GLOBALISATION AND SUSTAINABLE RURAL DEVELOPMENT
DGIS-Wageningen UR Partnership Programme
Annual Report 2009
Summary

1. Introduction
   1.1 General
   1.2 Policy context
   1.3 Programme linkages

2. Theme 1: Sustainable Agro-supply Chains
   2.1. Value Chains for Pro-Poor Development (VC4PD)
   2.2. Facilitating Rural Entrepreneurship

3. Theme 2: Competing Claims on Natural Resources
   3.1 Competing Claims, Competing Models: Understanding (the benefits of) bio-fuel based development models and their impact on resource use negotiations and rural livelihoods in southern Africa
   3.2 Coping with competing claims on water in the Incomati Basin through interactive science (WIBIS)
   3.3 Improving livelihoods and resource management in the Central Rift Valley of Ethiopia (ILCE)
   3.4 Illegal or Incompatible? Managing the consequences of timber legality standards on local livelihoods

4. Theme 3: Sustainable Use of Agro-biodiversity
   4.1 Global study on community empowerment for in situ conservation of plant genetic resources for food and agriculture
   4.2 Improving household livelihood in rural Benin through better utilization of plant biodiversity: Valorisation of sorghum cultivars yielding a natural dye
   4.4 Strengthening livelihoods and local management of plant genetic resources under conditions of climate change
   4.5 The inclusion of community-based agro-biodiversity conservation into value chains and markets

5. Institutional development and capacity strengthening

6. Programme coordination and management

7. Financial report 2009
Summary

The DGIS-Wageningen UR Partnership Programme ‘Globalisation and Sustainable Rural Development’ started in June 2006 for a period of 4 years. The Programme has four thematic focal themes: (1) Sustainable Agro-Supply Chains, (2) Competing Claims on Natural Resources, (3) Sustainable Use of Agro-biodiversity and (4) -as a cross-cutting theme- Institutional Development and Capacity Strengthening. Progress in the reporting year (2009) was largely in line with the activities as planned in the Work Plan 2009 of the programme and is being reported here.

As for Theme 1 ‘Sustainable Agro-Supply Chains’ pilot action research in Uganda (oilseeds) and Ethiopia (sesame), Rwanda ((cassava and potatoes) and Mozambique (rice) continued and new pilots were started in Burkina Faso (karité/shea nut) and Niger (onions). In addition, methodology development under this theme was further elaborated and applied, for example in the (participatory) process of the selection of the new pilots in Burkina Faso and Niger as is reported in Section 2.1 of this report. New too in 2009, is the sub-activity ‘Facilitating rural entrepreneurship’ which specifically supports the country focus initiative of our partner Agri-ProFocus (see Section 2.2).

The four projects under Theme 2 ‘Competing Claims on Natural Resources’ address issues related to the competition between (i) The cultivation of bio-fuel crops and food crops in South Africa and Mozambique (Section 3.1), (ii) Trans-boundary re-allocation of water in the Incomati River Basin of Mozambique, South Africa and Swaziland (Section 3.2), (iii) Land use planning, livelihood improvement and resource management in the Central Rift Valley of Ethiopia (Section 3.3) and (iv) Governance mechanisms on timber legality standards for sustainable local livelihoods in Ghana and Indonesia (Section 3.4).

Early in 2009, a Call for Proposals under Theme 3 of the Partnership Programme ‘Sustainable Use of Agro-biodiversity’ was launched and resulted in the selection and subsequent implementation of four agro-biodiversity projects, by mid 2009: (i) Community empowerment in plant genetic resources management (Section 4.1), (ii) Community climate response for plant genetic resources (Section 4.2), (iii) Dye-sorghums in Benin (Section 4.3) and (iv) Community based agro-biodiversity conservation in value chains (Section 4.4).

In 2009, a start was made in compiling and analysing lessons learned in terms of ‘Institutional Development and Capacity Strengthening’ activities under the three main themes of the Partnership Programme for further targeting of the programme’s efforts in this area (Chapter 5).

General coordination and management issues related to the programme are being summarized in Chapter 6, whereas an overview of the programme’s expenditures in 2009 is provided in Chapter 7 of this Annual Report.
1. Introduction

1.1 General

The DGIS-Wageningen UR Partnership Programme ‘Globalization and Sustainable Rural Development’ (2006-2010) aims to contribute effectively to poverty alleviation, food security and livelihood improvement for the world’s (rural) poor by means of targeted research, institutional development and capacity strengthening. Through the Partnership Programme, the Netherlands’ Directorate-General for International Cooperation (DGIS) and Wageningen University and Research Centre (Wageningen UR) aim to make tangible contributions to the achievement of the Millennium Development Goals, MDG1 (Eradicating extreme poverty and hunger), MDG7 (Ensuring environmental sustainability) and MDG 8 (Developing global partnerships for development) in particular.

The Partnership Programme has three interlinked thematic areas that cover critical aspects of globalization processes: (1) ‘Sustainable Agro-Supply Chains’, (2) ‘Competing Claims on Natural Resources’, (3) ‘Sustainable Use of Agro-biodiversity’. ‘Institutional Development and Capacity Strengthening’ forms a cross-cutting theme. The partnership develops practical recommendations for policy formulation and new models for livelihood improvement, rural entrepreneurship and sustainable management of natural resources including biodiversity. Through these recommendations the partnership provides science-based support to public and non-governmental research and development organisations, as well as to the private sector, both in the South and in the North. The geographic focus of the Partnership Programme largely follows the priority regions and countries of DGIS in sub-Sahara Africa. The programme is funded through financial contributions from DGIS/DME (Directorate Environment, Water, Climate and Energy) that are being matched by in-kind contributions from Wageningen UR and its partners. The DGIS contribution is € 5 million for the first 4 years of the programme. Matching contributions by Wageningen UR are 35% in the years 2006-2007 and 25% in 2008-2010. Coordination at programme level is shared between DGIS/DME and Wageningen International of Wageningen UR. Overall management is with Wageningen International.

Projects under the Partnership Programme are being selected for implementation through the mechanism of Calls for Proposals within each of the three thematic areas. For Theme 1 ‘Sustainable Agro-supply Chains’ and Theme 2 ‘Competing Claims on Natural Resources’ these calls were launched in previous years. For Theme 3 ‘Sustainable Use of Agro-biodiversity’ a Call for Proposals call was launched early in 2009 and the four projects approved could start implementation by July/August 2009.

This Annual Report summarizes progress made and output generated in 2009 in the framework of these sub-activities and projects. More-elaborate reports per sub-activity are available with the Programme Secretariat and with the various Project Coordinators. General information on the Partnership Programme, its activities, outputs (e.g. reports and policy briefs) and (previous) annual reports is also available through the programme website: www.dgis.wur.nl.

1.2 Policy context

The Partnership Programme feeds into the heart of the recently renewed impetus placed on agriculture as an engine for economic development as advocated by the publication of the World Development Report 2008 ‘Agriculture for development’. In fact, this World Bank report was the last and most authoritative in a series of reports by international donors and development organizations including DFID, FAO, OECD and others calling for new attention for the pivotal role of agriculture in (rural) development.

As for Africa, activities of the Partnership Programme also feed into the Strategic Implementation Pillars as defined in NEPAD’s Comprehensive Africa Agriculture Development Program (CAADP), Pillars 1 ‘Land and water management’, 3 ‘Food supply and hunger reduction’ and 4 ‘Agricultural research, technology dissemination and adoption’ in particular.

In the Netherlands, the Partnership Programme links with the our government’s policy ‘Agriculture, rural economic development and food security’ as formulated in the joint Policy Paper between the Ministry of Development Cooperation/DGIS and the Ministry of Agriculture, Nature and Food Quality, that was published in 2008. In particular, these links include Track 1 ‘Research and innovation to increase productivity in the context of climate change’, Track 3 ‘Sustainable value chain development’ and Track 4 ‘Improving market access of the Dutch policy.

In February 2010, the Netherlands’ Scientific Council for Government Policy (WRR) published a critical assessment of the (organisation, implementation and effectivity of) the Netherlands’ development cooperation programme. In its conclusions the report, entitled ‘Less pretension, more ambition’ tellingly calls -among other things- for more emphasis on stimulating self-reliance in the agricultural sector of developing countries through the facilitation of market-oriented rural entrepreneurship. The report calls as well for (increased) investments in knowledge, both with respect to international development processes and policy formulation.
and implementation, and with respect to strengthening capacities and institutions in partner countries in the South.

1.3 Programme linkages

The DGIS-Wageningen UR Partnership Programme connects interactively with other development-related projects that are being implemented by Wageningen UR. These include projects of the BOCI and KB programmes of the Netherlands’ Ministry of Agriculture, Nature and Food Quality. Relevant themes under BOCI (‘International Policy Support Research’) include Theme 1 ‘Markets, trade and sustainable rural development’, Theme 2 ‘Conservation and use of biodiversity’, Theme 3 ‘Water for food and ecosystems’ and Theme 5 ‘Competing claims and climate change’. Within the KB programme (‘Knowledge Base Research’) the most relevant themes are Theme 1 ‘Planning and use of the green and blue environment’, Theme 4 ‘Sustainable agriculture’ and Theme 7 ‘Transition processes, institutions, governance and policy’, all of which have important international sub-components. Also, in 2009, researchers involved in activities of the Partnership Programme have contributed to the formulation of a cross-cutting international KB research activity ‘Survival and Innovation in Smallholder Agriculture’ which aims at improving risk and opportunity management in smallholder agricultural production and marketing systems in sub-Sahara Africa, thereby enhancing their adaptive capacity to climate change in particular.

Activities under the Partnership Programme are complementary to some of sub-programmes that are being implemented in the framework of the INREF Programme (Interdisciplinary Research and Education Fund) of Wageningen University. Relevant sub-programmes under INREF –a PhD-based interdisciplinary research programme- include (i) ‘Competing Claims on Natural Resources: Overcoming mismatches in resource use through a multi-scale perspective’ that is being implemented with partners in Zimbabwe, South Africa and Mozambique, and (ii) Co-innovation for quality in agri-food chains, in Benin, Ethiopia and South Africa.
2. Theme 1: Sustainable Agro-supply Chains

2.1. Value Chains for Pro-Poor Development (VC4PD)

Project coordinators:
Dr. S. Vellema and Dr. A. de Jager, Wageningen UR/SSG/LEI.

Project partners:

In the Netherlands (programme team):
- Wageningen UR/SSG/LEI (Ir. G. Ton, Ir. G. Meijerink, Ir. J. van der Mheen, ir. M. Ruyter de Wildt, R. Wiersinga)
- Wageningen UR/WI/CD&IC (Drs. T. Schrader, Ir. S. van Vugt).
- Agriterra (Ir. N. van der Pasch).
- Agri-ProFocus (Ir. H. Bruggeman, Ir. R. Snelder, Ir. W. Goris).

In Uganda:
- Ugandan Oilseed Subsector Platform (OSSUP).
- Uganda Oilseed Producers and Processors Association (UOSPA).
- SNV-Uganda.
- Makerere University, Kampala.
- Embassy of the Kingdom of the Netherlands (EKN)

In Ethiopia:
- Ethiopian Pulse, Oilseed and Spice Processing Exporters Association (EPOSPEA).
- Ambo Farmers Cooperative Union.
- Ethiopian Institute of Agricultural Research (EIAR).
- SNV-Ethiopia.
- Embassy of the Kingdom of the Netherlands (EKN)
- Ffarm, (Facilitating Farmers’ Access to Remunerative Markets: a private company/service provider).
- Kaleb and AgroProm (Ethiopian export companies).

In Rwanda:
- INGABO, Rwandean Farmers Trade Union.
- SNV-Rwanda.
- IFDC International Centre for Soil Fertility and Agricultural Development.
- Institut Supérieur d'Agriculture et d’Elevage (ISAE).
- IPER, Initiative pour la Promotion de l’Entrepreneuriat Rural.
- Embassy of the Kingdom of the Netherlands (EKN).

In Mozambique
- APAC: Associação de Promoção de Agricultura Comercial.
- Eoz (2nd -tier cooperatives and aligned 1st -tier cooperatives).
- Resilience Consultants (W. Beekman).
- Banco Terra (with participation of Rabobank).
- Embassy of the Kingdom of the Netherlands (EKN).

In Burkina Faso
- REKAF (Réseau Karité des Femmes du Burkina).
- CEDRES (Centre d’Études, de Documentation et de Recherches Économique et Sociale).
- CRIGED (Centre de Recherche et d’Intervention en Genre et Développement).
- CAPES (Centre d’Analyse Politique Économique et Sociale).
- Université de Ouagadougou.
- SNV-Burkina Faso.

