

International Conference on Agricultural Research for Development: European Responses to Changing Global Needs

Workshop Programmes

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EFARD 2005 Conference Secretariat
Swiss Centre for International Agriculture
Scheuchzerstrasse 7, ETH Zentrum / SEC C5
CH-8092 Zurich, Switzerland
Phone: +41 44 632 35 39
Fax: +41 44 632 15 89
Email: efard2005@agrl.ethz.ch
Web: www.efard2005.org
Cover photo: C. Zundel

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1. North-South Research Partnerships: Guidelines, Challenges, Success Stories and the Way Forward

Organising Institution: Global Forum on Agricultural Research (GFAR)

Background and scope

Evidence exists that a combination of research, technology development and policy support is capable of providing effective and long lasting solutions to the problems of poverty, food insecurity and natural resources degradation, especially when stakeholders involved in agricultural research for development work together in partnerships. This workshop, through an in-depth discussion on current and past cases of successful research partnerships, will identify factors that may promote or hinder such important partnerships ventures especially those between Europe and southern fora. The outputs will be widely shared to contribute to lesson learning and improvement of this important issue of research partnerships.

Programme

<i>Moderation</i>	Jon-Andi Lys, Commission for Research Partnerships with Developing Countries (KFPE), Switzerland
<i>Introduction</i>	Ola Smith, GFAR Executive Secretary, Italy Introductory remarks on objectives of the workshop
<i>Presentation 1</i>	Ed Maan, The Netherlands Development Assistance Research Council (RAWOO), The Netherlands Research partnerships: Best practices, challenges and the way forward
<i>Poster 1</i>	Monique Salomon, Farmer Support Group, Scottsville, South Africa
<i>Poster 2</i>	Pratap Shrestha, Local Initiatives for Biodiversity, Research and Development (LI-BIRD), Nepal
<i>Discussion</i>	The way forward (Participants and Executive Secretaries of Regional Fora)

Key questions

- How were / are partner(s) integrated in the project design – who had the idea of the project / program?
- Who has/had the lead in the research partnership project - how are resources and responsibilities shared?
- What are best practices to overcome asymmetries within a research partnership – after your experience / in the project you present?
- What are/were the 3 most important factors that lead/led to a successful research partnership (in the project you present)?
- What are the most dangerous pitfalls?
- What is in your opinion the added value of a research partnership in comparison to a research project without partner – what would you not have reached in your research project when you would have done it without partner?

2. Research Partnerships in the CGIAR Challenge Programmes

Organising Institution: Consultative Group on International Agricultural Research (CGIAR)

Background and scope

The Challenge Programs are designed by the CGIAR alliance to bring together broad research for development partnerships and focus attention on critical global issues. Four Challenge Programs are currently in operation, each of which has a unique governance and operating structure. Water for Food, is focussed on increasing the productivity of water used for agriculture, leaving more water for other users and the environment. HarvestPlus is an international, interdisciplinary, research program that seeks to reduce micronutrient malnutrition by harnessing the powers of agriculture and nutrition research to breed nutrient dense staple foods. The Generation Challenge Program seeks to apply advances in molecular biology and harness the rich global stocks of crop genetic resources to create and provide a new generation of plants that meet farmers' needs. And the most recently established Challenge Program – "Securing the Future for Africa's Children" - is addressing the key constraints to reviving agriculture in Sub Saharan Africa. The workshop will explore the opportunities and challenges inherent in these partnerships programs with a particular focus on the European experience.

Programme:

<i>Moderation</i>	Paul Harding, Assistant Director General, Donor Relations IPGRI, former Executive Secretary of EIARD, Italy
<i>Introduction</i>	Francisco Reifschneider, CGIAR Director, USA
<i>Presentation 1</i>	Jean-Claude Legoupil, Forum for Agricultural Research in Africa, Ghana Building Sustainable Livelihoods through Integrated Agricultural Research for Development. Securing the Future for Africa's Children FARA/CGIAR Challenge Program
<i>Presentation 2</i>	Wayne Powell, NIAB, UK Unlocking Genetic Diversity in Crops for the Resource Poor: Generation Challenge Programme
<i>Presentation 3</i>	Penny Nestel, Nutrition Co-ordinator, HarvestPlus Improving Public Health through Agriculture
<i>Presentation 4</i>	V.V. Sugunan, World Fish Centre, Egypt Challenge Program on Water & Food
<i>Conclusions</i>	Paul Harding

Key questions

- What are the key constraints to Building Partnerships with Centers which generate global public goods?
- From a European perspective, what elements of the Challenge Programs should be adjusted?
- Using the Challenge Programs as a platform, what is the role of the Europeans in supporting South-South partnerships?

Abstracts of Presentations

Building Sustainable Livelihoods through Integrated Agricultural Research for Development. Securing the Future for Africa's Children FARA/CGIAR Challenge Program

by Jean-Claude Legoupil, FARA

Sub-Saharan Africa has the tragic distinction of being the only region in the world where overall food security and livelihoods are deteriorating, rather than improving. Recognizing the gravity of this problem, the New Partnership for Africa's Development (NEPAD) has set the goal of increasing agricultural output by 6% per year for the next 20 years. This poses a tremendous challenge for agricultural research and development on the scale of a Sub-Saharan Africa Challenge Programme (SSA CP).

Through an extensive consultation process, the SSA CP's identified three major constraints to reviving agriculture in Africa, i.e., failures of agricultural markets, inappropriate policies and natural resource degradation. To address these constraints the SSA CP requires a new Integrated Agricultural Research for Development (IAR4D) to foster synergies among disciplines and institutions along with a renewed commitment to change at all levels from farmers to national and international policy makers.

The SSA CP's objectives are the following: i) to develop technologies for sustainably intensifying subsistence oriented farming systems; ii) to develop smallholders production systems that are compatible with sound natural resource management; iii) to improve the accessibility and efficiency of markets for smallholders and pastoral products and iv) to catalyze the formulation and adoption of policies that will encourage innovation to improve the livelihoods of smallholders and pastoralists.

The SSA CP is characterized by a collaborative effort among National Research Systems, International CGIAR Centers, Advanced Research Institutes, Farmers Organizations, Non Governmental Organizations, Civil Society, Policy Makers

Unlocking Genetic Diversity in Crops for the Resource Poor: Generation Challenge Programme

by Wayne Powell, NIAB

The Generation Challenge Programme is an international research consortium that unites CGIAR Centers, advanced research institutes and NARS in a global initiative to expand and target plant genomics research to the needs of the resource poor farmer and consumer. A fundamental aim of the programme is to exploit advances in molecular biology to harness the rich global heritage of plant genetic resources and create a new generation of crops to meet the needs of resource poor people. A cornerstone of the programme is that its outputs are released as public goods, enabling scientists in developing countries to participate and exploit the technology, products and concepts emerging from the programme. This presentation will elaborate on this theme and provide examples of partnerships that add-value to the overall thrust of this exciting and dynamic Challenge Programme.

