of workshops for doctoral students. Twenty-two doctoral students from ZEF and the Food Security Center at the University of Hohenheim participated in the first workshop on ‘Policy and Science’ which took place at ZEF on April 1–2, 2011.



Students participating in the fiat panis workshop.

Opening of the International Campus of the “Alternative Nobel Prize” in Bonn

The new International Campus of the Right Livelihood Award, which is based at ZEF, was officially inaugurated on May 30, 2011. Bonn’s Lord Mayor, Jürgen Nimptsch, and the Rector of the University of Bonn, Jürgen Fohrmann, welcomed the audience, among whom were “Alternative Nobel Prize” laureates such as Raul Montenegro from Argentina, Hanumappa Sudarshan from India, Shrikrishna Upadhyay from Nepal und Wes Jackson from the U.S.A. Twenty selected doctoral students together with the above four laureates participated in the subsequent workshop on “Reverse degradation by innovation: New pathways of sustainable natural resource management”.

Precious Resources for Uzbekistan: Movie just released

This video shows a range of research activities carried out in the context of the ZEF/UNESCO project on the improved management of natural resources in Uzbekistan. You can watch the 20-minute movie in English, Russian and German on our website via youtube: www.youtube.com/user/zefbonn

ZEF alumnus from Bangladesh receives award

Dhaka, Bangladesh, April 27, 2011. ZEF alumnus Sayan Chakrabarty of Shahjalal University of Science &

Technology, Sylhet, has been granted the award in Social Sciences by the University Grants Commission (UGC) of Bangladesh for his fundamental research on child labor.

“Marginality and extreme poverty – towards inclusive development for and with the poor”

Experts from research, business and non-profit organizations discussed and worked on this topic during an international conference at ZEF from June 20–22, 2011. The conference was supported by the Bill & Melinda Gates Foundation and the Volkswagen Foundation. Please see ZEF’s website for conference videos and interviews: www.youtube.com/user/zefbonn



Marginality conference at ZEF, June 20.

ZEF-Director holds new UNESCO chair on “Education for sustainable development”

ZEF Director Prof. Dr. Paul Vlek was officially inaugurated as a UNESCO chair-holder in Urgench, Uzbekistan, on July 15, 2011. This chair on “Education for sustainable development” is one of 15 UNESCO chairs worldwide and the first one to be established in Central Asia. It will be supported for a five-year period. Representatives of the national science and education community as well as of international donor agencies attended the inauguration ceremony taking place at the State University of Urgench in Uzbekistan.



‘Development on the margin’: Tropentag 2011 in Bonn

ZEF is involved in organizing this year’s *Tropentag*, which will take place in Bonn from October 5–7, 2011. Conference information is available at www.tropentag.de

Regional answers to global challenges

ZEF organizes workshop on global environmental change and water-related diseases in Uzbekistan

“Global environmental change and water-related diseases: Improving risk assessment strategies for public health care in Uzbekistan” was the theme and title of a workshop held in Tashkent, Uzbekistan, from May 2–6, 2011. It was organized by ZEF with the support of the Volkswagen Foundation, the World Health Organization (WHO) and the Ministry of Health of the Government of Uzbekistan. The Uzbek Deputy Minister, Assameddin

— due to microbiological and industrial pollution as well as to the salinity of drinking water. These diseases have become a major challenge to the public health care systems in the region. The WHO country representative in Uzbekistan, Michel Louis Marie Tailhades, pointed out that water is closely linked to health issues. Therefore, improving water, sanitation, and hygiene can lead to better health conditions for the population and hence increase economic and social productivity in the country.

Olga Mirshina of the Department of Public Hygiene, Ministry of Health of Uzbekistan, stated that man-made pressure on the environment in Uzbekistan is getting worse. Especially with regard to water use: whereas 90 % of the water resources in Uzbekistan are used for irrigation purposes, 5 million people do not have access to centralized water supply schemes. Another area of concern is increasing waste water from local industries, especially in down-stream territories like Karakalpakstan.