In Niger:
- ANFO (Association National des professionnels de la Filière Oignon).
- FCMN (Fédération des Coopératives des Producteurs Maraîchers du Niger).
- Galmi Onion Producers Union.
- FUGN-MOORIBEN, a group of 15 producer unions, mostly operating in the Tillabéré region.
- CORFO (Comité d’Orientation et de Régulation de la Filière Oignon).
- ORO/AOC (Observatoire Régionale d’Oignon Regional Onion Observatory/).
- SNV-Niger.
- Oxfam-NOVIB.
- ROPPA (Network of Farmers’ Organizations and Agricultural Producers of West Africa).
Background and project objectives

Enhancing domestic, regional and international value chains is widely recognized as a valuable economic development trajectory in particular where they link and integrate smallholder agricultural producers to markets. Many donors and development organizations, NGO’s, private enterprises and research institutes are engaged in this endeavour. The objective of the sub-programme ‘Value Chains for Pro-Poor Development (VC4PD)’ is to work with practitioners and policy makers on the integration of validated intervention strategies in agro-based value chains. The sub-programme applies an action-research cum development approach that addresses the following key questions: (i) What are the main levers to influence value chain developments toward sustainable development and poverty reduction?, (ii) What are the conditions under which these levers work for specific commodities or in specific contexts?, and (iii) What are the options for policy makers, producer organizations, (international) corporate business managers and development practitioners to plan and use these leveraging interventions in an effective and efficient manner?

The VC4PD sub-programme includes three interlinked components: (i) Experimentation and innovation through the design and implementation of specific action researches, (ii) Capacity strengthening and institutional development embedded in international networks of businesses, producer organizations and donor agencies, and (iii) Learning through monitoring and evaluation, networking and an inventory of existing experiences.

An important starting point of the programme is that pro-poor development is not an automatic outcome of value chain development or market access. Moreover, pro-poor development implies more than generating higher incomes only. It also includes strengthening of: (i) Economic capabilities, i.e. the capability to earn income, to consume, to have assets and to secure access to productive financial and physical resources, (ii) Protective capabilities, i.e. the capability to withstand economic and other external shocks, to cope with insecurity and vulnerability and to respond to seasonal variations, (iii) Political capabilities, i.e. the capability to have a voice and some influence over public policies and political priorities, (iv) Socio-cultural capabilities, i.e. the capability to participate in societal communities away from geographic and social isolation and (v) Human capabilities, i.e. the capability to ensure well-being in terms of health, education, sanitation and shelter, and to improve livelihoods.

The focus of the VC4PD sub-programme is on agri-food chains of non-perishable products, in which chain linkages are needed to aggregate volumes and to coordinate and regulate productive activities and transactions. The agri-food chains selected in our pilots involve economies of scale. Enterprises that are active at the bulking node, as well as those in trading and processing, are central units and this entails a certain degree of vertical integration. In many countries the functioning of agri-food chains is affected by the dismantling of state-led enterprises under privatisation and deregulation policies, as well as by the introduction of new organising principles that try to install alternatives for monopolies or oligopolies. Therefore, the sub-programme’s action research informs decision-making about the possible roles of public agencies in processes or economic (re-) ordering from the perspective of achieving public goals, such as poverty alleviation, food security and improved livelihoods.

Programme approach

The VC4PD sub-programme applies a pilot ‘action-research-cum-development’ approach on selected value chains to explore the mechanisms available to (re-) configure these chains towards pro-poor development. These action researches are embedded in existing value chains and involve all stakeholders in these chains. A specific interest of the programme is to cooperate with Producer Organizations (PO’s) in coping with the developments in value chains and in building capacity among their membership to deal with changing economic realities. In the scouting of novel and promising change processes the programme builds on the networks of Agriterra, Agri-ProFocus, the Netherlands Development Organisation (SNV) and the Netherlands’ Embassies in the countries were pilots have been selected. This approach results in strong interaction with a wide range of stakeholders in Africa.

The pilot action studies are being implemented in close partnership with stakeholders in the six countries concerned, involving smallholders, retailers, processors, traders and knowledge institutions. The research teams work closely together with producer and private sector organizations. This cooperation forms a delicate process of co-innovation, pilot studies, problem analysis, policy development and implementation.

In addition to the on-going pilot studies in Uganda (oilseeds and sunflower chains), Ethiopia (sesame), Rwanda (cassava and other staple foods) and Mozambique (rice), new pilots have been selected for implementation in 2009 in Burkina Faso (karité/shea nut) and Niger (onions). Progress in the six pilot studies is being reported in the sections below.
Activities and outputs in 2009

Project coordination and administrative issues

In 2009, all six pilot studies were up and running. In 2008 and 2009, programme coordination concentrated mainly on the selection, contents and organization of 4 initial pilot studies. In 2009, two additional pilots—in Niger and Burkina Faso—were shaped for implementation as from August 2009. The process involved fine-tuning with partners in the two countries concerned and guiding the project teams towards implementation.

The Value Chains sub-programme aligns very closely with the Agri-ProFocus country focus initiative on ‘Facilitating rural entrepreneurship’. All pilot studies, except for the Karité-chain pilot in Burkina Faso, take place in Agri-ProFocus focus countries. Collaboration with SNV and other Agri-ProFocus partners in the selected countries has been essential for the implementation of the pilot studies. See also Section 1.2 of this report.

In 2009 the programme team, consisting of the two programme coordinators, the coordinators of the six pilot studies and representatives of our programme partners Agriterra and Agri-ProFocus, met two times. Progress of the pilot studies was discussed and planning was adjusted where necessary. Also, cross-project issues were explored as well as the ‘generalisable’ insights for policy and practice. The programme team is responsible for the translation of insights gained in the individual studies into recommendations for policy and practitioners’ networks. In 2009, the programme team engaged in discussions preparatory to a series of programme events planned for 2010.

In 2009, programme management linked pro-actively with parallel and complementary programmes and activities at other Netherlands knowledge institutes that are active in development strategy and practice. End 2009, WUR was one of the founding members of the Partnership Resource Centre (implemented through a grant from DGIS and coordinated by the Rotterdam School of Management) and assembling other business schools—Maastricht and Amsterdam—linked through the Expert Centre for Sustainable Business and Development Cooperation (ECSAD), as well as partners from civil society, business and government. In addition, the results of the programme informed the on-going discussion among peer researchers and dialogues with firms, NGO’s and governments in the context of the Development Policy Research Network’s (DPRN) project ‘Value chains, social inclusion and local economic development’. Furthermore, research in a selection of the countries of this programme served as an input to the recent dialogue and workshop organised under the auspices of the Policy Support Research Programme ‘Cluster International’ (BOCI) of the Netherlands’ Ministry of Agriculture, Nature and Food Quality. Links with international organizations like IIED and UNCTAD were established as well.

In 2009, sub-programme management collaborated with the management of the Partnership Programme in developing a communication strategy. This has resulted in a series of VC4PD briefs and VC4PD research papers that, together with other information on the VC4PD sub-programme, can be downloaded from the partnership’s website http://www.dgis.wur.nl/UK/VC4PD.

Pilot action research

Uganda oilseed sub-sector platform

The pilot study in Uganda focuses on the oilseed sub-sector. In collaboration with the Ugandan Oilseed Sub-Sector Platform (OSSUP), Makerere University and SNV-Uganda substantial contributions were made, in terms of contents and process, to the development of a Strategic Policy Dialogue. OSSUP has now defined three priority areas for policy advocacy and implementation: (i) market coordination, (ii) access to seeds and planting material and (iii) innovative capacity. The pilot action research team prepared policy briefs and research papers in support of the agenda-setting discussion in the OSSUP Platform. The team also supported OSSUP in making this an effective dialogue. In this respect, the high appreciation expressed by the Ugandan government and IFAD, who are jointly designing a public support programme for the oilseed sub-sector, and their commitment to use OSSUP’s agenda as a guideline for this programme, is promising. In collaboration with SNV-Uganda and Makerere University, the team developed a ‘road map’ for OSSUP for the coming 5 years.

In 2009, the Ugandan Oilseed Sub-Sector Platform (OSSUP) succeeded to organise an effective Strategic Dialogue, which resulted from a 2-year process of dialogue and priority setting among the stakeholders assembled in the platform. This process was supported by SNV-Uganda and the research team from Makerere University and Wageningen UR. OSSUP’s argument that a competitive and pro-poor oilseed sector requires targeted policy support and coordinated action was central to this strategic dialogue, and was well received by involved ministries and by IFAD. In 2010, this dialogue will receive a follow-up through a Research & Development Market Place, connecting users and developer of technological solutions in the sub-sector.

Output from the Uganda pilot action research in 2009 includes: (i) research papers and policy briefs informing the Strategic Policy Dialogue, (ii) the Strategic Policy Dialogue itself, (iii) internal discussion papers preparing OSSUP for its future, and (iv) a draft analysis of the performance and function of OSSUP as a model for re-
configuring the oilseed and edible oil chains. The latter analysis will be further substantiated and discussed with OSSUP in 2010.

**Transaction risks in sesame value chains and markets in Ethiopia**

In 2009, both the Public-Private Partnership on Oilseeds and the Ethiopian Oilseed Trade Association (EPOSPEA) played central roles in the strategic dialogues about the institutional configuration of trade in sesame and other commodities. The pilot study investigated and discussed the pro's and con's of existing institutional arrangements in the Ethiopian sesame chains, i.e. contracts and commodity exchange (ECX) with the partners involved in the Public-Private Partnership on Oilseeds and in the Ethiopian Oilseed Trade Association (EPOSPEA). Unpacking these institutional arrangements is motivated by the idea that managing and reducing transaction risks may have pro-poor effects. Vulnerability of sesame producers results from the absence of reliable and timely market information, the monitoring of quality and standards, and the conditions under which contracts are settled or transactions take place. This also constraints the market position of Ethiopian exporters. As a consequence, there are opportunities to create a fit between two sides of the sesame chain. The pilot study provides inputs to cooperating stakeholders about the design options for, and possible risks of, implementing the mentioned institutional arrangements. In addition, the pilot study explores how such arrangements may stimulate trade of organic or fair-trade certified sesame products.

In 2010, the insights from research will be used to further support the dialogue at national level with EPOSPEA and the oilseeds partnership. The institutional design of the sesame chain is still in the start-up phase and therefore research and empirical information support those making strategic decision about the development direction of this sector. The work in 2009 resulted in research reports and briefs on contract farming, and on the model of a Commodity Exchange.

The pilot action research in Ethiopia on sesame value chains and markets is embedded in on-going activities of the Netherlands' supported Public-Private Partnership on Oilseeds and of the Ethiopian Oilseed Trade Association (EPOSPEA). In 2009, our partner SNV-Ethiopia organised linkages with the associated farmers. In the implementation of the Ethiopian pilot project the team collaborates with EIAR (the Ethiopian Institute for Agricultural Research), FFARM (a local farmer-based NGO) and Kaleb, an Ethiopian export firm with a central role in the trade of certified sesame. Ethiopian and Dutch students did their internships and MSc-level thesis research in the framework of our activities. The pilot research project informs on-going discussions between all actors directly involved in managing the transformation of the chain.

**Farmer-led agribusiness clusters in domestic food chains in Rwanda**

In 2009, a whole new dynamic occurred when partners involved in different commodities and from various districts in Rwanda came together to explore and shape the idea of farmer-led agribusiness clusters. An important element of the cluster concept is that farmer organisations play an important role in shaping the right conditions for a process of specialisation of farmers that are still balancing between agricultural production for food security or for commerce. In territory-based clusters, farmers, their organizational, small- and medium enterprises and local governments work closely together to capture the advantages of commercial specialisation based on, for example, the natural resources and organizational capacities available in specific areas. The Rwanda pilot study is embedded in the on-going work of one of the leading organizations in this field, INGABO Farmers Trade Union, in Muhanga District. Here, farmers and small-scale processing units cooperate to create a viable sector accessible and beneficial to resource-poor farmers and to offer (temporary) employment. The lessons from the pilot study are used in a national dialogue, facilitated by SNV, IFDC, Wageningen UR and KIT under the umbrella of Agri-ProFocus, bringing partners from all over the country together. Research in a variety of clusters in which cooperatives play important roles, was conducted in cooperation with the Institut Supérieur d'Agriculture et d'Élevage (ISAE, the Rwandan Higher Institute for Agriculture and Livestock).