Improving Public Health Through Agriculture

by Penny Nestel, Harvest Plus

HarvestPlus, the Biofortification Challenge Program of the CGIAR, began full-scale operations in January 2004. Since that time, HarvestPlus has established a multi-disciplinary alliance of over 100 partner institutions in Africa, Asia, Latin America, the United States, Europe and Australia to develop biofortified staple foods and test their nutritional efficacy. Agriculture, nutrition and social scientists are working closely together with communication experts to achieve this mission. In its first phase of operation, HarvestPlus is focusing on breeding iron, zinc or beta-carotene (a precursor to vitamin A) into staple crops such as rice, wheat, maize, cassava, sweet potato and beans. Based within the CGIAR Centers, HarvestPlus is developing a public health intervention that harnesses the powers of agricultural research to reduce micronutrient malnutrition that affects over 2 billion people globally. This presentation will highlight the unique approach HarvestPlus is taking to bring together a multi-disciplinary and multi-regional team of experts to improve public health on a global scale.

Challenge Program on Water & Food

by V.V. Sugunan, WorldFish Center

The Challenge Program on Water and Food (CPWF), launched in 2002, is the latest international initiative to address one of the greatest challenges that mankind has ever faced – the water challenge. We currently divert 70 - 90 % of the surface flow for irrigation. On account of the raised standards of living, water demand for urban industrial and cultural purposes is steadily mounting in much of the developing world. Even at the current level of diversion, there is considerable water shortage in many non-agricultural sectors and stress on aquatic ecosystems. Thus, we have to meet the extra demand for food by using the same amount of water available now or even less, which is a formidable challenge. Pursuing a goal of improving food and environmental security by increasing water productivity on a sustainable and equitable basis, CPWF supports and leverages research, builds capacity and forges partnerships in nine river basins across the world under five themes. Run by a consortium comprising 5 CGIAR Centers, 7 NARES, 4 Advanced Research Institutes and 3 NGOs, the CPWF has entered its operational phase in 2004 by launching a significant research portfolio of about 50 projects, selected globally through a transparent, competitive grants process.

3. Bringing Stakeholders Together: Sustainable Natural Resource Management and Poverty Reduction. Experiences from Bolivia, Bangladesh and Mali

Organising Institution: Intercooperation, Bern, Switzerland

Background

Various development projects and programmes implemented by Intercooperation on behalf of the Swiss Agency for Development and cooperation (SDC), promote farmer centred development of innovations in the field of sustainable natural resource management. These projects aim at poverty reduction through a genuine reorientation of applied research and extension with a focus on improved livelihoods for poor and marginal farmers. Concepts such as participatory technology development, farmer-led experimentation, farmer oriented extension are operationalised in different ways by different projects depending on the institutional capacities, partnerships and the prevailing farming systems. Often this goes beyond the support of farmers to find technical solutions and it involves new ways of stakeholder interactions

Case presentations

- Context, focus and approaches of development interventions supported in three IC projects/ programmes in the field of natural resource management
- Achievements and challenges our programmes face in their efforts to contribute to sustainable natural resource management, agriculture production and poverty alleviation

Programme

<i>Moderation</i>	A. Kolff, Intercooperation (IC), Switzerland
<i>Introduction</i>	A. Kolff IC's poverty focus and efforts towards improving the livelihoods for poor and marginal households in rural areas IC's portfolio related to farmer centered development of innovations of sustainable natural resource management
<i>Presentation 1</i>	Eddy Morales, PROSUKO project, Bolivia Fighting rural poverty: from market access to agribusiness for sustainable development processes. Experiences in Altiplano Norte, Bolivia
<i>Presentation 2</i>	Farid Uddin Ahmed, Sustainable Land Use Programme, Bangladesh Promoting Agroforestry in Bangladesh: a contribution to poverty reduction
<i>Presentation 3</i>	Cissé Sow, Intercooperation, Mali Shea tree and its products: An emblematic resource in poverty alleviation in rural areas in Mali
<i>Discussion</i>	Discussion of the case presentations and the workshop key questions

Key questions

Clarifications on the cases presented and discussion on the following issues/topics:

- Fighting rural poverty by enabling access to agriculture markets
- Addressing poverty dimensions with agriculture/agroforestry as entry point
- Effective ways to facilitate new ways of stakeholder interactions that help farmers to increase their livelihood opportunities in agriculture

Abstracts of Presentations

Fighting rural poverty: from market access to agribusiness for sustainable development processes. Experiences in Altiplano Norte, Bolivia

by Eddy Morales, PROSUKO project Bolivia

The aymara people have a long historical and cultural background in the context of Altiplano Norte, being able to produce food in quite difficult meteorological and agroecological conditions. About a thousand years ago they discovered the potential for agriculture for the many natural wetlands located close the shore of Titicaca lake: the "Suka Kollus" is a technology that allows for a duplication of mean yields, being at the same time ecologically sustainable. Recently, with the collaboration of PROSUKO project, the livelihoods organized themselves around a number of communal and two provincial associations for strengthening their own development processes. Besides an organizational structure that capitalized the main lessons learned from previous experiences, those associations began to manage the trilogy of sustainability: natural resources, production and market. After the first market access experiences, they realized that have in their own a lot to offer to the local urban consumer, and even to the global world: biodiversity, history, culture, sustainable technologies, alternative knowledge, etc. That means that the concept of agribusiness is maturing naturally among them. Despite the social conflicts in the country, those associations show a renewed path of development. The main clue for understanding this process, is the fact that the turning point in the change of their vision: from subsistence to commercial producers, evolved simply after successfully market access experiences.

Promoting Agroforestry in Bangladesh: a contribution to poverty reduction

by Farid Uddin Ahmed, Sustainable Land Use Programme Bangladesh

The Village and Farm Forestry Project (VFFP), under the Sustainable Land Use Programme of SDC in Bangladesh, started with a sectoral approach –agroforestry- for increasing tree and crop production on homestead and farmland of small and marginal farmers. The project also supported nursery owners for the production of quality planting material of fruit and timber trees, in order to ease the access of farmers to improved varieties. In the course of time, VFFP gradually gave more attention to the strengthening of farmers' organisations, considering self-reliance as a prerequisite for the sustainability of the activities. Another evolution of the project's approaches was made when VFFP developed a more comprehensive analysis and understanding of poverty dimensions–vulnerability, security, participation and economic opportunities. This led to a shift toward livelihoods and marketing approaches, combined with human and institutional development. Though agroforestry remains a valid entry point for contributing to poverty reduction through the intensification and diversification of farmers' production, more weight is given to processing and marketing aspects, diversification of income generating activities beyond

the strict frame of agroforestry, the development of local dynamics which take care of their own development, the establishment of local service provision, etc. LEAF (Livelihood, Empowerment and Agroforestry) Project, the successor of VFFP, is still at an early stage of using these new approaches, but the first experiences tend to show that shifting from a strictly sectoral approach towards a more holistic approach increases the impacts of agriculture on poverty reduction.