Theory and practice

In the course of the workshop, five expert panels dealt with different aspects of water and health issues in Central Asia, coming up with a number of recommendations:

- **The water and health nexus:** A water safety plan has to be developed for Uzbekistan in accordance with WHO standards. Also, the economic, social and institutional feasibility of existing drinking water quality standards and the respective regulatory framework in Uzbekistan has to be assessed. In addition, the water quality testing capacities of Uzbek laboratories have to be strengthened, and information about the impact on human health as a consequence of overusing fertilizers and pesticides has to be made available.
- **Research-based tools can help to improve health governance under the following premises:** GIS tools have to be used for epidemiological studies assessing risks from water-related diseases. Moreover, geo-reference data on water-related diseases have to be collected, stored and analyzed and scenarios that project future occurrences of water-related diseases taking into account global environmental change have to be designed.
- **The public health care system in Uzbekistan, especially for the poor and vulnerable, can also be improved when the following challenges are overcome:** Economic aspects of public health care in Uzbekistan have to be investigated more thoroughly. The disparity and distribution of diseases (regional, gender and age-specific) have to be documented and registered more consistently, and people and groups who are vulnerable to water-related diseases have to be identified more systematically.



Workshop participants visited a rural health care center near Tashkent.

Kamilov, gave an opening address. The workshop brought together more than 50 experts in the fields of public health and risk management from around ten countries, representing a wide range of organizations and disciplines.

The workshop in Tashkent focused on the impact of global environmental change on human health. One of the main premises of the workshop was that the globalization of people brings about the increased spread of diseases and a changing epidemiology of endemic diseases. The overall goals of the workshop participants were to develop an international collaborative research and capacity building program and to improve health care services related to water-borne diseases in the region. This includes an initiative for improved risk assessment strategies for public health care.

Situation in Uzbekistan

Water-related diseases in Central Asian countries and especially in Uzbekistan have increased in recent years

- Regarding **health education and research**, Uzbekistan needs more adequately trained researchers to conduct risk assessments of water-related diseases. Moreover, capacities to train staff to create awareness of public health care issues have to be strengthened.

Based on the results of the workshop, a proposal will be submitted for funding an application-oriented and trans-disciplinary research project on water-related diseases and global environmental change in Central Asia.



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Guest Researcher at ZEF: Talk with Nobusuke Iwasaki

Dr. Iwasaki comes from NIAES (National Institute for Agro-Environmental Sciences) in Tsukuba, Japan, a research institute with around 200 researchers and staff. He has been working as a guest researcher at ZEF from July 2010 until July 2011. Dr. Iwasaki is a physical geographer by academic training and has a PhD degree from the Tokyo Institute of Technology. He is a specialist in Geographic Information Systems (GIS) and remote sensing. At ZEF, he has been involved in research on afforestation and climate change mitigation in Central Asia.



How and why did you decide to come to ZEF in Bonn?

NIAES and ZEF have signed a Memorandum of Understanding (MoU). This MoU includes an exchange of researchers. Since I wanted to broaden my academic experience and scope beyond Japan, I offered

to go to ZEF. Moreover, my institute was interested in doing research in and on Central Asia, and I had the chance to be involved in the project funded by the Robert Bosch Foundation on afforestation and climate change mitigation in Central Asia. So I came to Germany – actually without ever having been there before, except on a transit flight via Frankfurt airport.

How is academic life at ZEF compared to your research institute in Japan?

Scientific life in Japan is organized and structured in a very different way. Our institute is closely affiliated to the national Ministry of Agriculture, which has around five research institutes operating under its supervision. We have clear requirements to fulfil in the framework of specific projects and research areas. In addition, we have regular meetings where we write obligatory progress reports. Working contracts depend to a large extent on fulfilling these requirements – measured by the concrete research outcome and the number of publications. I have

the impression that academic life here is less strictly regulated.

What do you like about ZEF and what do you find difficult?

I like the diversity: People from all over the world and from all disciplines are working together here. This is enriching and fruitful. In my institute, 95% of the staff are Japanese. On the other hand, the variety of projects at ZEF creates parallel cultures and demands some individual discipline: one does not always know what is expected and required.

How do you find the interdisciplinary research approach at ZEF?

In Japan we still tend to work along disciplinary lines, and this is also true for my institute. I really like the interdisciplinary way of conducting science. There is so much to learn from each other!

How is the relationship between professors and students in comparison?

In Japan, students work very closely with and, above all, for the professor. Students are mostly embedded in the professors' projects. In Germany, students seem to be more independent in how and what they study. Here, students have to manage to finish in time and get things like field research organized more or less by themselves.

What are the challenges Japanese academia is facing?