The pilot study builds strategic connectivity and foresight capacity in farmer-led and socially-just agribusiness clusters in Rwanda’s agri-food ‘filières’. A start was made with cassava. The research documented the ‘good practice’ of INGABO and the evolving public-private network in the Muhanga district, where a trend towards specialization in cassava can be observed. For small-scale farmers, specialising and investing in one single crop is a risky venture, and the question is how a farmer-led agribusiness clusters set the right conditions for this development direction. The pilot study was further elaborated over 2008, in close interaction with the planned Rwanda country focus initiative ‘Facilitating rural entrepreneurship’ by Agri-ProFocus, (see Section 2.1.2 below). The pilot study also contributes to the wider initiative ‘Joint Action Forums (JAFs) as platforms for public-private dialogue and coordination of economic development processes at district level. This is done in collaboration with SNV-Rwanda and IFDC (International Centre for Soil Fertility and Agricultural Development), in close interaction with staff of the Netherlands Embassy. In 2009, a research methodology was developed, and implemented, in cooperation with staff and students of ISAE. Research is conducted in order to understand what motivates farmers to join cooperatives and farmer-led agribusiness cluster development. The research focused on the collection, use and availability of economic information by associated farmers.

**Land reform and rice-chain configurations in Mozambique**

In Mozambique, the year 2009 was exiting for first- and second-tier cooperatives that are trying-out a new economic organization model for the sourcing and selling of rice. The pilot study in Mozambique is being...
implemented in close collaboration with the members and staff of different cooperatives and of APAC, a Mozambican NGO that supports the work of the cooperatives. Setting-up a cooperative structure aims to provide an answer to the insecure position of smallholder rice farmers. Current developments quite closely follow the Rhineland-model. The question raised by APAC is how such a generic model lands in the specific situation of Mozambique and in Zambezia Province in particular. Several intensive discussions and learning events were conducted with APAC to further detail the precise (assumed) mechanisms in this intervention model. The task of research is to investigate how this cooperative model works in the specific context of Mozambique. The research team is also tasked to discover how the local farmers’ organizations, i.e. the first-tier cooperatives sourcing directly from the farmers, build on their organizational and managerial abilities generated during their struggles around land tenure and their skills in collectively managing an expanding irrigation scheme. The question is how these abilities can become part and parcel of an organizational cooperative structure that is functional to trade and marketing.

A second entry point is how information and transparency inside the cooperative structure can be enhanced, and how this affects the capacities of the first tier cooperatives to purchase rice from farmers. The motivation of rice farmers to actually sell to the cooperatives and not, for example, to keep rice for their own consumption, will be investigated in 2010. The assumption is that organisational dynamics play a role in the decision-making process by farmers. Likewise, the actual process of buying and selling is being investigated in order to understand the motives of farmers to specialize in rice and sell to the cooperative. In addition to SSG/LEI, research input is provided by a part-time researcher from Resilience, based in Mozambique, and research staff from the Chair group Irrigation and Water Engineering of Wageningen University.

HIVOS, a Dutch NGO active in Mozambique, is in the lead of enhancing synergies among local stakeholders and development organizations in the context of the Agri-Profocus Mozambique Country Focus Programme. Through this network and the collaboration with APAC, the pilot study informs the discussion with Rabobank Development and its local branch Banco Terra. The project fits well with the recent re-orientation on equity as proposed by the Netherlands Embassy in Maputo.

**Women networks in karité (shea nut) chains in Burkina Faso**

In 2009, the recently-established women’s network REKAF (Réseau Karité des Femmes au Burkina) and its 40 member organizations started an important strategizing process in the shea nut sector of Burkina Faso. Partly, the network is a response to a number of development interventions by individual women groups that focus on export-oriented processing of shea nut for the cosmetics industry. Members of REKAF observed that these intervention strategies constrain the representation of women at strategic levels and decision making regarding the sector. Also, the focus on women entrepreneurs, i.e. processors, potentially excludes other women that are active in the shea nut sector such as harvesters and collectors. The pilot study in Burkina Faso supports REKAF in discovering its strategic position and in opening an internal discussion on priority interventions and a research agenda. This involves a complex discussion on how to encourage pro-development interventions in the trade of shea kernels for the food industry, in which international food companies control the largest volumes and have the strongest buying power. Another discussion centres on how to make local markets part of development strategies and to encourage horizontal coordination while acknowledging different interests of women. In addition, REKAF is challenged by the question how to approach the ‘Table Filière Karité’ associating exporters, traders, women groups and public officials, with the aim to agree on concrete actions or the ‘Interprofession karité’ initiated by the Government of Burkina Faso. Women feel that they are not well-represented in these types of national structures and men seem to control most of the decision making. In particular, the (interests of) collectors and processors of nuts/kernels were neither included nor represented in strategic policy making and they were largely invisible in projects and networks. The issue of women representation is central to this pilot study, which is particularly relevant for a typical ‘female’ value chain. The discussions within REKAF involve important questions about how to perceive poverty.

REKAF decided to set up a specific -women only- platform to speak with one, strong voice in other shea panels in order to increase its effectiveness in national and international shea institutions. REKAF is convinced that consultation is a strong instrument to solve common problems, achieve its aspirations and develop its own business in the shea sector in Burkina Faso. REKAF combines an endeavour to work on organizational models for representing women at different levels with an outlook to find modalities to negotiate equitable remuneration in different market channels.

REKAF requested the research team to align with them in finding answers to two pertinent questions: (i) What are organizational models and negotiation modalities that enhance the capacity of REKAF to economically empower women at different nodes in shea market chains? And (ii) What are conditions for REKAF and its members to be a partner in economic negotiations and to be able to set the agenda in the enabling environment?

In Burkina Faso, the pilot action research centres on the modes of representation of women in the karité/shea nut value chain. It involves local chain facilitators (from ICDE or Sicarex for example) and researchers with a long history in karité. It also coordinates with on-going PhD-level research in Mali (implemented under the CoS-SIS II programme funded by DGIS). The project collaborates with CEDRES (Centre d’Études, de Documentation et de Recherches Économique et Sociale), CRIGED (Centre de
Recherche et d’Intervention en Genre et Développement), CAPES (Centre d’Analyse Politique Économique et Sociale), the Université de Ouagadougou and SNV-Burkina Faso. The consultation and strategizing meetings with the network were organized with two Burkinabé consultants. Representatives of ministries, NGOs and the private sector made tailored contributions.

‘Peeling the onion’: Making trade hubs work for smallholders in the Tahoua onion belt of Niger

Niger is the largest onion producer in West-Africa. Onions are one of the few products for which this dry, land-locked country has comparative advantages. Niger has long-standing experience with the cultivation and trade of onions. The central Tahoua Region in particular is heavily involved in onion production, processing and marketing. Tahoua is home of the ‘Violet de Galmi’, a purple onion variety which is highly appreciated in regional markets and consumed throughout West Africa. Thousands of rural livelihoods depend on onion production and sales. The pilot study is located in a specialized regional or territorial business system, thus introducing a spatial or geographic dimension into the discussion on how to reconfigure value chains for poverty reduction.

The establishment of trade hubs is a pro-poor interventions, bringing suppliers, traders and supporters closer together and, possibly, altering the terms of trade to the benefit of onion producers. Trade hubs are being initiated in Niger by onion producers’ and traders’ associations, in collaboration with local governments. Farmers’ organizations seek to increase the income of their members by selling, at lower costs, bulk-purchased inputs (e.g. seeds and fertilizer), providing storage space and trading places for its members. They also support the strengthening of the farmers’ negotiation power in the regional market. ANFO (an inter-professional organization) and FCMN -both are partners in the pilot study- are organizational structures that give a voice to the interests of onion farmers. They are also members of PFPN, the national farmers’ organization. Usually, onion markets are informal: ‘under the Neem tree’. The main onion trading centres are in the Tahoua Region. In addition to the present hub in Tsernawa, three more onion trade hubs are foreseen in Tahoua (Galmi, Madaoua and Tamaské). These modern trade hubs are a recent innovation. Both the traditional buying and selling and the modern onion trade hubs are likely to promote horizontal and vertical integration and have the potential to function as engines for chain innovation, farmer empowerment and stakeholder collaboration and coordination.

Around the modern onion trade hubs, local producers’ organizations, their unions and their national federations (ANFO, FCMN) are likely to be involved in complementary innovation processes that include: (i) Organization of producers at higher tier levels, (ii) Input provision to members (seeds, fertilizer, etc.), (iii) Buying of them members’ production and warranty credit mechanisms, (iv) Product bulking and conditioning, (v) Provision of market information and establishing (new) market relations, (vi) Price negotiation with traders and intermediaries, including foreign buyers and transporters and (vii) Intensifying relations with local government and export authorities.

Parallel institutional interventions are taking place as well, such as contract farming and warehouse receipt systems. These may compete or complement this farmer-led initiative. Large farmers and traders, often in combined functions, are involved in organizing small-holder farmers in groups. A variety of institutions (‘rules of the game’) are rapidly evolving. Institutions relate to the roles of intermediaries, farmers’ and inter-professional organizations, traders and enterprises, marketing services, market regulations, etc.

The research question in this pilot is how a primarily logistical intervention, centralizing a number of chain functions in a single space, modifies the ‘rules of the game’ in the onion trade. Also, what are the modalities to include different types of farmers in the reconfiguration of the onion trade, or may certain farmers be excluded, for example on the basis of their degree of specialization or the level of organisation. Several important stakeholders have expressed interest in contributing to the trade hub initiatives and they constitute our network for collaboration: (i) Farmers organizations (ANFO, FCMN, Mooriben, PFPN and ROPPA), (ii) Onion value chain facilitators (SNV, IFDC, FAO and related local business development services), (iii) Research institutes (INRAN, ICRISAT and the University of Niamey and SSG/LEI) and (iv) Agri-agencies that support the farmers’ organizations mentioned above (Agriterra, UPAD) and Oxfam-NOVIB).

The pilot study cooperates with two multi-stakeholder platforms in the onion sector:

- CORFO (Comité d’Orientation et de Régulation de la Filière Oignon) has been initiated as a coordinating platform for all stakeholders in the onion sector with the objective to: (i) organize and regulate the onion filière, (ii) establish relationships with financial institutions, (iii) organize lobby and advocacy activities, (iv) coordinate, propose and prioritize projects and programmes for the onion sector and (v) establish a modern marketing infrastructure (onion bags, labelling, market information system and linkages).
- The Regional Onion Observatory (Observatorio Régionale d’Oignon -ORO/AOC-) as established, in 2003, by the Conference of Ministers of Agriculture of West and Central Africa (CMA-AOC) with the objective to create more favourable conditions for trade between producer and consumer countries through the better organization of regional onion trade.

Programme and methodology development
One of the strengths of the Value Chains sub-programme is programmatic coherency between the pilot studies and an evolving action-research based methodology implemented in the context of agri-food chains. Besides organizational matters, programme management is responsible for maintaining programmatic consistency throughout the 6 pilot studies, to initiate such a discussion among the members of the programme team and to share these insights with policy and practice. In 2009, the programme management prepared four presentations and discussions for the programme team, which includes the project leaders of the pilot studies, in order to build further coherency. Programme management was also involved in designing the newly-approved and implemented pilot studies in Niger and Burkina Faso.

At the level of methodology development, the sub-programme resulted in two papers that will be presented at the 9th Wageningen International Conference on Chain and Network Management (http://www.chainconference.wur.nl/) in May 2010. This conference includes a special track of 3-4 sessions on development impacts. This track is being coordinated by Jos Bijman and Sietze Vellema. In addition, the programme team develops a more systematic approach to explicate the impact models underlying the pilot studies. Programme management shared insights on the synergy between knowledge generation and practice in meetings of the Agri-ProFocus network.

Some concerns

Two of the six pilot studies have been started only recently (August 2009). This implies that, as compared to the earlier pilots, there is less time available for implementation. Nevertheless, the planning of activities in both studies is as ambitious and promising and also the commitment of partners is as strong.

The programme is strongly rooted in various partner networks and, in the various pilot studies we collaborate closely with local partners. The time horizon of these partnerships is 2010-end. The sub-programme engages in strong exchange with the practitioners assembled in the networks of Agri-ProFocus and Agriterra in the framework of the Agri-ProFocus country focus initiative ‘Facilitating rural entrepreneurship’. The programme team works on organizing joint events in 2010.

The relationship of the VC4PD sub-programme with policy and policy makers, DGIS in particular, is not well-defined. For instance, a systematic link to the implementation of the OS/LNV policy ‘Agriculture, rural economic development and food security’ as developed over 2007-2008 is not clear. Guidance from DGIS may help to improve this situation. One of the options recently suggested by DGIS is to organize a seminar or workshop at the occasion of the forthcoming annual meeting of the Donor Committee on Enterprise Development. This will be coordinated with DGIS.