Shea tree and its products: An emblematic resource in poverty alleviation in rural areas in Mali

by Dieneba Cissé Sow, Intercooperation Mali

In Mali, like in other sudano-sahelian countries, shea tree is one of the most socially and economically important trees species. Its main product, the butter, is used in various sectors such as alimentary, cosmetic and medicine and there are many market opportunities, at local and international levels, the main producers of this crop (rural women) can take advantage of. Upstream and downstream from the women producer groups, many other stakeholders are interested and/or involved in the conservation of the parkland on one hand, and the processing and trade of the shea products on the other hand. However, there is a crucial lack of interconnection between them and that constitutes the major constraint to developing the shea tree and its products. Intercooperation's Delegation in the Sahel facilitated the establishment of the "Pôle karité", a resource centre that aims at bringing together all the stakeholders involved in the chain of promoting shea products (women producers groups, traders, policy makers, BDS providers, norms and regulations institutions, research centres) and gives them the opportunity to share visions, strengthen their relationships, build partnerships and finally increase each other benefits through the promotion of this crop. Thus, we hope that the objectives - sustainability of the natural resources, increasing rural women roles and capacity in local economic development and household food security - could be achieved through this systemic approach.

Contact person:

Annette Kolff, Head Agriculture Team IC Bern

akolff@intercooperation.ch

tel +41 31 385 10 10

4. Research at the Interface of Agricultural Productivity, Practices, and Health Status of Rural Communities in Developing Countries

Organising Institution: Centre Suisse de Recherches Scientifiques (CSRS, Abidjan, Côte d'Ivoire)

Background

There is an increasing concern that agricultural productivity in developing countries is negatively affected by poor health status of the food-producing communities. This seemingly evident relation has proven astonishingly difficult to prove on a micro-level, and in general, particularly controlled settings had been employed to do so (e.g. tea plucking, vegetable production). Conversely, agricultural practices are known to affect the health status, which has been illustrated on e.g. malaria and irrigation, food-borne diseases, and zoonoses. The health-agriculture interface is complicated and complex, but the current hopes are that win-win situations can be created at this interface. This is reflected in global initiatives like SIMA¹. In order for agricultural and health research communities to respond to this, the discussion about methodological and conceptual issues must be continued, and promising partnerships forged.

Health and agriculture are both fields of utmost importance to reach development goals in Africa and elsewhere in the tropics. Research still has to contribute in this field, and Europe's research centres' and centres of competence can play an important role in the furthering of this topic. The CSRS and its partners in this context, the Swiss Tropical Institute and the ETHZ, would like to contribute to the dialogue initiating this workshop on the EFARD 2005 platform.

Programme

<i>Moderation</i>	A. Tschannen, CSRS, Côte d'Ivoire
<i>Introduction</i>	A. Tschannen Welcome, presentation of panel members & introduction into theme
<i>Presentation 1</i>	G. B. Koudou, CSRS, Côte d'Ivoire Agricultural productivity and farmer's health status: current knowledge and example from Côte d'Ivoire
<i>Presentation 2</i>	D. Daouda, CSRS, Côte d'Ivoire Overview of impact of agricultural practices on health status of rural communities
<i>Panel input</i>	Comments, own experiences and questions by an expert panel comprising in addition to the 2 speakers: Dr. D. Gilgen and Dr. O. Girardin.
<i>Discussion</i>	Discussion of the workshop key questions

¹ Systemwide Initiative on Malaria and Agriculture

Key Questions

- How can agricultural productivity be measured in not so well defined settings, e.g. in a rural village with diversified production strategies (composite indicators)?
- Examples and experiences from audience– research projects, research questions.
- Priority setting for operational and basic research.
- How can or do current agricultural development projects and research initiatives take into account the information on the health-agriculture relationship?

Expected output

Methodological considerations for measuring agricultural productivity, potential win-win situations at agriculture-health interface including new research questions, increased awareness of potential health implications for agricultural research in developing countries

Abstracts of Presentations

Overview of impact of agricultural practices on health status of rural communities

by G. Koudou, Centre Suisse de Recherches Scientifiques (CSRS), Côte d'Ivoire

Agricultural practices can directly or indirectly influence risk factors associated with the frequency and transmission dynamics of parasitic diseases. For example, the effect of water resource developments on malaria transmission and the dynamics of its anopheline vectors have been studied in different ecological, epidemiological and socio-cultural settings. In Côte d'Ivoire, a considerable body of work has been carried out to assess the effect of irrigated rice agriculture on malaria. We have recently completed a comparative appraisal of malaria transmission dynamics, presumptive and clinical malaria episodes and parasite prevalence rates in two villages with different agroecosystems from February 2002 to August 2003. Initially, we found a high entomological inoculation rate (EIR), high numbers of presumptive and clinical malaria episodes, and high malaria prevalence rates in village A, where houses are located in close proximity to a large rice paddy. The corresponding measures for village B, where subsistence farming and intensified vegetable farming is performed, were significantly lower. In the subsequent year, in village A, EIR was significantly reduced, while in village B, more stable transmission dynamics were observed. Our observations are probably explained by the interruption of rice irrigation in village A in 2003, consequential to a farmers' conflict over land, while no changes occurred in agricultural practices in village B. Our results thus show a strong association between agricultural practices and human health, reflecting the intricate dependencies between the domains of human health and the environment that has been documented by various other researchers.

Agricultural productivity and farmer's health status: Current knowledge and example from Côte d'Ivoire

by D. Daouda, Centre Suisse de Recherches Scientifiques (CSRS), Côte d'Ivoire

Several studies have demonstrated the impact agriculture practices have on farmer's productivity and on the capacity of households to cope with illness episodes. Among recent publications, infections with Plasmodium, soil-transmitted helminths and schistosomes, often in relation with anaemia, were associated with reduced labour productivity in different epidemiological settings of the developing world. Malaria has received particular attention, as it is often the primary cause of morbidity and mortality in agricultural-based subsistence economies. However, only few studies made a serious attempt to assess and quantify the effect malaria has on labour productivity. This may be due to the difficulty to precisely assess productivity in many agricultural settings, and due to the complicated interaction of the various factors influencing productivity. In our own studies, we measured the impact of malaria on agricultural productivity over the course of 10 months, using the output of intensive vegetable farming as a proxy for labour productivity. During a single cabbage production cycle, farmers who were prescribed sick because of malaria for more than 2 days had 47% lower yields and 53% lower revenues than farmers who missed a maximum of 2 days. Our results and those from previous studies clearly show a relation between agricultural practices, farmer productivity, and human health, reflecting the intricate dependencies between the domains of human productivity, health and wellbeing at the interface of the environment. There is a growing body of evidence of these relations, which suggests that future development initiatives must adopt a clear view and consequential actions taking into account the health-agriculture interface.

5. Transdisciplinary Learning and Capacity Development for Innovation in the Rural Environment

Organising Institutions: International Centre for Development-Orientated Research in Agriculture (ICRA) and Centre for Development and Environment (CDE), University of Berne

Workshop outline in Keywords

New approaches to rural development, enhancement of technical, economic and institutional innovations at local, regional, national and international levels (innovation systems), transdisciplinarity, new skills and mindsets, individual and organizational learning, institutional capacity development, role of educational and research institutions in multi-stakeholder settings, and research partnerships.