We definitely have too few experts in the field of radioactivity and its impact on agricultural environments. At my institute, there are only three people working on this, and they are overwhelmed with work following the disaster in Fukushima. Alas, academic careers have lost their attraction for most young people: They prefer to do a Bachelor or Master's degree and then shift to business and industry, where much higher salaries are offered than in research. So we have to see how we can make up for this by making academic careers attractive again because we urgently need scientists and experts to tackle the challenges facing us.

Dr. Iwasaki, thank you for this interview.

The interview was conducted by Alma van der Veen.

Costs of “inaction” on land degradation, desertification and drought – a global assessment needed

Land degradation, desertification and drought (DLDD) are increasingly considered a global problem for large numbers of people in all climate zones. The costs of inaction in addressing these problems are high, i.e. the later we act the higher the price. A new study, conducted by researchers of ZEF and the International Food Policy Research Institute (IFPRI) addresses these issues.



Land degradation affects soil productivity.

Land degradation processes such as soil erosion, salinity and nutrient losses have negative effects on the productivity of the land, measurable by lower crop yields. They also affect the full range of ecosystem services that land provides. For instance, they impact soil conservation and formation, nutrient cycling, as well as water and climate regulation. These impacts are not restricted to the actual site where the degradation occurs,

but can be transmitted to other sites or ecosystems. For example, sedimentation caused by soil erosion affects river ecosystems, or reduces the effectiveness and efficiency of dams and reservoirs in irrigation and hydropower schemes. From a global perspective, DLDD affects biodiversity and climate patterns.

Impact on human well-being

Through all these effects, land and soil degradation and drought can have immense impacts on human well-being. The rural poor, who strongly depend on land for their livelihood and have little resources to mitigate the effects of DLDD, are particularly at risk. A much higher share of very poor people live in degraded areas compared to non-poor people. Moreover, land and soil degradation has indirect effects on global human well-being. Lower productivity of the land leads to higher prices for agricultural goods because they become scarcer or because more inputs (e.g. fertilizer, water) are required per unit of agricultural output. A higher share of income spent on food because of DLDD can accelerate poverty and food insecurity. Furthermore, shocks in agricultural markets ripple through economic sectors downstream and upstream, for instance through impacts on input markets, thus potentially decreasing national income.

Analyzing the costs of inaction versus action

All these effects considered together have far-reaching social and economic costs. But how can these costs be measured? What kinds of actions exist to combat DLDD,

and what do they cost? How can policy-makers support and incentivize action against DLDD? The United Nations Convention to Combat Desertification (UNCCD) has been concerned about these issues for a long time.

Confronted with these questions, a team of ZEF and IFPRI researchers have prepared a report on the state of knowledge on the economics of DLDD, in which they analyze how the effects of land and soil degradation and drought can be assessed in terms of human costs. Further, they deliver an overview of actions that can be taken against land degradation and their respective costs and benefits. A number of country studies clearly show sustainable land management practices to be cost-effective. Institutional and policy actions are required to support such practices. Gaps in current knowledge on the extent and severity of global land and soil degradation are highlighted, together with gaps in the economic valuation of many ecosystem services and their links with human well-being. This report prepares the groundwork for a more comprehensive initiative to implement the proposed “cost of action versus inaction” framework necessary to advise on land use and management policy.

Policy relevance

Such a research initiative on the economics of land and soils is intended as a parallel to the recent global economic assessments on climate change (Stern Review, 2006) and ecosystems and biodiversity (TEEB, 2010) and is highly significant for policymakers. The next UNCCD Scientific Conference on “Economic assessment of desertification, sustainable land management and resilience of arid, semi-arid and dry sub-humid areas” in 2012 will be able to draw on these new insights from the IFPRI-ZEF study. The study has been published as ZEF Discussion Paper no. 150 and is downloadable at www.zef.de/discussionpapers.html.

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Project updates

Four doctoral students add WISDOM with their research on the Mekong Delta in Vietnam

Four doctoral students from the WISDOM Project (Water-related Information System for the Sustainable Development of the Mekong Delta) defended their theses successfully between April and June 2011.

Nadine Reis's dissertation topic was "Tracing and making the state. Policy practices and domestic water supply in the rural areas of the Mekong Delta, Vietnam", Judith Ehlert wrote her thesis on "Living with the flood – local knowledge in the Mekong Delta, Vietnam", whereas

Judith Ehlert, Nadine Reis and Tatjana Bauer.