In 2010, the VC4PD sub-programme will team-up with parallel initiatives including the recently-established Partnership Resource Centre, which is being coordinated by Rotterdam School of Management and initiated by ECSAD, the Expert Centre for Sustainable Business and Development Cooperation.
2.2. Facilitating Rural Entrepreneurship

Project coordinator:
Ir. T. Schrader (SSG/CDI)

Country facilitators
Rwanda: Ir. T. Schrader (SSG/CDI)
Niger: Ir. S. van Vugt (SSG/CDI)
Zambia: Ir. H. Nijhoff (SSG/CDI)
Uganda: Drs. J. van Geene (SSG/CDI)

Background and project objectives
In August 2009, a new activity ‘Facilitating Rural Entrepreneurship’ started under Theme 1 of the DGIS-Wageningen UR Partnership Programme. This activity supports the Agri-ProFocus initiative on the Promotion of Farmer Entrepreneurship in which learning and innovation trajectories are being developed around stakeholder teams that are working on themes, sub-sectors, value chains and agribusiness clusters to catalyze agricultural entrepreneurship. In seven selected focus countries at least 40-50 stakeholder teams are being facilitated in the implementation of this initiative. In each of these seven countries, some 5-10 Agri-ProFocus member-organizations are actively engaged in the agricultural sector, thus opening perspectives to make a difference and exploring innovative collaborative arrangements. The common goal of the country focus is to develop joint agricultural entrepreneurship programmes that are demand-driven and that actively involve local partners, especially producers’ organizations.

The first general objective of the country focus programme is to come to ‘joint action’, for example by improving coordination, harmonization and complementarities of existing efforts of Agri-ProFocus members and by developing new (joint) activities. The promotion of agricultural entrepreneurship is the common denominator in these activities. A second objective is ‘learning and innovation’ by linking operational country programmes to learning and innovation activities within the network of Agri-ProFocus and vice versa. This is being done in a policy and practice interface. The Partnership Programme supports these processes in four focus countries: Rwanda, Niger, Uganda and Zambia. In Niger, Rwanda and Uganda the activities are complementary to the VC4PD pilot action researches highlighted in previous sections of this report. In Kenya, Ethiopia and Mozambique the Netherlands’ Royal Tropical Institute (KIT) is the process facilitator. All process facilitators participate in the regular Agri-ProFocus country focus meetings and discussions, including the use of ‘ning’ portals for information sharing and on-line discussion.

Focus countries
Rwanda
Activities in Rwanda, the ‘Rwanda ABCD’ (Agri-Business Cluster Development), are being implemented in the context of a coalition of 10 Agri-ProFocus members and their local partners. In Rwanda, the latter include ISAE (Institut Supérieur d’Agriculture et d’Elevage), IFD (International Centre for Soil Fertility and Agricultural Development) and ILO-COOPAfrica (the ILO Cooperative Facility for Africa, a technical cooperation programme for the promotion of cooperative development in Africa). All these partners are joining forces to promote rural entrepreneurship in the ‘Initiative pour la Promotion de l’Entrepreneuriat Rural (IPER). The aim is to accompany agribusiness initiatives of local economic actors, including farmers’ organizations, processors, traders and others. The IPER initiative oscillates around the dynamics of 15 practical agribusiness clusters, working on different value chains (rice, maize, potatoes, wheat, cassava and honey) in different parts of the country. Information on the Rwanda initiative is available at http://apf-rwanda.ning.com.

Activities in 2009
In 2009 a scoping mission was implemented in Rwanda that involved data collection and stakeholder interviews. In addition, a workshop of agri-business cluster initiators was co-facilitated. In the latter, tools and approaches for agri-business cluster development were shared. Research activities in 2009 included: (i) Development of a self-assessment tool and the participatory self-assessment of 14 cooperatives at two sites and for two commodities (cassava and rice) by an MSc student of Van Hall/Larenstein, (ii) Data collection and analysis at cooperative and farm level, involving 18 ISAE students, and (iii) Implementation of a case study on financial product development for the cassava sub-sector.

Outputs in 2009
ABCD-project output in 2009 includes:
• Inception report: ‘Promoting farmer entrepreneurship through capacity strengthening, agribusiness cluster formation and value chain development in Rwanda’.
• MSc Thesis: ‘Towards more-effective cooperative entrepreneurship: Self-perceptions on the internal functioning and agri-business orientation of cassava and rice cooperatives in Rwanda’. S.P
Nshimiyimana, 2009.
• Presentation and note on ‘navigating business’: ‘Introduction au pilotage entrepreneurial’.

Niger
Early in 2009, a group of Agri-ProFocus member organizations (Oxfam-Novib, Agriterra, ILEA, SNV and Wageningen UR) jointly with their partners in Niger expressed interest in cooperation and in developing joint ideas around topical issues related to agricultural entrepreneurship. Partners in Niger include UPA-DI, INRAN, IFDC-Niger, OSC ‘Organisation de la Société Civile’, a farmers’ organization-, CROP -a local consultancy firm- and the Université de Niamey. Topical issues in Niger include the importance of enabling environments and questions such as: ‘How can farmer entrepreneurship lead to increased food security?’, or ‘How can increased lobbying power of farmer organizations lead to better results and higher impact of their activities?’ Follow-up was given during a partner meeting in Niger (July 2009) that focused on the development of a scoping study on farmer entrepreneurship and food security. Next, in November a multi-stakeholder workshop was organized in Niamey, jointly by the Agri-ProFocus members and the national ‘Plate Forme Paysanne du Niger’ (PFPN), OSC and CROP. In its implementation, the Niger action research project links with National Farmers Days Initiative of Niger, an entry point for innovation and change. Information, outputs, planning and discussions in the framework of the Niger project is being shared through an interactive internet forum (‘ning’) at http://apf-niger.ning.com.

Activities in 2009
In Niger, as in Rwanda, a scoping study was implemented (July 2009), on farmer entrepreneurship and food security. This was done in preparation of a multi-stakeholder platform workshop that was facilitated in Niamey, Niger in November 2009. This workshop was attended by over 65 participants.

Outputs in 2009
Output of the Facilitating Rural Entrepreneurship initiative in Niger, in 2009, includes:

Zambia
In Zambia, the Agri-ProFocus country initiative was initiated in 2009 jointly by Agri-Profocus and Cordaid. Others soon joined the process and the initiative now includes SNV Zambia, IICD, Woorde en Daad, Humana, Heifer, Hivos, Agriterra, and Wageningen UR. In October 2009 a 3-day multi-stakeholder meeting was organized in Zambia, by Agri-Profocus and Wageningen UR, in close collaboration with Cordaid and SNV Zambia. Participants (over 70 in total) included representatives of GART (Golden Valley Agricultural Research Trust), Zambia Dairy Processors Association, Cotton Development Trust, Zambia Honey Council, governmental agencies and other sector/commodity organizations. They mapped-out a joint country agenda on needs and opportunities to promote farmer entrepreneurship, joint actions in specific areas of value chains (honey, cotton, rice, bio-fuels, dairy) and follow-up actions, and roles and responsibilities in the process. Information, planning and outputs of the Zambia entrepreneurship activities are being shared through the interactive discussion forum at http://apf-zambia.ning.com

Activities in 2009
As stated above, a multi-stakeholder workshop was organised in Zambia in October 2009. The meeting resulted in a country framework which contains , among other things:
• A joint analysis of specific issues regarding agricultural development and farmer entrepreneurship
• A draft joint vision and strategy on how the main issues pertaining to the above can be tackled.
• A joint identification of learning opportunities.

Cross-cutting constraints that emerged from the Zambia workshop include: (i) Rural finance, loans and savings, (ii) Extension and business services and technical support, (iii) Good and timely market intelligence, information and linkages, (iv) Understanding costs and benefits per value chain actor, (v) Technology to produce and process quality, (vi) Organization of groups within the value chain/value chain facilitation.

Outputs in 2009
Outputs of the Zambia rural entrepreneurship initiative in 2009 includes:

Uganda
In Uganda, the Agri-ProFocus country process took of in 2009 to increase cooperation and innovation. 13 Agri-Profocus members are actively involved in the process in which Wageningen UR (CDI), SNV and Agri-
ProFocus are taking the lead. The country focus network in Uganda was launched during a 3-day multi-stakeholder meeting in Entebbe in November 2009 in which over 70 representatives from farmer organizations, development organizations, financial service providers, business service providers, the public sector and the private sector participated. Prior to the workshop a synthesis paper on farmer entrepreneurship in Uganda was prepared and discussed on an on-line forum. In the workshop the participants defined and analyzed the critical issues for promoting farmer entrepreneurship which the Uganda network should address and identified possibilities for coordinated action and reached agreement on the way forward, including roles and responsibilities and follow-up steps. Information on the Uganda country focus initiative is available at [http://apf-uganda.ning.com](http://apf-uganda.ning.com).

**Activities in 2009**

Main activity in 2009 under the Uganda Country focus initiative was the Multi-stakeholder workshop that was held in Entebbe, in November 2009. At this workshop, participants explored key issues on farmer entrepreneurship in Uganda which they felt should be addressed, including:

- Financial services (Access and affordability to finance and information on financial products relevant to the agricultural sector)
- Market information (At present low volumes produced by small holder farmers are difficult to market. Moreover market information is not readily available to small holders, while buyers and middle men take advantage.
- Farmers’ organisations (Many farmers’ organisations are under stagnant and non-evolving leadership. Moreover, leadership is often donor- or project driven).
- Farming systems and services (Present agricultural research and advisory services are production-oriented rather than chain-oriented)
- Policy-level engagement (Low budget allocations to the agricultural sector, development of agricultural standards and global and regional competitiveness)

**Outputs in 2009**

Output in 2009 includes:

3 Theme 2: Competing Claims on Natural Resources

3.1 Competing Claims, Competing Models: Understanding (the benefits of) bio-fuel based development models and their impact on resource use negotiations and rural livelihoods in southern Africa

Project coordinators:
Prof. Dr. K. Giller, Dr. M. Slingerland, Dr. J. Andersson and Dr. G. van de Ven (Wageningen UR/PSG/Chair Group Plant Production Systems)

Project partners:

**In the Netherlands:**
- Wageningen UR/PSG/Chair Group Plant Production Systems.
- Wageningen UR/SSG/Chair Group Communication and Innovation Studies, Chair Group Environmental Policy, Chair Group Management Studies, Chair Group Development Economics, Chair Group Agrarian Law; Chair Group Technology and Agrarian Development,
- Wageningen UR/AFSG/ Business Unit Bio-based Products, Chair Group Valorisation of Plant Production Chains

**In Mozambique:**
- Centre for Agricultural Promotion (CEPAGRI), Mozambique.
- Universitas Eduardo Mondlane (UEM), Mozambique.
- Technical Secretariat for Food Security and Nutrition (SETSAN), Mozambique.
- International Institute of Tropical Agriculture (IITA), Mozambique.
- International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Mozambique.
- FACT Foundation (Fuels from Agriculture in Communal Technology; NGO).
- EBL (Energem Biofuels Limited; Jatropha producer/processor).
- SEKAB Biofuel Industries (Sweet sorghum producer/processor).
- World Vision (NGO working on cassava, a.o.).

**In South Africa:**
- Food, Agriculture and Natural Resources Policy Advisory Network (FANRPAN), South Africa.

**In Portugal:**
- Porto University, Portugal

Background and project objectives
The project ‘Competing Claims, Competing Models’ aims to understand the impacts of bio-fuel based development interventions. More specifically, the project seeks to analyse the impact of different bio-fuel production models on rural livelihoods and resource competition in areas of production expansion. The programme focuses on southern Africa and builds on a country case study of Mozambique where presently various bio-fuel initiatives are being developed and promoted, by national and international agencies. These initiatives are being implemented in the absence of detailed assessments of their possible impact - either beneficial or detrimental - on the livelihoods of the rural poor and on the environment. Bio-fuels enter an arena of existing competing claims on natural resources that manifest themselves at various scales and which are trans-boundary in nature. The growing global demand for bio-fuels is adding further pressure and complexity as it leads to additional claims on land and water resources by (multi-) national companies.

Current policy in Mozambique aims to stimulate the production of energy crops in order to foster rural employment and development, as well to address local and national energy needs. Policy on the export of biomass for energy generation is not yet in place and neither is there a comprehensive policy position on the relationship between bio-fuels and (mitigation of) global warming. The Mzambican national bio-energy policy is currently being formulated and in that respect, the research by the ‘Competing Claims, Competing Models’ project is timely in its objective to contribute to it.

In the Netherlands, government policy revolves around the potential benefits of bio-energy in terms of mitigation of global warming. Dutch policy also aims to stimulate the import of biomass for bio-energy conversion in the Netherlands. Certification schemes need to ensure environmental-friendly production of the feed stock. Many Dutch ministries, including those of Environmental Affairs, Economic Affairs, Agriculture and Foreign Affairs/Development Cooperation, are involved in policy formulation and, partly as a result, the relationships between the expansion of bio-fuel production in developing countries and the related...
opportunities and threats for sustainable development are poorly addressed, still. The overriding research question underlying this project is:

Which local, national, regional and international bio-fuel production initiatives favour the inclusion of local stakeholders in the development process and under which conditions are these initiatives most likely to benefit the livelihoods of the local rural population?