Purpose

- Exchange of experiences of partnerships aiming at enhancing new approaches to learning and capacity development for rural innovation
- Discussion of potentials and limitations of new approaches to learning, research and development based on a case study from India/SAMAPRK-CDE and South Africa/ARC-ICRA.
- Identification of challenges for research-development-education partnerships based on multiple stakeholders and between European and Southern institutions by giving emphasis on: 1) capacity development and learning needs, 2) needs for new approaches to capacity development involving different stakeholders, 3) ways of organising European institutions for effective partnerships with Southern partners, identification of factors of success and failures

Programme:

<i>Moderation</i>	Jon Daane, ICRA, The Netherlands; Stephan Rist , CDE, Switzerland
<i>Introduction</i>	Jon Daane
	Welcome, presentation of panel members & introduction into theme
<i>Keynote 1</i>	M. Chidambaranathan, SAM PARK, India
	Transdisciplinary research, social learning and innovation in rural areas of India
<i>Keynote 2</i>	Art-Jan Verschoor , Agricultural Research Council, South Africa
	Problems and challenges for rural innovation
<i>Working groups</i>	Discussion of the two case studies (approaches and experiences) and own experiences of participants in two working groups (Moderators: Jon Daane, Stephan Rist)
<i>Presentations</i>	Jon Daane; Hans Hurni, CDE, Switzerland
	Presentation of institutional approaches for European – Southern partnerships
	- NCCR North-South
	- ICRA
<i>Conclusions</i>	Stephan Rist

Key questions:

- Which kind of political and institutional factors in the North and South are required for broadening space for learning-oriented transdisciplinary research partnerships?
- How to assure that learning-oriented transdisciplinary research partnerships are reviewed taking into account that they transcend purely academic and mostly mono-disciplinary based approaches of knowledge production?
- What kind of relationship should be established between specialised disciplinary-oriented research and transdisciplinary-based North-South partnerships?
- Which are specific requirements for higher education systems aiming at the integration of knowledge and skills that are necessary for successful learning-oriented transdisciplinary research partnerships?

Abstracts of Presentations***Agricultural Research Council experience - partnerships aimed at enhancing new approaches to learning and building capacities for rural innovation.***

by Aart-Jan Verschoor, Sustainable Rural Livelihood Manager, South Africa

The Agricultural Research Council (ARC) is a South African parastatal, supporting the National Department of Agriculture. Its mission is to promote the agricultural and related sectors through research, technology development and technology transfer. South Africa's first experience with ARD took place during 1995, when two citizens took part in the ARD training facilitated by ICRA through its Core Programme. This was a unique experience from a South African perspective, as historically agricultural research in SA primarily targeted the resource rich, and not the more diverse and complex resource poor agricultural systems. Having been exposed to the ARD approach, the principles of the ARD approach were slowly integrated in the Research and Extension system of the North West Province's Department of Agriculture, Conservation and Environment. Ex-participants within the ARC promote the ARD approach - to use inter-institutional teams and involve relevant stakeholders (including resource poor farmers) in the development process. The ARD approach for capacity building promoted by ICRA is unique in its integration of a range of topics into a pragmatic procedure addressing; its focus on the process rather than the technicalities; learning through hands-on team experience involving stakeholders; resulting in effective change agents with a range of soft skills and practical tools. This conforms to policy priorities, especially in terms of capacitating both development agents and 2nd economy farmers.

6. Can Organic Production Contribute to Income-Generation for Smallholders in the South and East?

Organising Institution: Research Institute of Organic Agriculture (FiBL)

Background

Improving the livelihood of rural populations includes the development of markets for the local products. Farming systems of developing and transitional countries, in the transformation from self-sufficient to market oriented production, become increasingly interdependent from the local and international economy. Farmers perceive this process of change both as threats and as opportunities. Typically the integration of farming systems in a larger economy has led to bigger dependency of farmers from secondary businesses, as there are input suppliers and credit agencies. The challenge, therefore, is to show to the farmers ways to adjust their farming system in order to benefit from the market opportunities without harming their economical situation and natural resources. Organic agriculture has the potential to enhance the sustainability of the agricultural production systems, to increase market access, and to improve the autonomy and economy of rural communities.

Organic agriculture can, especially in poorer countries, contribute to meaningful socio-economical and ecologically sustainable development. On one hand, this is due to the organic practice, which means low inputs and therefore cost effectiveness. On the other hand, the market for organic products – at local and international level – has tremendous prospects for growth and offers to creative producers and exporters from the south some excellent opportunities to improve their incomes and living conditions.

As to whether organic agriculture is a viable alternative for a particular holding, is something, which can only be clarified case by case. There is an increasing number of projects and initiatives targeting the organic market. And there are already many experiences with organic products for export and local markets in developing countries and markets in transition.

In this workshop, the focus lies on the development of local and international markets for organic products. The objectives of this workshop are:

- to present experiences and lessons learned of organic market development projects
- to discuss success factors and challenges of organic market initiatives
- to discuss the question, how the organic market can contribute to income-generation for small holders in the South and East

Swiss institutions like the State Secretariat of Economic Affairs (seco) and the Swiss Import Promotion Programme (SIPPO) present their approach and selected examples from their programmes. Representatives of organisations from developing and transitional countries speak about their experiences, especially with local and export markets and certification. Helvetas, the Swiss Association for Development Cooperation presents experiences in the promotion of organic cotton.

Programme

<i>Moderation</i>	Dr. Samuel Moser, FiBL, Switzerland
<i>Introduction</i>	Lukas Kilcher, Head International Cooperation FiBL, Switzerland Contribution of Organic Farming to Sustainable Rural Development: Diversification, sustainable use of local natural resources, yield stability, more autonomy, access to market, increase in income
<i>Presentation 1</i>	Gergana Nentcheva (ED), Balkan Biocert, Bulgaria Set-up of a local certification agency in Bulgaria
<i>Presentation 2</i>	Mathew Sebastian, Director Indocert, India How can a local certifier contribute to the market-development for organic products from India?
<i>Presentation 3</i>	Dr. Jorge Cueto, Director Institute for Tropical Fruits (IIFT), Cuba Setting up of organic coconut production and export from Cuba
<i>Presentation 4</i>	Lavdosh Ferruni (Dir.), Organic Agricultural Association (OAA), Albania Hurdles in the establishment of domestic organic markets in Albania
<i>Presentation 5</i>	Jens Soth, Helvetas, Switzerland Organic cotton – experiences from Kirgistan and Mali
<i>Presentation 6</i>	Franziska Staubli, SIPPO, Switzerland Promoting market access of organic products into Europe and Switzerland
<i>Discussion</i>	Discussion of the workshop thesis and of questions Conclusion by Lukas Kilcher

Key questions

Workshop thesis: Organic Farming generates income and improves livelihood in transitional and developing countries.

- Which are the most important socio-economic decision making factors of small holders for the conversion to organic farming?
- Which is the role of fair trade and price premiums for small holders in the South and East?
- What can be the contribution of organic farming to food security and for poverty alleviation?
- Are organic products only for the well-off people?