Tatjana Bauer did her doctoral research on "The challenge of knowledge sharing – practices of the Vietnamese science community in Ho Chi Minh City and the Mekong Delta". Huu Pham Cong wrote his thesis on "Planning and Implementation of the Dyke Systems in the Mekong Delta in Vietnam". The four ZEF students belong to the first batch of 14 PhD students who started their research during the first phase of the WISDOM project (2007–2010) and were the first students to finish their theses. The WISDOM project started its second research phase in October 2010.

Contact: Gabi Waibel, gwaibel@uni-bonn.de



Official start of the Crossroads Asia project in Berlin

The research project and competence network Crossroads Asia officially started with a festive opening ceremony in the premises of the Parliamentary Association in Berlin on April 7, 2011. About 150 scientists, politicians, and media representatives attended. For more project related information please take a look at <http://crossroads-asia.de>



Crossroads project members in Berlin.

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Local Politics and Agriculture: New project at ZEF

A new project at ZEF deals with "Conversion of knowledge relations in post-Soviet agriculture. The impact of local politics on the knowledge management of local actors in Tajikistan". The project will be funded for a three-year period by the Volkswagen Foundation.

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Research project on land degradation presented to the UNCCD and published

The results of the joint IFPRI-ZEF project on: "The economics of desertification, land degradation and drought: toward an integrated global assessment" were presented at the inaugural Bonn Partnership Meeting, December 14–15, 2010. The meeting was hosted by the United Nations Convention to Combat Desertification (UNCCD). The project ran from April 2010 to May 2011 and was funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the German Agency for International Cooperation (GIZ). The final version of the report was released as a joint IFPRI and ZEF Discussion Paper in May 2011. (No. 150, see <http://www.zef.de/discussionpapers.html>). For more information on the topic, read the article "Costs of inaction on land degradation, desertification and drought – a global assessment needed", page 10 in this edition of ZEF news.

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Huu Pham Cong and colleagues after his graduation at ZEF.

Former Ghanaian politician conducts doctoral field research in his “own backyard”

Interview with S. Nana Ato Arthur, a ZEF junior researcher from Ghana working in ZEF’s Department of Political and Cultural Change. He is conducting his doctoral research on “Decentralization and political accountability of local government in Ghana – A case study of the Komenda-Edina-Eguafo-Abrem (KEEA) municipality”.



Nana Arthur at a workshop he organized on local governance.

Your research is on local governance – How did you become interested in the issue?

From March 2001 to May 2005, I was the district chief executive of the KEEA district assembly. As mayor, I was responsible for the overall development of the KEEA District. I was involved in the preparation of the ‘Elmina 2015 development strategy’, which became a development blueprint. In addition, between 2005 and 2009, I served as the central regional minister and was very active in both local and national politics in Ghana. The practical gaps identified during my work both as mayor and minister aroused my interest in the topic.

What were your main research questions?

Decentralization is high on the agendas of international donor organizations and development agencies and has become a valued political and economic development policy in most developing countries since the early 1980s. But does it really work? What are the challenges and impact of decentralized structures for local decision-makers and the population in Ghana? What about accountability – who is accountable to whom? These are the kind of issues I wanted to find out more about. Of course, I already had experience from the angle of mayor and regional minister. But this is only one side of the coin and a political one.

As a scientist, I had the chance to analyze things more thoroughly and from different scientific perspectives.

Which methodology did you apply?

In my case study on the KEEA municipality I conducted both qualitative and quantitative empirical research. The instruments I used were semi-structured questionnaires, face-to-face interviews, a survey, focus group discussions and participatory observation. My key informants included academics, traditional rulers, policy makers, political parties, assembly members, mayors and members of parliament.

What is the main outcome of your research so far?

The interviews showed that the political elite and the ordinary people have very different views of local problems and the efficiency of the municipal government. For those who are part of the power structures – the elected or appointed representatives – everything seems to be working out fine. But from the perspective of the local residents, the KEEA assembly is not effectively accountable. One interviewee aptly put it that the municipal chief executive cannot be removed as long as he remains loyal to the president who appointed him – since he is not politically accountable to local citizens. Also, the non-party-partisanship of the local electoral system in Ghana has become unattractive to electorates.

You can read the full interview at www.zef.de/news of the doctoral program.

The interview was conducted by Sebastian Eckert and Alma van der Veen.

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