Project activities in 2009

The project ‘Competing Claims, Competing Models’ addresses seven (sub-)themes that all have a bearing on the bio-fuel related competing claims issues at stake: (1) Scales, (2) Farmer organisations and contracts, (3) Economy, (4) Jatropha agronomy, (5) Role of knowledge, (6) WTO, Trade, etc., and (7) Food security. Preliminary results from activities under these themes are summarized below.

In Theme 1 of the Competing Claims, Competing Models project (‘Scales’) different scale-levels of cassava processing for food, feed and energy were analysed, in 2008, on their energy and nutrient efficiencies and on potential beneficial by-products. Results now have been reported in an article (Zvinavashe et al. 2009; see list of publications). In 2009 focus was on comparing Jatropha cultivation in plantations (in Bilene) with Jatropha grown in hedges and on farm fields by the FACT Foundation (‘Fuels from Agriculture in Communal Technology’ and ADPP (‘Development Aid from People to People’) two NGO’s active in Cabo Delgado. Results are expected in 2010. In 2009 the assumptions about the production potential of cassava in farmers fields have been verified by sampling of crop mass (yields) and soils in Alto Moloco. A cassava ethanol factory is being planned here.

Under Theme 2 of the project, ‘Farmer organisations and contracts’, a review of contract farming mechanisms in ‘traditional’ commodity chains in Mozambique (cotton, tobacco and cashew) was compiled as these might be useful models for bio-energy chains. The review shows that product characteristics (e.g. perishable products versus long shelf-life, bulkiness, quality grades, market specificity), transaction characteristics (frequency, uncertainty, quality measurement, delivery schemes) and infrastructure and institutional environment (roads, telecommunication, literacy rates, property rights, access to credit, technology and markets) are important factors in determining chain governance and contract forms. Next, in 2009 the results of the study were used to develop a framework to review and assess bio-energy supply chains, including Jatropha in and around farmers’ fields (in Cabo Delgado) in 2009. A similar approach is now planned with regard to outgrowers’ schemes for sugarcane, for implementation in 2010. Farmers’ organisations appear to play critical roles in successfully connecting farmers to bio-fuel chains.

In Theme 3 (‘Economy’) students investigate whether job provision by Jatropha plantations generates sufficient income to compensate for any loss of labour to the family farm. Potentially, the latter may lead to lower on-farm food production and increased food purchases. The students also investigate whether labour peaks in food production do coincide -and compete- with labour peaks in Jatropha harvesting. As, in Mozambique, land acquisition by plantations inevitably means that (smallholder) farmers have to abandon their lands, the students further examine whether compensation, either in cash, in kind, or in land elsewhere, has an effect on the welfare of the farmers involved and on local food security. In 2009, the project conducted studies on the land acquisition processes for Jatropha plantations. We also conducted studies on the labour input by villages into these jatropha plantations. It showed that (male) household members prefer to be employed by the plantations over migration to South Africa. Women, even though facing increased workloads, prefer to have paid jobs above subsistence-farming only.

Under Theme 4 (‘Jatropha agronomy’) the agronomic practices of Jatropha cultivation in Maputo and Manica Provinces have been explored. It shows that the crop’s agronomy is insufficiently known to dare putting smallholder farmers at risk of cultivating the crop. Uncertainties include potential damage due to pests and diseases, production variability and (world) market prices. Such uncertainties render Jatropha cultivation a risky business. Our calculations show that growing groundnuts is more profitable to farmers, while implying lower dependency on a volatile energy market. Energy yields per unit area in terms of Jatropha-based biodiesel were compared with those in fuel wood or charcoal. Our calculations show as well that sustained harvests of natural vegetation (based on annual re-growth) could be as energy-efficient as the production of bio-diesel from Jatropha. In addition, natural vegetation has higher biodiversity value and additional benefits in terms of fruits and medicine, habitat for wild animals, grazing land for domestic animals, etc. In 2009 a study was started to measuring Jatropha growth in relation to soil quality, planting date, plant density and pruning practices. A second agronomy study investigates integrated pest control by using pesticides based on local trees (e.g. Neem Tree) and herbs (e.g. Tephrosa). Results will become available in 2010.

Activities under Theme 5 (‘Role of knowledge’) started, in 2008, in a PhD-level study on the various ways in which different actors (Mozambican and foreign investors, national and international research institutes, NGO’s, donors, etc) think and speak about sustainability and sustainability criteria: ‘Which definitions do they use/prefer?’; ‘How do they intend to make these definitions operational?’ and ‘How do they use scientific knowledge about the criteria?’. The knowledge generated so far, appears to provide an important contribution in the development of the Mozambican bio-fuel policy. In 2010, it will continue to play an important role in the process to develop sustainability criteria for Mozambique by different partners in society.
In Theme 6 of the ‘Competing Claims, Competing Models’ project (‘WTO, Trade, etc’) a desk study was carried out about bio-fuel trade, WTO and certification schemes. The results of this study have been compiled in a Policy Brief and in two published articles (see list of project outputs in the section below).

In Theme 7 (‘Food Security’) an MSc-level study investigated the potential of sweet sorghum to provide food (i.e. the grains) and fuel (the stalks). In this concept cultivation of traditional sorghum varieties should be replaced by sweet sorghum. Another intervention aiming at the production of bio-fuel mass is to increase cassava yields and to use the surplus produced for processing into bio-ethanol. This would lead to income generation from the sale of cassava, and to increased food security. Another way yet is to start Jatropha plantations that provide employment opportunities to local communities while producing energy for export. Again, income generation increases food security although the double burden thus imposed on women may decrease local food production. Planting the Jatropha in hedges would result in low seed yields only, resulting in the production of small amounts of oil, either for selling of for local use as source of energy. This research was completed in 2009. In 2010 the different models studied, and their impact on food security, will be described in a comprehensive article.

Project outputs in 2009

Publications in scientific journals:

MSc Theses:

Policy briefs and background papers:

Conferences and seminars co-organized by the project:
- WOTRO Seminar ‘Biomass for bio-fuel: Opportunity or threat to food and feed security? Case studies for farms in Brazil and Mozambique. February 2009, Wageningen, the Netherlands. Partners from the Eduardo Mondlane University, IITA-Mozambique and ICRISAT-Mozambique were invited to share their expertise with partners from the University of Sao Paolo and of Vicosa both in Brazil and Wageningen University, Netherlands. In this programme a Mozambican PhD student, Wilson Leonardo, has been recruited to perform in-depth studies on farming systems related to bio-fuels in Mozambique.


All staff and students involved in the ‘Competing claims, competing models’ project participate in various workshops, seminars and meetings to share their experiences and results. As an example, the presentations given by one of our students, Marc Schut, are listed below. Many of these presentations contribute directly to policy development for bio-energy in Mozambique and beyond:


Partnerships and linkages
In addition to our regular project partners (CEPAGRI, the Centro de Promoção na Agricultura; UEM, the Universitas Eduardo Mondlane; IITA-Mozambique, the International Institute of Tropical Agriculture; ICRISAT-Mozambique, the International Crops Research Institute for the Semi-Arid Tropics; SETSAN, the Technical Secretariat for Food Security and Nutrition in Mozambique, and FANRPAN, the Food, Agriculture and Natural Resources Policy Advisory Network for Southern Africa) a number of industrial partners joined our initiative in 2009. These include ENERGEM on Jatropha, SEKAB on sweet sorghum. Also, World Vision, an NGO working on cassava, joined the partnership. In 2010 new partners are FACT Foundation and ADPP working with farmers clubs thereby providing another model for bio-fuel implementation and we will work with sugarcane companies on their self-proclaimed successful out-growers schemes.

Project management
In 2009 several visits of project coordinator and staff to Mozambique were made to maintain contacts and to support the students working in the field. A major event was the Bio-fuel Seminar that was co-organised with Eduardo Mondlane University in September 2009. Project staff also managed to make new contacts allowing more in-depth research to be done with partners in the field. In the Netherlands (preliminary) results of the research projects so far were subject of student and staff seminars. These results are also being used in our teaching programmes for BSc, MSc and PhD students. Moreover these results are being shared with WI CD&IC for use in its Competing Claims mid-career training course for professionals from developing countries. NUFFIC is supporting course-participants through NFP fellowships.
Some concerns

New project activities will start in 2010 but a number of unforeseen issues have come to the fore, as follows:

- As a result of the international financial crisis and changing economic perspectives, industrial partners in our collaboration project (e.g. the bio-fuel producing plantations) have cash flow problems. They may, therefore have to change their production practices. As a consequence, results of our researches obtained so far as well as the potential for follow-up research may become problematic, in particular if the continuity of these industrial partners is at jeopardy. This could imply that some of the anticipated social impacts of the project may be less than expected.

- Dynamics in the Mozambican economy are high and people switch jobs frequently, within and between organizations. This implies a need for us to regularly renew our contacts within partner institutions. We are fortunate enough to have one of our PhD students posted in the field, who is very well embedded in the local network and takes responsibility for maintaining channels for information exchange. In addition more frequent visits from the project’s daily coordinator are required.

- Students tend to need more time than expected to finalize their reports. In 2010, three new MSc students will start their fieldwork. Their timely delivery of final reports/theses (i.e. before the end of 2010) cannot be assured. Draft versions however will be available.
3.2  Coping with competing claims on water in the Incomati Basin through interactive science (WIBIS)

Project coordinator:
Dr. P. Hellegers, Wageningen UR/SSG/LEI

Project partners:

**In The Netherlands:**
- Wageningen UR/SSG/LEI
- Wageningen UR/ESG/Alterra
- WaterWatch B.V., Scientific Advisory Consultants, Wageningen
- Waterschap Groot Salland (Groot Salland Water Board)

**In Mozambique:**
- National Directorate of Water (DNA)
- Progressive Realization of the Incomati-Maputo Agreement (PRIMA)

**In South Africa:**
- Department of Water and Environmental Affairs (DWEA, formerly DWAF)
- Water Research Commission (WRC)
- Council for Scientific and Industrial Research (CSIR)
- Tshwane University of Technology, Pretoria
- WE Consult Ltd

**In Swaziland:**
- Department of Water Affairs (DWA)

Background and project objectives

In the Incomati River Basin of Southern Africa many different driving forces are leading to new claims on water. These claims enhance the competition for water between the three countries -South Africa, Mozambique and Swaziland- that share this river basin. Global economic growth over the past decades, the liberalization of world markets and changing national and international policies have triggered the production of bio-fuel crops in the Incomati Basin. Cultivation of these crops is being implemented without due regard to the longer-term availability of water in the basin and to the effects on livelihoods and food security of the local populations. In fact, the increasing production of bio-fuel crops is adding to the already-existing strain on water resources. Ultimately, as a result, consumers may be facing higher food prices. As international trade policies and consumer demands may have bigger impact on cropping patterns and on water use than local water management policies, there is a need to identify more-harmonized policies. Also, there is a need to develop options for local communities to improve their livelihoods while sustaining the basin’s water resources. This requires insight in the implications of national and international policies on water use and water productivity at the various governance levels involved. The main objective of the WIBIS project is to support inter-sector and inter-state (i.e. trans-boundary) policy development for the sustainable use of water resources in the Incomati Basin. Main emphasis of the project is on strengthening local capacity with respect to water valuation and innovative approaches to water monitoring.

Water valuation is a tool to enhance the ability of decision makers to evaluate trade-offs between different policies and courses of social action that alter the use of water and the multiple services it provides. In the framework of the WIBIS project, a decision support tool is being developed and tested, that can be used to assess the implications of different water policies on multiple stakeholders. The decision support tool can support negotiations on water-sharing agreements, as it can explore opportunities to harmonize policies across sectors, i.e. to support integrated water resources management. It can also be used both, to support local innovations for sustainable water use and to provide feedback to initiators of claims that may originate from elsewhere in the world. An example of the latter is the case of the blending targets for bio-fuels that, over the past years, have triggered sugarcane production in Southern Africa. In this respect, the decision support tool is relevant not only for the (developing) countries directly concerned, but also for societies elsewhere, including the Netherlands.

To achieve its objectives, the WIBIS project builds capacity in interactive science: our multi-scale action-research approach is not only focusing on local levels, it addresses higher hierarchical decision-making levels as well. Together with stakeholders in the Incomati Basin we work in a cycle of description, explanation, exploration and design, with each phase feeding into, and supporting, the stakeholder negotiation process. As conflicts around the use of water often result from weak local and national institutions, strengthening of such institutions and the related governance systems is being addressed through institutional development.
Research on complex issues such as water management requires inputs from multiple disciplines. In the WIBIS project we combine the technical expertise of Wageningen UR/ESG/Alterra and WaterWatch (Scientific Advisory Consultants) with the socio-economic expertise of Wageningen UR/SSG/LEI and, in South Africa, the Water Research Commission with the institutional expertise of the Council for Scientific and Industrial Research (CSIR). Our project team represents a wide range of expertise related to water in agriculture, forestry and ecology as well as economical and institutional aspects. The Netherlands' team has ample experience with multidisciplinary approaches to study interactions and competitive effects of policies on land use.