Abstracts of Presentations

Set-up of a local certification agency in Bulgaria

by Gergana Nentcheva (ED), Balkan Biocert, Plovdiv, Bulgaria

Certification costs are a severe obstacle in the conversion to organic farming in poor countries. The State Secretariat of Economic Affairs (SECO), Switzerland, therefore has developed a programme to reduce these obstacles to trade. With technical guidance of the Research Institute of Organic Agriculture (FiBL), SECO supports the set-up of local certification bodies in India, Bulgaria, Rumania and soon also in Lebanon

How can a local certifier contribute to the market-development for organic products from India?

by Mathew Sebastian, Director Indocert, Kerala, India

Local certification bodies like Indocert shall help to reduce certification costs and thus to facilitate access to domestic and international markets, particularly for smallholders. There is an important contribution of local certification bodies in the development of markets for Indian organic products

Setting up of organic coconut production and export from Cuba

Dr. Jorge Cueto, Director Institute for Tropical Fruits (IIFT), Cuba

Organic agriculture enables farmers in Cuba to utilize additional market potentials and to develop an independent agriculture sector. Which are the challenges and experiences of Cuban farmers in developing organic coconut production in line with the requirements of the demanding Swiss market?

Hurdles in the establishment of domestic organic markets in Albania

Lavdosh Ferruni (Dir.), Organic Agricultural Association (OAA), Tirana, Albania

Organic farming in one of the poorest countries in Europe– makes that sense? The answer of OAA is yes: There is a general preference of consumers for locally and naturally produced food, and such market opportunities can support the rural development. OAA is developing the local market in small steps, such as creation of producer groups and farmer trainings.

Promoting market access of organic products into Europe and Switzerland

Franziska Staubli, SIPPO, Switzerland

Emerging markets and markets in transition should also share in the benefits of the organic market. Those wishing to export organic products successfully into the EU and Switzerland need accurate information on the potential of the organic market and the conditions for market access. SIPPO provides this information through manuals and supports the participation on trade fairs.

7. Agriculture and Environment – Mutual Dependencies and Threats

Organising Institution: WWF Switzerland

Background

Expanding agricultural land contributes to the rapid loss of forests, wetlands and grasslands and the goods and services these ecosystems provide. Three quarters of the world's poorest people live in rural areas, where farming has been taken as one of the only option for fighting poverty and malnutrition. Farmers make day-to-day decisions about what to farm and how to do it. Often however, farmers make decisions that are unsustainable. The result is a cycle of increasing poverty and loss of functioning ecosystems. The agricultural research community has developed various tools to mitigate the negative impacts of conventional farming practices. Today, Integrated Pest Management (IPM), Integrated Water Management (IWM), rational use of agro-chemicals, organic farming and many other options are being promoted as practices that contribute to cleaner production and sustainable development.

WWF supports the adoption of these tools and leads several projects around the world where these tools are being promoted to address land use patterns and farming practices. WWF is also seeking to encourage market demand for more sustainably produced goods. The WWF Workshop "Agriculture and the Environment – Mutual Dependencies and Threats" provides the opportunity to exchange experiences between researchers and practitioners. WWF will share its experience from the Forest Conversion Initiative on palm oil production in Indonesia and from the Sustainable Cotton Initiative in Pakistan. The two case studies will provide the basis for discussion among the workshop participants, who are invited to contribute from their perspective.

In the workshop, WWF aims to assess the potential of Better Management Practices (BMPs) to improve environmental gains, and to identify knowledge gaps and research needs.

Programme

<i>Moderation</i>	Nicole Santer, WWF Switzerland
<i>Introduction</i>	Nicole Santer
<i>Presentation 1</i>	Fitrian Ardiansyah, WWF Indonesia Towards Sustainable Palm Oil: Lessons-learned from Southeast Asia
<i>Presentation 2</i>	Hammad N. Khan, WWF Pakistan Sustainable Livelihoods through Environmental Management – A case from cotton production in Pakistan
<i>Discussion</i>	facilitated by Jennifer Zimmermann and Kathrin Dellantonio, WWF Switzerland

Key questions

- Discussion of WWF approach and comparison with other approaches
- How can we assess the effectiveness of water saving in farming through BMPs on a watershed level?
- Which are the best short, medium and long-term biodiversity indicators (especially using high conservation value forests (HCVF) concept in the new established plantation and human-wildlife conflict mitigation)?
- Which are the best socio-economic indicators taking into account the strong relationship between rural poverty and biodiversity?
- A plantation cannot replace a natural forest in terms of biodiversity and environmental services. What economic or other incentives exist/can be developed not to convert areas of high conservation value into other land uses?

Abstracts of Presentations***Oil palm: Curbing a boom to save the forests***

by Fitriani Ardiansyah, WWF Indonesia

Oil palm is one of the fastest expanding crops in the tropics. Palm oil production is expected to double by 2020, as demand for foods and non-food products such as cosmetics is still increasing. Large areas of tropical forests are threatened by conversion to oil palm plantations. WWF, together with other interested parties, has initiated a global multi-stakeholder roundtable process to develop criteria for more sustainable palm oil production, see www.sustainable-palmoil.org. In the field, WWF cooperates with palm oil producers to establish better land use planning and improved plantation management in order to assure that the palm oil boom will not continue at the expenses of valuable forests.

Cotton: Wearing out the environment with a natural fibre?

by Hammad N. Khan, WWF Pakistan

25% of the insecticides traded globally are used on cotton, which accounts for 2.5% of the world's arable land. Three-quarters of the cotton we use every day is grown under irrigation in dry, warm countries, where the degradation of freshwater ecosystems is severe. Water scarcity leads to loss of biodiversity and human suffering due to bad harvest, lack of drinking water and water use conflicts.

WWF 's Sustainable Cotton Initiative promotes water saving measures and reduction of pesticide use together with leading cotton retailers and by implementing field projects in Pakistan, India and Australia.

Contact person:

nicole.santer@wwf.ch

8. Partnerships for Bridging the Food Production Chain

Organising Institutions: Coop Switzerland, Nestlé, Cornell University

Background

Food production is increasingly becoming a system that provides efficient production at farm level and management of the delivery of food products into international trading markets. The food production chain links farm production, processing, packaging, transport, delivery and marketing of agricultural products.

This workshop seeks to explore and discuss ways how “partnerships for bridging the food production chain” can contribute to sustainable agriculture – i.e. the production of agricultural raw materials while at the same time protecting and improving the natural environment and the social and economic conditions of the local producers. The development of production systems that combine agricultural production with natural resource management is a key element of sustainable agriculture. An important strategy to improve the social and economic conditions of the local producers is the development of the markets for their products. Smallholders in the South often operate in loosely organized structures and lack a level playing field in relation to other suppliers. Fair Trade - a trading partnership, based on dialogue, transparency and respect - seeks to strengthen the market position of these marginalized and disadvantaged producers by purchasing products at guaranteed minimum prices. The involvement of all the stakeholders of the food production chain is essential for establishing Fair Trade organisations and products. Fair Trade is also connected with the ecological dimension of sustainable agriculture, as there is a trend towards organic production in Fair Trade products.

Programme

<i>Moderation</i>	Sibyl Anwander, Coop Switzerland
<i>Introduction</i>	Sibyl Anwander
<i>Presentation 1</i>	Glenn Lines, Cornell University, USA Environmentally sound production of indigenous red rice in Madagascar and entry to domestic and international markets
<i>Presentation 2</i>	Eduard Bruckner, Nestlé Switzerland The Sustainable Agriculture Initiative
<i>Presentation 3</i>	Denise Stadler, Coop Switzerland Coop and Max Havelaar
<i>Discussion</i>	Discussion of the workshop key questions

Key questions

- What is the role and the potential leverage effect of key global food companies in fostering sustainable agriculture?
- How can the establishment of cooperatives of small scale farmers in developing countries be stimulated and how can these cooperatives be linked to the different stakeholders of the food production chain?
- Fair Trade: Niche products for the sensible and concerned consumer or a route to a new paradigm of trading with developing countries?