**Project activities in 2009**

In its overall Work Plan 2008-2010 the WIBIS project identified three main groups of activities: (i) Calculation of actual water consumption and associated biomass production of different land use activities, sectors and countries in the Incomati Basin by applying remote sensing techniques in combination with a ‘surface-energy balance model’, (ii) Generating insight into the socio-economic returns to water, taking social concerns such as poverty alleviation, externalities and more-equitable water allocation into consideration, and (iii) Identifying possible improvements in inter-sector and inter-state policy development and sustainable water use in the basin.

In 2009 the WIBIS Discussion Support Tool was made operational. It is now an open-source web application ([http://portal.fieldfact.com/wibiscient](http://portal.fieldfact.com/wibiscient)) with which users can evaluate the implications of land use scenarios. A demo of the Discussion Support Tool is available on DVD as well. The interactive tool is accessible to any authorized user, whereas others can freely browse through the data presented in the tool. On-line, it generates an extensive set of maps with land and water indicators, that are being updated continuously while the user is working. In the current version 15 land use types are distinguished, including 9 productive uses (crop cultivation and forest plantations) and 6 other uses (areas under natural vegetation, built-up land, etc.). The Incomati Basin is subdivided into 24 regions. The user can compare the values of different land and water indicators in wet, dry and average years. For each of the fifteen land use types regional differences in water consumption, biomass production and water productivity can be extracted. Rainfall, reference evapotranspiration, rainfall surplus and existing monitoring data can be displayed for each of the twenty-four regions distinguished. The WIBIS tool can assist in prioritizing land uses and can also be used in a trans-boundary context.

In September 2009, Netherlands project staff (Hellegers, Bastiaanssen) visited South Africa, Swaziland and Mozambique to make preparations, in collaboration with our partners in these countries, for a stakeholder workshop to be held in Swaziland in November 2009. Possible scenarios for interactive assessment during the workshop were developed. The team briefed staff of the Netherlands Embassy in Pretoria and exchanged ideas on possible applications. The team also collected additional climate and land use data as input into the WIBIS model.

Next, in November 2009 the full project team (Hellegers, Jansen, Bastiaanssen and Wilmink) presented the WIBIS Discussion Support Tool at the Water Allocation Workshop organized in Swaziland by our project partners PRIMA (Mozambique) and DWA (Swaziland). More than 40 stakeholders participated, including WIBIS Task Team Members, PRIMA country staff, team leaders of PRIMA-PSP projects, staff of Water Boards in Mozambique (ARA-Sul), South-Africa (ICMA), Swaziland (CMA) and the Netherlands (Waterschap Groot Salland) and a representative of the Netherlands’ Embassy in Maputo, Mozambique. In hands-on sessions participants interactively assessed and evaluated a number of scenarios, including upstream land-use changes. User instructions were provided, as well as WIBIS demonstration DVD’s. Based on responses of the participants the tool will be adjusted in 2010, to better suit the wishes of the local users.

The WIBIS project was also presented at the Second African Water Week that took place in Johannesburg, South Africa, November 2009. This event was organized by the African Ministers Council on Water (AMCOW) jointly with the South Africa Department of Water and Environmental Affairs.

**Project outputs in 2009**

The main project output in 2009 is the interactive web-based WIBIS Discussion Support Tool in land and water development and management. The tool can generate spatially-distributed information on water consumption and water productivity for different land uses, based on a consistent method and impartial information. The WIBIS tool enables stakeholders to –interactively- evaluate alternative land use scenarios, assess the economic water productivity of different land uses within regions or countries, and assess water availability in downstream regions or countries. The tool does not optimize land and water management. Stakeholders themselves have to establish priorities, for example whether to increase land productivity (crop yield/ha), crop water productivity (crop yield/m3 water used), economic water productivity (revenue/m3 water used) and net economic water productivity (revenue/(m3 water used) - costs of water used).
used) or the socio-economic water productivity (e.g. poverty alleviation, job creation). WIBIS is primarily a tool for identification and quick scanning of land use scenarios. It helps stakeholders to study and discuss policy scenarios.

**Some concerns**

In 2009 it has become clear that land use maps and crop classifications are not available for both Mozambique and Swaziland. These maps would be required for the economic analysis module in WIBIS. GeoTerralmage Ltd of South Africa, a consultancy firm, has offered to compile these maps at R 350,000 (approximately € 32,000), additional to the current budget. The WIBIS project management is exploring ways and sources to acquire these funds.
3.3 Improving livelihoods and resource management in the Central Rift Valley of Ethiopia (ILCE)

Project coordinator:
Dr. H. Hengsdijk, Wag UR/PSG/Plant Research International

Project partners:

In The Netherlands:
- Wageningen UR/PSG/Plant Research International.
- Wageningen UR/ESG/Alterra.
- Wageningen UR/SSG/LEI.
- Wageningen UR/ASG.

In Ethiopia:
- Addis Ababa University, Faculty of Science.
- EIAR (Ethiopian Institute for Agricultural Research).
- Horn of Africa Regional Environment Centre and Network (HoA-REC).

In Finland:
- MTT Agrifood Research, Finland.

Background and project objectives

The Central Rift Valley of Ethiopia is a river basin of approximately 1 million ha where poverty and natural resource degradation are firmly intertwined. In their struggle for survival, the rapidly-growing population increasingly over-exploits the basin’s scarce natural resources. Symptoms of resource over-exploitation are the falling water levels of lakes in the Rift Valley, the gradual erosion of wood stocks, the over-grazing of common pastures and decreased land productivity due to lack of proper soil management. In turn, these lead to the expansion of cultivation into marginal and even more-vulnerable lands. On the one hand, recent private investments in irrigated horticulture and floriculture for local and international markets stimulate economic growth and development. On the other hand, these investments claim their share of the limited resource base, especially water and the communal pasture lands adjacent to fresh-water bodies. As the Central Rift Valley is a closed basin, there is no surface in- and out-flow of freshwater. Relatively small changes in water use therefore have great impact on availability and quality of the water downstream. The Lake Shala-Abijata National Park for example, is already being threatened seriously by water extraction upstream, for irrigation purposes. Changing climatic conditions may further aggravate these problems.

There is an urgent need for integrated resource planning and management at different levels, and for the identification of (more-)sustainable land use options. The latter are required, in particular for the rain fed production systems on which the majority of the population depends. Problem owners are all those with a stake in the Rift Valley including (i) Regional authorities (e.g. the Ethiopian Investment Commission and the Ministries of Water Resources and of Agriculture and Rural Development), district administrators (‘woredas’) and municipalities (e.g. the cities Ziway and Meki), (ii) The Central Rift Valley Working Group, a multi-stakeholder platform representing civil society organisations, environmentalists and academia, and (iii) The private sector, including small holder farmers as well as large-scale farm enterprises, and tourism.

The overall objective of the ILCE project is to strengthen the capacity of local authorities, development authorities, research and development organizations and the private sector in the area of natural resource management with the aim to mitigate competing claims on natural resources, and to improve resource management and the livelihoods of the rural population in the Central Rift Valley. The project is being implemented through two complementary PhD trajectories (‘Work Packages’) on (1) Integrated regional analysis and exploration of resource management options and (2) Exploration of the potential for co-investments in sustainable land management. The first trajectory provides quantitative insights into the technical production possibilities and their contribution to more-general development objectives including poverty reduction and food security. Trade-offs between different policy objectives (e.g. poverty reduction and nature conservation) are being quantified and options identified to alleviate tensions in policy ambitions. The second study investigates the policy and institutional bottlenecks that constrain sustainable land management practices. It aims at identifying requirements and opportunities for successful co-investments in sustainable land management in the rift valley. Activities take place in two states (Oromia and Southern Nationalities and Peoples Region). The two work packages are being implemented in close interaction with the ‘Central Rift Valley Working Group’, a multi-stakeholder platform which groups professionals from private and public sector organisations involved in regional development planning.

Project activities and outputs in 2009
PhD studies/Work Packages

Following the development of their research frameworks in 2008, the two PhD students involved in Work Packages 1 and 2, started their fieldwork activities in early 2009. This is done in close collaboration with the ‘Farmer Research Group Project’ of our project partner EIAR, the Ethiopian Institute for Agricultural Research. Mr. Mezegebu Debas commenced his PhD study (Work Package 1) by developing a GIS database, collecting spatially-explicit data and implementing a land evaluation study. Likewise, Mr. Zenebe Admassu (Work Package 2) carried out a rapid rural appraisal and a baseline farm survey (162 farmers) in areas around Butajira and Ziway to explore opportunities for co-investments in sustainable land management practices.

The GIS-based approach to the assessment of the potential for rainwater harvesting in the Central Rift Valley (WP1) was finalized in 2009. Subsequently, a start was made with the writing of two journal articles, a methodological paper and a review paper on rainwater harvesting ponds in the project area. The research on the potential of dairy development (WP2) will be finalized by early 2010. Activities within this work package were delayed somewhat as analysis of biomass samples in Ethiopia took more time than anticipated.

A research proposal was prepared to study the effects of the Ethiopian Poverty Safety Net Programme on sustainable land management practices. An identification study on the performance of, and bottlenecks in, smallholder horticulture was completed in 2009. A paper has been compiled and submitted to a scientific journal.

Research progress

Characterization of farming systems (WP1 and WP2)
Pending the full elaboration of our farm surveys, tentatively four major farming systems are being distinguished in the Central Rift Valley:

Highland cereal/mixed systems prevail in the eastern/south-eastern part of the Rift Valley. These rain fed systems are relatively rich in terms of land holding (3-5 ha on average) with cereals grown in rotation with beans, sorghum and linseed. Mechanised land tillage and crop harvesting are common practice. Rainfall is favourable (800-1000 mm per year), contributing to relatively high cereal yields of 3-4 t/ha. Locally, in particular in the higher lands near Assela a regional centre to the east of the area, cereal cultivation is combined with the production of high-quality fodder for dairy.

Lowland cereal/mixed systems dominate the lower parts the Central Rift Valley near the major lakes. Here, annual rainfall ranges from 600 to 800 mm. Rain fed holdings vary between 1.5 and 2.5 ha and maize and teff are the main crops grown. Rainfed maize yields some 1.5-2.5 t/ha whereas teff yields generally do not exceed 1 t/ha. Some farms have access to river water, water from Lake Ziway or shallow groundwater near the lake. If so, irrigation increases farm incomes considerably: irrigated onion and tomato yields are between 10-15 t/ha. The irrigated holdings measure some 0.25-0.5 ha additional to the rainfed land. Renting additional land is a common practice.

Enset-based mixed systems2 are practiced in the western part of project area around Butajira, where annual rainfall is between 850 and 1150 mm. These farming systems comprise a variety of income-generating activities such as enset, eucalyptus and chat. Enset is used for home consumption, especially in periods when food is scarce. Land holdings are small (often less than 1 ha) mainly because of the high population density. The proximity of Addis Ababa provides employment and marketing opportunities that beyond those for the other farming systems, further away.

Large-scale irrigated production systems, either in the open-field or in greenhouses, are common near Lake Ziway where annual rainfall is 600-800 mm. Since the Ethiopian Government some five years ago began to create favorable investment conditions (tax holidays, cheap land, long-term land lease contracts, etc.) capital-intensive producers started to cultivate vegetables, flowers and fruits in this area. In terms of total land acreage involved, this is a minor farming system but with a large impact on local socio-economic conditions. This is due to the creation of employment opportunities, increased incomes and trade and the dependency on external goods and services. This production system also comprises rich locals that rent land from smallholder water use associations that are not able to manage irrigation schemes or that cannot afford the inputs required this capital-intensive production system. Often, these smallholders are then hired by the leaseholders as labourers.

Households within these farming systems, in particular those in the ‘lowland cereal-mixed’ and in the ‘enset-based mixed’ systems, may be part of the Poverty Safety Net Programme (PSNP). In 2010 research will commence on the extent of the PSNP in the enset-based system area and its impact soil and water conservation investments. Drought is perceived as the major physical constraint by smallholder rain fed farmers. The abolishment of credit services in 2009 for the purchase of fertilizers and other inputs, is a new and emerging economic constraint.

Land use options and adaptation of farming systems (WP1 and WP2)

---

2 Enset: ‘False banana’.
Land use options in the Central Rift Valley, and possibilities to adapt to changing conditions, differ across the various farming systems as described in the section above. Access to irrigation water is the option preferred by those smallholders that avail of land close to freshwater sources. However, given the current over-exploitation of freshwater resources, this option is less desirable from an environmental point of view. Nevertheless, the Ethiopian Government and major stakeholders do not appear to be sufficiently aware of the risks associated with the expansion of the irrigated area (see section on 'Regional hydrology', below).

Given the relatively good quality of the soils and the favourable rainfall in the area under 'Highland cereal-mixed systems', these systems seem to have the best opportunities for further intensification. However, the recent abolishment of credit facilities for fertilizers and other inputs may hamper this development. This area also appears to be well-suited to (expansion of) dairy farming and the associated production of high quality fodder. This option will be further explored under Work Package 1, including a quantification of its economic consequences.

The 'Enset-based mixed systems' in the western part of the study area, seem most adaptive to changing market demands, for example, for chat and eucalyptus. There is a debate on the risks associated with the expansion of eucalyptus within these farming systems that have relatively-small average land holdings. Eucalyptus is usually planted on the most fertile soils ('Vertisols or: Black cotton soils'), that hitherto are commonly used for the production of teff. As teff is an important food crop, declining eucalyptus prices and the resulting lower farm incomes may endanger livelihoods and food security at the farm level, and in particular for farmers that have allocated large shares of their land to eucalyptus. In Work Package 2 the impact of such adaptations in cropping patterns (eucalyptus, chat) will be further addressed.

In the most-vulnerable area of the Central Rift Valley, where 'Lowland cereal-mixed farming systems' predominate, a rapid expansion is being observed of chilli pepper production. Farmers here, have no access to irrigation water except for those few that have (access to) rainwater harvesting ponds. These ponds capture the early-season rainfall which is then used to grow chilli seedlings. At the onset of the main rains the seedlings are sold to neighbouring farmers, thus effectively extending the growing season for the peppers. Market opportunities for the chilli's are amply available, either as fresh chilli’s or dried, as an ingredient for injera, the Ethiopian national dish. In 2010, a dedicated study is planned to gain insight in the extent and impact of this development and to better understand its driving force(s).

**Regional hydrology (WP1)**

Expansion of the area under irrigation is a major driver of rural development in the Central Rift Valley. Due to the limited water resources available, and the impact of over-exploitation on ecosystem goods and services downstream it is, however, also a cause for concern. In 2009 a start was made with the construction of a dam in the Bulbula River, close to the outlet of Lake Ziway. This dam is supposed to raise the water level of the lake with one meter, allowing an expansion of the irrigated area with some 5000 ha. On-site consultations showed that the local inhabitants were poorly informed and thought that either a bridge was being constructed, or a drinking water plant. Regularly, responsible authorities have been invited by the project to explain and discuss the plan for the Bulbula dam in our stakeholder workshops but, so far, to no avail.

In response to the Bulbula plans, the project made tentative estimates of its impact on Lake Ziway. In short, we conclude that the supposed increase in storage of Lake Ziway cannot be achieved without completely closing the lake’s outflow into the Bulbula River. This would have major repercussions for the people and ecosystems downstream of the dam. Also, the expected reduction of the river’s net outflow would seem well-below the environmental flow required to keep the water in Lake Ziway fresh. The implication is that Lake Ziway is at great risk of salinisation, and at relatively short notice. The results of this preliminary assessment have been made available as policy note on the project’s website: ([www.crv.wur.nl](http://www.crv.wur.nl)). Our Ethiopian project partner HoA-REC has taken the initiative to further discuss the issue with the governmental departments involved, in Ethiopia. Within the LNV-OS Project ‘Ecosystems for Water, Ethiopia’ (see section below) a monitoring protocol will be developed and implemented in 2010 to measure water quality in Lake Ziway, in greater detail.

**Potential for rain water harvesting (WP1)**

The Ethiopian Government as well as various civil society organizations support rain water harvesting interventions in the Central Rift Valley and elsewhere in Ethiopia. In 2009, the ILCE project conducted a systematic identification of areas suitable for different kinds of rain water harvesting. In addition, in selected Woredas in our project area, we conducted surveys to identify and evaluate recent rain water harvesting interventions. Outcomes of these surveys support as well the prioritization of suitability criteria for rain water harvesting and the validation of the suitability maps developed. In order to generate suitability maps for rain water ponds and in-situ rain water harvesting a GIS-based/multi-criteria evaluation model has been developed. The model includes six suitability criteria: soil, climate, topography, land cover, climate and groundwater depth for the suitability assessment of rain water ponds. In the case of in-situ rain water harvesting the groundwater criterion is irrelevant. For a full report, please refer to [www.wur.crv.nl](http://www.wur.crv.nl).

The suitability maps show that some 50% (5000 km2) of the study area is highly suitable for rain water ponds. The score is higher still for in-situ rain water harvesting, where 60 % (6100 km2) of the land is highly suitable. The suitability maps provide an easy to understand source of information to quickly identify areas with (high)
potential for interventions. The method applied can be modified easily to incorporate other criteria (e.g. distance to markets) or information with other spatial resolution.

Income impact assessment methodology (WP1 and WP2)

One of the challenging aspects of technological and services interventions is to assess and quantify their impact on the income of adopters. Within the ILCE project an impact assessment methodology is being developed and tested using a project of the International Development Enterprise (IDE) as a case study. This IDE project (‘Rural Prosperity Initiative Fruits and Vegetables Value Chain Development) aims at improving the livelihoods of smallholders through increased productivity and improved marketing of selected high value vegetables and fruit crops. The IDE interventions include the introduction of treadle pumps and drip irrigation systems as well as services provision (e.g. credit facilities, extension services and market information). In our impact assessment we use time series of household surveys and account for exogenous effects such as (annual) price fluctuations and changing weather conditions. As experiences elsewhere show that farmers tend to overestimate their incomes with the length of the recall period it is planned to adjustment the method to avoid this bias. In addition, in view of the interacting and synergistic properties of many technologies, the quantitative assessment of their impact (e.g. on income) needs to be supported by qualitative and causal process information. In this respect, we plan to apply propensity score matching methods in 2010, to evaluate the method under development.

Dissemination, awareness-raising and support activities

In 2009, the project coordinator visited Ethiopia and the project site three times to liaise with the partner organizations, to provide support to the PhD students in their field work and to assist in the organization of project workshops.

The ILCE project and ILCE-related activities were presented at the World Water Forum V in Istanbul, Turkey.

Information on ILCE and ILCE-related work was prepared for the Netherlands’ Minister of Agriculture, Nature and Food Quality, Mrs. G. Verburg, when she visited Ethiopia in November 2009.

ILCE project staff organized two stakeholder workshops in the project area: The workshop ‘Towards a sustainable future of Lake Ziway’ (May 22, 2009; 16 participants) provided feedback to stakeholders on progress and developments since the Participatory Land Use Planning Workshop that was held in December 2008. In the ‘Project Planning Meeting’ of July 12-13, 2009 (35 participants), project outlines were developed for the LNV/OS Project Proposal ‘Ecosystems for Water, Ethiopia’.

A project website, containing all project publications and reports, has been made operational in 2009 (www.crv.wur.nl).

Collaboration and external linkages

In January 2009, the Project Coordinator joined a Wageningen UR mission to Ethiopia that initiated a structural collaboration programme between Wageningen UR, EIAR and the Universities of Addis Ababa, Jimma/Faculty of Agriculture, Haramaya, Mekelle and Hawassa. This mission provided further exposure for the ILCE project during its meetings and a planning workshop in which representatives of the Ethiopian Ministry of Agriculture, the Netherlands Embassy and staff of EIAR and the Ethiopian partner universities took part. A formal MoU covering this collaboration programme was signed in June 2009.

Operational contacts have been established with the Agricultural Economics and Policy Group of Wageningen UR on cooperation in the field of rainwater harvesting in Ethiopia. The initiative will be jointly developed with the Ethiopia Development Research Institute (EDRI) and with IFPRI-Ethiopia.

Contacts with the System-wide Livestock Programme of ILRI-Ethiopia as part of the CGIAR consortium have resulted in the exchange of information on mutual projects. The collaboration with MTT Agrifood Research in Finland has resulted in a joint research proposal ‘Exploring impacts of climate change and adaptation strategies for Ethiopian agriculture’, for which an Ethiopian PhD student has been recruited. The student started formulating his research proposal in August 2009.

The ILCE project has been supporting the development of the LNV/OS project ‘Land use planning programme for the Central Rift Valley of Ethiopia’, which focuses on participatory action-oriented research for development. Where possible, complementary project activities are being combined.

Data and information were exchanged with staff of the Department of Development Studies of the University of Cambridge who are investigating the impact of the floriculture development in Ethiopia on poverty reduction.

In June 2009, our project partner HoA-REC co-organized, jointly with RUFORUM and Wageningen UR (ESG/Alterra and WI/CD&IC), a two-week ‘Regional Course on Climate Change Adaptation’. The course was supported financially by the Netherlands’ programme for capacity development, NUFFIC.

Project outputs in 2009
Papers, reports and models


Some concerns

Major results in terms of peer-reviewed articles of the ILCE project will become available only after the termination of the DGIS-Wageningen UR Partnership Programme.
3.4 Illegal or Incompatible? Managing the consequences of timber legality standards on local livelihoods

Project coordinators:
Prof. Dr. B. Arts, Dr. F. Wiersum (WU/Forest and Nature Policy Group), Ir. H. Vellema (Tropenbos International), Ir. N. Rozemeijer (WI/CD&IC)

Project partners:
In the Netherlands:
- Wageningen UR : Environmental Sciences Group/Alterra.
- Tropenbos International (TBI).

In Ghana:
- Forestry Commission Ghana (FCG).
- Forestry Research Institute of Ghana (FORIG).

In Indonesia:
- Centre for International Forestry Research (CIFOR), Bogor, Indonesia.
- Mulawarman University, Centre for Social Forestry, Samarinda, Indonesia (CSF)

Background and project objectives
The conservation and wise use of tropical forest resources is of global concern. International debate has been focusing on the issue of illegal logging and the legality of timber as a contribution to sustainable management of forests. This is reflected in the Forest Law Enforcement, Governance and Trade (FLEGT) initiative launched by the EU. Part of the initiative is the development of voluntary partnership agreements (VPA’s) with a number of important timber trade partner countries. Central to the VPA processes, and future VPA-based timber trade, is the use of (broadly accepted) Timber Legality Standards (TLS’s) in producer countries such as Ghana and Indonesia. Success of the VPA’s requires the process to include wider social and environmental issues around forestry. An important question here is: how will the enforcement of agreed TLS’s affect the lives of rural communities, especially those dependent on timber extraction and trade for their livelihoods? The ‘Illegal or Incompatible? ’ project aims to strengthen livelihood considerations in forest policy development to enhance its effective implementation.

The specific project objectives are (i) to develop broadly-supported governance mechanisms that manage the consequences of VPA legal timber legality standards on local livelihoods and (ii) to strengthen the capacity of stakeholders to (re-)negotiate institutional arrangements for sustainable resource use in Ghana and Indonesia. The three-year programme involves an action research contribution to current VPA negotiation and implementation and to concurrent forest management reforms in Ghana and Indonesia. This is being achieved through the development of mechanisms for improved policy dialogue and stakeholder participation in a limited number of pilots. In Ghana, the research will take place both, at national level and at local level, in eight communities in the High Forest Zone. These communities were selected as they are also the sites of a parallel EU-funded project on chainsaw lumbering. In order to put the results from Ghana in a wider context, a comparative analysis is being carried out in Indonesia with studies both at the national level and in East Kalimantan Province. The project is being implemented through four interlinked Work Packages as described below:

Work Package 1: New (participatory) tools for valuing the provision of goods and services from forested landscapes and developing different scenarios for optimising forested landscape use in the context of VPA implementation.

Research in this work package aims to obtain information on the status of different landscape units (in Ghana) and the effect on the livelihood of rural people, including their roles in timber production. The information on available, quantified forest goods and services allows for the development of more-informed scenarios incorporating the implications of the VPA on livelihood considerations of forest communities. Also, it will bring to the fore the competing claims that are associated with the (growing) global demand for legally-harvested timber and the subsistence needs of forest-dependent local communities.

Work Package 2: Improved governance mechanisms to manage the consequences of VPA -TLS implementation for local forest-related livelihood strategies.

More-reliable information, such as gathered in Work Package 1, can be used to improved the dialogue amongst the stakeholders competing for scarce forestry resources. It will also facilitate the assessment of
consequences of the VPA process on local livelihoods of forest-dependent communities. In this work package is done on how more and more-reliable information can contribute to improved governance in the forestry sector, including the reconciliation of competing claims on forest land -from global to local- with livelihood strategies of the poor.