Abstracts of Presentations

Environmentally sound production of indigenous red rice in Madagascar and entry to domestic and international markets

by Glenn Lines, Cornell University, USA

The *Koloharena* Confederation, a national advocacy organization that was initiated by CIIFAD under the USAID Landscape Development Interventions project in Madagascar, currently numbers 30+ farmer cooperatives. Each cooperative regroups smaller producer associations (10-20 members per *Koloharena* association) that are committed to increasing small-farm income using environmentally-sound farming methods and sustainable natural resource management techniques.

One of the tools they use to obtain these objectives is the System of Rice Intensification (SRI). This method for producing rice was developed in Madagascar and is promoted there by the NGO Association Tefy Saina, which has been a CIIFAD partner since 1994, and which has assisted in training *Koloharena* members. The dissemination of SRI is largely a grassroots movement driven by local NGOs and farmer organizations, although government agencies and donors are now beginning to support it. There are currently 20+ countries that we know of, that are using SRI methods to produce rice. Using SRI, farmers are increasingly producing surpluses and looking for markets for their organic, traditional rice varieties. Most are subsistence farmers who sell exclusively to their neighbors, and they and their NGO partners have little or no experience in entering more sophisticated domestic or international niche markets. It is essential that marketing support occur in tandem with production if farmers and the environment are to benefit from this system.

The export of *Vary Mena* (an indigenous red rice) to Italy has already begun. This was intermediated by the Slow Food movement that provided financial support for farmer participation at an international food fair (*Salone del Gusto*) that was held in Turin, Italy in October 2004. Slow Food also made an in-kind equipment grant to the *Hanitriala Koloharena* cooperative to help farmers improve their packaging and quality control. With continued marketing and extension support, the expectation is to produce about 300-500 tons of Malagasy red rice in the next couple of years.

Partnerships like this help increase production of indigenous rice varieties in an environmentally friendly manner, assist local farmers in preparing and packaging it, and provide entry to domestic and international markets. The *Koloharena* farmer movement in Madagascar, like others in Cambodia and Sri Lanka, are actively seeking to develop partnerships like this so that they can effectively "Bridge the Food Production Chain."

Nestlé with a new sourcing concept for agricultural raw materials

by Eduard Bruckner, Nestlé Switzerland

Nestlé, as a large international active food and beverage company, is confronted with special challenges in the supply chain and has to respect changing consumer expectations. To cope with those challenges, the company has started a new concept for its sourcing practices.

The Nestlé internal strategies when sourcing raw materials from farmers directly as well as the SAI Platform, the common initiative of the food industry to support sustainable development in agriculture in general, are presented and discussed. This includes hints concerning an evaluation to measure sustainability at farm level.

Coop and Max Havelaar

by Denise Stadler, Projectcoordinator Coop Naturaplan and Max Havelaar, Switzerland

In 1992, Coop began cooperating closely with the newly founded Max Havelaar Foundation (Switzerland), an organization that campaigns for fair trade worldwide. The range of products sold under the Max Havelaar quality label now comprises over 50 items and is being constantly added to. The range includes many fresh fruits, coffee, rice, honey, roses and much more.

Max Havelaar products guarantee fair wages for the producers, a fair trade premium that goes towards improving their living and working conditions and in most cases purchases guarantees and upfront financing as well. In addition to the social aspects of their production, the environmental aspect of fair trade products are also becoming increasingly important. More and more of the products in Coop's fair trade range are therefore organically produced as well.

Since February 2004, all bananas sold at Coop have carried the Max Havelaar fair trade quality label, enabling Coop to further expand its position as the world's largest retailer of fair trade products. Furthermore, since April 2005, almost 100 percent of all roses at Coop are sold with the fair trade label.

In no other country are as many fair trade products sold as in Switzerland and Coop now accounts for over one-sixth of all fair-trade products anywhere in the world.

9. Access to International Agriculture Science and Technology Information

Organising Institution: Food and Agriculture Organisation (FAO) of the United Nations, Rome

Background

Science and technology underpin agricultural development, yet mechanisms for the documentation and dissemination of the technology outputs of science are often weak. As a result, the outputs of research are often inadequately recorded, and are not disseminated effectively to the farmers, policymakers and others who need to be aware of and apply them. The traditional mechanisms of implementing science and technology are being supplemented, and sometimes even replaced, by networks and initiatives that cut across organizational structures and political boundaries. These different mechanisms have diverse approaches to capturing and disseminating research outputs through agricultural knowledge and information systems. This workshop will review processes and mechanisms for enhancing access to information, and consider the ways in which modern information technologies are facilitating and influencing change in this area.

Programme

<i>Moderation</i>	Anton Mangstl, FAO, Italy
<i>Introduction</i>	Anton Mangstl Frameworks and mechanisms for global exchanges of agricultural science and technology information
<i>Presentation 1</i>	Elizabeth Dodsworth, CAB International, UK New models for access to international peer-reviewed literature in agriculture
<i>Presentation 2</i>	Barbara Aronson, WHO Cross-sectoral links in access models between agriculture and human health
<i>Presentation 3</i>	Dorothy Mukhebi, ASARECA, Uganda Constraints and priorities at national level in Africa for improving access to information
<i>Presentation 4</i>	Jean-Francois Giovannetti, GFAR, Italy Global partnerships for enhanced access to information
<i>Discussion</i>	Discussion of the workshop key questions

Key questions:

- How will knowledge and information systems be enhanced and developed to ensure that the increased range of organizations and actors involved in research and extension will communicate in a coherent way, and avoid fragmentation?
- How can ineffective but entrenched knowledge hierarchies be overturned?
- To what extent are the transaction costs of increased collaboration, communication and information flow acting as constraints, and how can such costs be mitigated?
- How can the huge potential of modern information and communication technologies (ICT) help to make available the outputs of agricultural research to the poor and marginalized, instead of simply adding a new dimension to poverty and hunger?

Abstracts of Presentations***Frameworks and mechanisms for global exchanges of agricultural science and technology information.***

by Anton Mangstl, Food and Agriculture Organization of the United Nations (FAO), Italy

A key challenge facing most agricultural research organizations is access to, management, and communication of agricultural information. The core competencies of such organizations do not lie in this area, and many organizations lack appropriate organizational structures and infrastructure, as well the appropriately trained human resources, to face this challenge effectively. The stakeholders are diverse, and the pathways for information exchange are complex. The scene is changing fast as stakeholders respond to the pressures of the marketplace and exploit new technologies, with new models emerging. It is essential that existing networks, mechanisms and tools are exploited to the full, and that lessons are learned from others, if organizations are to access information efficiently and effectively. In this instance, FAO is supporting the development of two networks to enable access at the international level and the (sub)national level, namely AGORA and AGRIS respectively.

New models for access to international peer-reviewed literature in agriculture.

by Elizabeth Dodsworth, CAB International (CABI), UK

The world's scientific and technical literature is to be found in peer-reviewed journals that are generally published commercially. Access to this global body of literature has become increasingly costly, and many organizations in the poorer parts have simply been unable to afford the expense. Publishers have recognized this, and have been working to develop access channels that are exclusively reserved for the economically disadvantaged, taking advantage of their web-based digital collections of content to avoid costly paper-based delivery. Under the leadership of FAO and in partnership with over 25 publishers, the AGORA initiative is currently providing free access to over 600 journals on agriculture and related fields to 69 countries. Currently over 400 organizations from 55 countries have registered with FAO for AGORA access. The constraints of poor internet connectivity in the target countries will also be addressed with innovative mechanisms that are being developed to optimize bandwidth usage and use email-based tools to provide offline access.

Cross-sectoral links in access models between agriculture and human health.

by Barbara Aronson, World Health Organization (WHO)

The AGORA model was in fact developed from the HINARI initiative, led by WHO and launched in 2001. WHO led the early discussions with publishers that led to the initial agreements to offer journal content free to the poorest countries. WHO also pioneered the authentication software and technologies to make the secure links with publisher websites and to monitor use. FAO was able to draw on directly on all aspects of the HINARI model, including many of the same publishers. Many of the administrative systems and functions are shared between WHO and FAO, allowing economies of scale and efficient use of scarce human resources. The HINARI/AGORA models are a classic example of cross-sectoral links that have brought together an unrivalled collection of scientific literature for the benefit of the poorest countries in the world.

Constraints and priorities at national level in Africa for improving access to information.

by Dorothy Mukhebi, Association for Agricultural Research in Eastern and Central Africa (ASARECA), Uganda

ASARECA is developing a Regional Agricultural Information Network (RAIN), in response to demand from agricultural research organizations in its member countries. The objectives of this network identified in consultation with the network members are to promote the provision and sustainable management of client-oriented agricultural information throughout the ECA region. Its particular emphasis is on the strengthening of regional capacities to access, generate, exchange, package, disseminate and use this information to further economic growth, using innovative mechanisms and processes by building institutional and personal capacities. ASARECA has established an integrated programme of actions, in close collaboration with international partners, to enhance capabilities and resources at national level, drawing on initiatives such as AGORA and AGRIS.

Global partnerships for enhanced access to information.

by Jean-Francois Giovannetti, Global Forum for Agricultural Research (GFAR), Italy

GFAR was established to facilitate a partnership of the key stakeholder groups involved in agricultural research. A principal goal of the Forum has been the facilitation of the development of a global system for information and communication management for agricultural research for development (ICM4ARD). GFAR is leading a participatory process, in close partnership with international, regional and sub-regional organizations, towards the articulation of demand and the implementation of a coherent plan derived from a shared vision and set of principles. The stage is now set for an inter-regional development programme based on a common set of tools and technology platform that will facilitate access to scientific and technical information on agriculture.

10. Competing Claims on Natural Resources

Organising Institution: Wageningen University and Research Centre, The Netherlands

Background

Competition for natural resources is a major challenge of the 21st Century. Access to land, water and living resources lies at the heart of many local, national and regional conflicts. In developing countries in particular, the food, forest, wildlife, fishery and energy sources that are bound to land and water form the economic base of the peoples' livelihoods. Avoiding conflicts revolves on the negotiation of equitable means for the sustainable exploitation of these resources.

Wageningen UR has identified 'Competing Claims on Natural Resources' as a priority theme in its international research and education portfolio. This presentation outlines the interdisciplinary views and approaches being developed by Wageningen UR, in collaboration with international partners, on this issue.

Science is increasingly being used by interest groups and governments to justify (international) policies in selective manners. Even at local scales, the application of science can have unexpected consequences. Maps, for example, may make conflicting claims transparent that were previously unspoken, and social analyses may reveal hidden meanings and ancestral rights not recognised by existing political structures. The complex questions raised in competing claims issues demand a new type of science that combines the insights from a wide variety of disciplines. The need for new approaches to managing natural resources and resolving conflicts demands translation of understanding into policies that can operate at different scales, as well as tools to pre-test the implications and effects of policy through analysis of scenarios. This will allow visions of how future developments may alter the social, ecological and economic costs and benefits for a variety of stakeholders. Multiple stakeholder platforms and participatory approaches will be central mechanisms and processes in the implementation of the Competing Claims program, including the issues of power relationships at different scales.

Programme

<i>Moderation</i>	Wim Andrisse, Wageningen University, The Netherlands
<i>Introduction</i>	Wim Andrisse
<i>Presentation 1</i>	P.K. Aggarwal, Indian Agricultural Research Institute, India Exploring Trade-offs between Food Production, Socio-economic and Environmental Goals
<i>Presentation 2</i>	J.-P. Müller, CIRAD, France Livelihoods through Environmental Management – A case from cotton production in Pakistan
<i>Discussion</i>	Discussion of the workshop key questions

Key questions

- *Competing Claims* on natural resources and related conflicts are played out at the local level, where the livelihoods of resource users depend on and interact with those very resources. The space for local innovation in natural resource use is embedded at the base of a hierarchy of scales at which different policies are designed and implemented. Additionally, there are other disjunct, but overlapping and interlocking, hierarchies determined by physical, geographical, institutional and social boundaries that are determined by the particular resources and the communities that depend on them. Opening up new space for innovation depends on the simultaneous addressing of constraints at all hierarchical levels.
- We need to redefine the role of scientists as legitimate stakeholders in the process of addressing *Competing Claims* rather than scientists remaining uninformed observers or analysts of the various claims (including knowledge claims). Furthermore, in many public arenas, scientists need to work hard to regain the trust of society after years of ambitious technical promises have led to disappointment and a crisis of confidence in the impartiality of science.
- Scenario studies are a key approach for exploring future options for equitable use of natural resources. The trajectories of different scenarios to be considered need to be grounded in the meanings and uses of resources for different groups of stakeholders, and informed by quantitative analyses. Analysis of trade-offs, complementarities and synergies associated with *Competing Claims* will require new developments in methodology. Scenarios can form the basis for negotiation and development of future options for equitable use of resources.
- We will engage with power issues in land use/natural resource management, and in participatory approaches. In particular we acknowledge that 'win-win' scenarios are not always (indeed rarely) possible, and that all outcomes require negotiation and compromise. Indeed sometimes clear choices must be made, so the potential outcomes lead to clear winners and losers, with decisions overruling the wishes and needs of some stakeholders. Interests of some actors are often not recognised, particularly at the lowest levels so that the suppressed interests of some groups as potential stakeholders need to be identified to prevent exclusion of groups lacking power and influence.

Abstracts of Presentations

Exploring Trade-offs between Food Production, Socio-economic and Environmental Goals

by P.K. Aggarwal, Indian Agricultural Research Institute, New Delhi, India

This presentation describes a decision-support framework developed in the Sysnet project (Eco-regional approaches for land use planning), to explore future land use options based on our present technical knowledge, and anticipated future objectives and constraints. The framework begins with the identification of policy views of the stakeholders in relation to production, income, social issues and environment. This is followed by a detailed land evaluation using relational databases, GIS and remote sensing to capture spatial and temporal variation in soil and climatic resources in the region under study. Considering the current and potential crops and livestock resources of the region, key land use types are defined. Possible production technologies and activities are defined based on the policy goals and socio-economic resources of the region. A technical coefficient generator

utilizing the production function approach is used to estimate production resources required to attain specified yield levels for different land use types and technologies. Options for land use are determined using interactive multiple-goal linear programming.

The usefulness of this framework is illustrated for the state of Haryana in northern India. This region has contributed tremendously to the success of the Green Revolution in India. Regional stakeholders of the state are interested to find optimal agricultural land use plans that can further enhance food production as well as maximize employment and income from agriculture, while minimizing pesticide residues, nutrient losses and groundwater withdrawal. Several exploratory scenarios were designed to understand the scope of improvement for policy formulation and extremes of goal achievement. This involved a change from 'paradise' (no constraints) to progressive addition of constraints of resources and technology adoption. Specific scenarios for 2010 were also evaluated. The results indicated that the state has considerable potential to increase food production provided the availability of irrigation and capital could be enhanced. Sub-regional opportunities and constraints to attainment of goals were quantified. The constraints in implementing this framework in the region will be discussed.

Using companion modelling for compromising competing land-uses: the case of the Causse Méjean

by J.-P. Müller, Ch. Le Page, M. Etienne, Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), Montpellier, France

A multi-agent system was developed to simulate strategies for natural resource management in the Causse Méjean region, a limestone plateau with a rare grassland-dominated ecosystem endangered by pine invasion.

To stimulate the emergence of alternative long-term management strategies for the sheep farms and the woodlands in the area, contrasting dynamic viewpoints on land resources were designed at different spatial scales. To begin with, they were used individually to validate the model with the main stakeholders (foresters, farmers and the rangers of the National Park of Cévennes), to improve it where necessary and to propose individual scenarios of natural resource management. Once the model was improved, the set of viewpoints made it possible to assess the impact of the individual scenarios on the main productive (sheep stocking rate, timber growth) and environmental (endangered species, landscape value) stakes on any spatial entity considered relevant by any stakeholder. As the different opinions were collectively viewed and confronted, the need to agree to a compromise was highlighted and led to new scenarios based on more collective management of the pine woodlands. The results of these alternative scenarios were collectively evaluated anew. This enabled the selection of a set of feasible scenarios stemming from current actors' perceptions and practices and to suggest alternative silvo-pastoral management based on innovative practices.

The presentation shows how the step-by-step approach called 'companion modelling' contributed to improve decision-making by the managers of the National Park.

11. Research and Information Needs of Development Actors in the Field of “Water for Food”

Organising Institutions: Swiss Agency for Development and Cooperation, in collaboration with its partners: Intercooperation (IC), Swiss Agriculture College (SHL), Helvetas, and International Water Management Institute (IWMI)

Background

About 70% of all freshwater withdrawals are used for irrigation and one of the greatest challenges of our time is to provide food and environmental security. A crucial step towards reaching this goal is to increase the productivity of water used for agriculture – getting more crop per drop. Integrated Water Resource Management (IWRM) is coordinated, sustainable development and management of water, land and related resources to maximise equitable economic and social development while protecting the environment. A number of projects supported by SDC promote IWRM, putting people at the centre of development. To operationalise the concept, cooperation between different actors is necessary. This workshop will provide a platform to discuss the collaboration between research institutions, development practitioners and farmers and their experiences with new approaches for integrated water resource management in the context of “water for food”.

Programme

<i>Moderation</i>	Martin Fischler, Intercooperation, Switzerland
<i>Introduction</i>	Willi Graf, SDC, Switzerland
<i>Presentation 1</i>	Ranjitha Puskur, International Water Management Institute (IWMI), India Watershed Management – Protecting livestock-based livelihoods while sustainably managing natural resources
<i>Presentation 2</i>	Lydia Plüss, Helvetas and SHL, Switzerland Local Ownership - Prerequisite for Sustainable Use of Water in Agriculture in Kyrgyzstan
<i>Panel Discussion</i>	Panel discussion of the workshop key questions Panel members: Ranjitha Puskur, IWMI, India Lydia Plüss, SHL, Helvetas, Switzerland Willi Graf, SDC, Switzerland Christoph Studer, SHL, Switzerland Kaspar Grossenbacher, Helvetas, Switzerland

Key questions

- Effective collaboration between research and development actors (communities, facilitating agencies, policy makers) in the field of “water for food”
- Approaches to contribute to the operationalisation of Integrated Water Resource Management

Contact Persons:

Annette Kolff: akolff@intercooperation.ch or Chris Morger: cmorger@intercooperation.ch

Abstracts of Presentations

Watershed Management – Protecting livestock-based livelihoods while sustainably managing natural resources

by Ranjitha Puskur, International Water Management Institute (IWMI), India

Watersheds have become the units and watershed development programs (WDPs), instruments for rural development in rainfed India. The objectives of WDPs expanded from only natural resource conservation to include livelihoods improvement. Livestock production, especially small ruminants, forms a major livelihood activity in semi-arid watersheds, and its importance increases as aridity increases. Due to the limited possibilities of crop production, communities depend to a large extent on livestock production, resulting in high livestock populations which add to the pressure on available land and water. The International Water Management Institute (IWMI) with support from CALPI (an SDC/IC project) and FAO, conducted a study to fill the knowledge gaps which exist with regard to livestock-environment-livelihood interactions in semi arid regions in India. The study found that information and tools are lacking for the watershed development programs and communities at the watershed/village level to plan livestock related activities based on the natural resource availability. Very limited information has so far been available on these interactions. Awareness needs to be created on various factors which have an influence on these interactions and simple tools are required which could be applied at the village/ community level by local institutions while planning watershed development that could aid incorporation of livestock production which is environmentally friendly.

Local Ownership - Prerequisite for Sustainable Use of Water in Agriculture in Kyrgyzstan

by Lydia Plüss, Helvetas and SHL, Switzerland

Following the breakdown of the Soviet Union and the associated collapse of industrial production and land reforms, many Kyrgyz have become farmers with very little (if any) knowledge on farming technologies and management. Helvetas, the Swiss Association for International Cooperation, has been mandated by The Swiss Agency for Development and Cooperation (SDC) to support the development of an agricultural advisory service to render assistance to rural families in this difficult transition period. The Kyrgyz Swiss Agricultural Project has developed solutions to urgent problems in a participatory way. For example, farmers themselves experiment to «find out new things that work» to improve agricultural practices and management with the help of the advisors and (in certain instances) of research, an approach known as "Participatory Technology Development" (PTD). PTD has shown important potentials and benefits over traditional research approaches, but also requires certain prerequisites at farmers', extension agents' and research level. These requirements are illustrated with the example of irrigation PTDs carried out last summer within the Rural Advisory Service RAS in Kyrgyzstan. One major conclusion drawn is that PTD requires a long-term approach and therefore necessitates the involvement of local researchers having a sufficient level of ownership to guarantee motivation over the time. Promotion of networking and close (personal) links between researchers, advisors and farmers assure a continuous information exchange/flow necessary for substantial progress.