**Work Package 3: Improved capacities for constructive stakeholder dialogue on local and district level, fed by ongoing VPA policy dialogue at national level.**

Policy dialogue can be improved by using reliable information (Work Package 1) and by creating an enabling policy environment (Work Package 2) but it also requires skilful facilitation. For the facilitation of policy discussions at local level (in the eight districts selected in Ghana) it is necessary to build capacity among the local process facilitators in particular in skills aiming at visualising issues related to competing claims between international and national timber interests and local-level livelihood needs.

**Work Package 4: Broadened level of information among a wider group of stakeholders in VPA process in Ghana.**

Output from the three work packages described above can only be used effectively used by project partners and stakeholders if the information is packaged and disseminated tailored to the needs of the respective stakeholders. In 2008 a start was made in disseminating information among the stakeholders in the VPA process in Ghana and in the Netherlands.

**Project activities and outputs in 2009**

Output from the four work packages described above takes the form of workshops/seminars and the proceedings thereof, reports, papers and BSc and MSc theses. They are summarized in Table 1 below, and available in full from the project website: [http://www.vpa-livelihoods.org/](http://www.vpa-livelihoods.org/). Hard copies can be requested from the project coordinator: [nico.rozemeijer@wur.nl](mailto:nico.rozemeijer@wur.nl). One-page summaries (‘Output Briefing Notes’) of the key project results have been prepared as well.

**Work Package 1**

The PhD student Kwame Oduro (Ghana) continued his study on ‘Information available on key driving forces accounting for current trends in forests and implications of scenarios for sustainable forest management’.

- The MSc study ‘Assessing the livelihood dependence of local communities on ecosystem services in the Bobiri forest area of Ghana’ by Kwami Antwi (Ghana) was completed.
- The MSc study ‘Access to timber trees for commercial purposes in off-reserve areas in Ghana’ by Marta Dabrowska (Poland) was completed.
- A BSc study on ‘The role of traditional cocoa agro-forestry systems in rural livelihoods in Ghana’ by Christoph Janzing (The Netherlands) was completed.
- A study for the development of a conceptual model on the impact of timber law enforcement on rural livelihoods was made. This model will serve as basis for a comparative survey on FLEGT approaches in Ghana and Indonesia to be made in 2010.
- An overview of past and present research activities on forest livelihood issues in Ghana was made. In follow-up a literature study on ‘Timber legality and livelihood issues and social safeguards in Ghana’ was initiated. This study will result in an annotated bibliography and will be executed in 2010 by a Ghanaian scientist.
- Jointly with Work Package 3 two studies by students of the Trans Disciplinary Platform Approach (TSPA) were completed. For details see Work Package 3.

**Work Package 2**

- A draft paper on ‘Banning illegal logging through FLEGT? A critical policy analysis of the EU-Ghana VPA agreement’ was prepared (Chris Beeko, Ghana Forestry Commission) for submittal to a scientific journal in 2010.
- A working document ‘Good forest governance and social safeguards within EU-Ghana VPA. An exploration of options’ was prepared (A.J. van Bodegom, Wageningen International).
- The MSc thesis ‘The dynamics of multi-stakeholder processes in the negotiation of Voluntary Partnership Agreement in Ghana’ by Bossman Owusu (Ghana) was completed.
- A BSc study on ‘The Ghanaian Timber Industry and the Voluntary Partnership Agreement; Research on the opinion of the Ghanaian exporting timber industry on the VPA’ by Willem Paulus (Van Hall Larenstein) was completed.
- The project-financed student Dody Hernawan (Indonesia) started his MSc study at Wageningen University in September 2009. His thesis will focus on FLEGT in Indonesia and the research (in 2010) will be implemented jointly with CIFOR.
- In collaboration with the Netherlands’ Ministry of Agriculture an MSc study on ‘The meaning of legality in the context of FLEGT’ was initiated. The study focuses on the EU and Indonesia. The study will be carried by the WU student Laura van Heeswijk, who will be seconded to the Ministry of Agriculture.
- Studies carried out in the framework of the EU-financed Chainsaw Lumbering Project (Chainsaw
Milling in Ghana - Context, drivers and impacts; to be published in 2010) and of the Ghana Programme of Tropenbos International are closely linked to the Illegal or Incompatible Project. During formal and informal meetings information is exchanged, synergy is sought and projects are adjusted for optimal results.

- The ToR for a study on annotated bibliography on legality, livelihoods issues and social safeguards in Ghana were drafted. The study will be implemented in 2010 to disclose and synthesize the information already available. It will then be used as an input into the VPA process.

**Work Package 3**

- In April 2009, a one-week training on Monitoring and Evaluation of the multiple stakeholder dialogue process in the Chainsaw Lumbering Project was organized in Kumasi. The activity built M&E capacity with the facilitators guiding the multiple stakeholder dialogue. M&E is increasingly considered as a strategic governance mechanism in the eight pilot districts to better monitor the impact of the multiple stakeholder dialogue to arrive at solutions for illegal chainsaw milling.

- Part of the learning among the facilitators was to reflect on the design process and –using this reflection- jointly formulate a paper. The resulting paper ‘Designing a multiple stakeholder dialogue - initial lessons learnt in navigating conflicts in the Ghana forestry sector’ (Tropenbos International; August 2009. Authors: Seth Kwame Ameraku Duodu, William Koranteng, Rebecca Banning Oppan, Kow Quaison, Mercy Serwah Owusu Ansah, James Parker Mckeeown, Marieke Wit and Nico Rozemeijer (ed.) is available on the project website.

- In May-July 2009, 14 students (7 at BSc-level from Ghana, 7 at MSc-level from the Netherlands) were trained in a three-months course organised jointly by the University of Amsterdam (DHO) and KNUST on VPA-related issues in an interdisciplinary, intercultural and integrated perspective. The students assessed the implications of the VPA on the livelihood of four forest fringe communities near Kumasi. The objective of this student approach labelled ‘Trans-disciplinary Student Platform Approach’ is to bring students from different disciplines and cultures in an interactive learning environment that focuses on a societal issue, and produce a team result in a relatively short time. Field work by the students was supervised and supported by staff of KNUST. The two reports produced feed into the research done by Mr. Chris Beeko of the Ghana Forestry Commission and partner in the Illegal or Incompatible project.

**Work Package 4**

- The project website http://www.vpa-livelihoods.org is operational since the beginning of 2009. So far, the website has been visited by people from: Europe, USA, Finland, Ghana, UK, Nigeria, Australia and Indonesia. (in order of decreasing visitors. The total number of visits in 2009 was 1957.

- Four MSc theses, three research papers and two reports from the student platform approach have been made available on the project website.

- Output Briefing Notes have been prepared on the research carried out in Work Packages 1 and 2, and on training activities (Work Package 3).

- In June 2009, the seminar “The FLEGT/VPA process in Ghana: legality and livelihoods” was organized in Wageningen. The objectives of the seminar were to review the present state of knowledge on the scope of timber legality vis-à-vis the (anticipated) development and livelihood impact of the FLEGT/VPA process in Ghana and to identify key issues for further research and policy development. The seminar was attended by topical experts, policy makers and researchers from Ghana and Europe. Representatives of DGIS and Wageningen UR participated in the seminar.

- In October 2009, a seminar was held in Accra on ‘Social safeguards in the Ghana-EU VPA: Jointly developing a research and development agenda for improved forest governance’. High-level Ghanaian policy makers and researchers attended this two-day seminar, as well as representatives of the EU Delegation in Ghana and the Netherlands’ Embassy. Ghanaian and Dutch researchers participating in the Illegal or Incompatible Project, the Chainsaw Lumbering Project and researchers of Tropenbos International Ghana gave presentations. Proceedings, policy briefs and info sheets on the workshop are under preparation for publication in February 2010. Drafts are available on the project website.

- A web-report on the Accra workshop was prepared as well, with emphasis on four key issues directed at policy makers. (see ‘News’ on www.tropenbos.org).

- The Illegal or Incompatible Project and the Chainsaw Lumbering Project participated in the Chatham House Illegal Logging Meeting (London, June 2009). The policy brief “Chainsaw milling in Ghana. An overview of the issues” (E. Marfo) was distributed.

**Project management**

**General**

Wageningen International (WI/CD&IC) is responsible for the coordination and administrative management of the project. For that purpose, some 6 per cent of the project budget is available. Coordination and management time was spent mainly on planning, reporting, financial management, communication amongst project partners and maintaining the project website. Overall project management is the responsibility of the Project Management Committee that is composed of the coordinators of the four Work Packages (WU/FNP.
The Management Committee met 3 times in 2009. Most of the project partners met twice in 2009: during the seminars in Wageningen (June) and in Accra (October).

WI/CD&IC also manages the project budget on operational costs and travel. Based on individual partners’ work plans allocations are made for implementation of activities in the four work packages. To facilitate coordination and internal communication an internal web-based share point is operational for use by partners to upload and download references and project-related documents: (http://portal.wur.nl/sites/CDICprojects/illegalorincompatible/).

**Adjustments in project planning**

Contrary to the information provided during the project design phase that three years would be available for implementation the actual contractual time span of 2.5 years does not seem sufficient to implement all planned activities. In the current Project Work Plan 2010 it is assumed that the Illegal or Incompatible Project will run until of December 31, 2010 without implications for the original total budget.

Even beyond such a budget-neutral extension there are arguments to extend the project, preferably up to December 31, 2011:

- The VPA between Ghana and the EU has only very recently (November 2009) been ratified by the EU and, as a consequence, implementation activities have stalled. In that perspective, assessing the impact of the Agreement on the livelihoods of forest communities is premature and affecting some of the planned research activities;
- Research activities in this complicated domain have taken more time than anticipated;
- The identification of an Indonesian student and the related collaboration with CIFOR to allow for a comparative study between the VPA process in Ghana and Indonesia has taken more time than expected.

The request for a budget-neutral project extension has been formulated in the Work Plan 2010, and is being emphasised here.
Table 1  Illegal or Incompatible: Summary of project output 2009

<table>
<thead>
<tr>
<th>Project output in 2009</th>
<th>Briefing note available</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessing the livelihood dependence of local communities on ecosystem services in the Bobiri forest area of Ghana, MSc Thesis Prosper Kwame Antwi, Wag. University, April 2009</td>
<td>yes</td>
<td>MSc Thesis available; Ghanaian student graduated</td>
</tr>
<tr>
<td>Access to timber trees for commercial purposes in off-reserve areas in Ghana. MSc Thesis Marta Dabrowska, Wag. University, August 2009</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>The dynamics of multi-stakeholder processes in the negotiation of Voluntary Partnership Agreement in Ghana, MSc thesis Boosman Owusu, Wag. University, August 2009</td>
<td>yes</td>
<td>MSc Thesis available; Ghanaian student graduated</td>
</tr>
<tr>
<td>The role of traditional cocoa agroforestry systems in rural livelihoods in Ghana, BSc thesis Christoph Janzing, Wag. University, May 2009</td>
<td>no</td>
<td>BSc Thesis available; Ghanaian graduated</td>
</tr>
<tr>
<td>The Ghanaian Timber Industry and the Voluntary Partnership Agreement; a research on the opinion of the Ghanaian exporting timber industry on the VPA. BSc thesis Willem Paulus, Van Hall Larenstein, June 2009</td>
<td>no</td>
<td>BSc thesis available</td>
</tr>
<tr>
<td>Forest law enforcement under the Voluntary Partnership Agreement. Implications for livelihoods in Juaso Forest District. Report by TSPA-2009 study team consisting of Ghanaian and Dutch MSc students, August 2009</td>
<td>yes</td>
<td>Two research reports available; 7 Dutch and 7 Ghanaians trained (in interdisciplinary and intercultural context)</td>
</tr>
<tr>
<td>Voluntary Partnership Agreement: Possible impact of the Timber Licensing Scheme on livelihoods of forest fringe communities. Report by TSPA-2009 study team consisting of Ghanaian and Dutch MSc students, August 2009</td>
<td>yes</td>
<td>Two research reports available; 7 Dutch and 7 Ghanaians trained (in interdisciplinary and intercultural context)</td>
</tr>
<tr>
<td>Working document ‘Good forest governance and social safeguards within EU-Ghana VPA. An exploration of options’. A.J. van Bodegom, Wageningen International, October 2009.</td>
<td>n.a.</td>
<td>Paper available on website; will also be published in seminar proceedings</td>
</tr>
<tr>
<td>Various papers presented at seminar/workshop ‘Managing the consequences of timber legality standards on local livelihoods’. Accra, Ghana; October 8-9, 2009: B. Arts and K.F. Wiersum, ‘Illegal or incompatible?’ Managing the consequences of timber legality standards on local livelihoods Check other papers in proceedings</td>
<td>no</td>
<td>Summary available; Proceedings in preparation</td>
</tr>
<tr>
<td>Training on Monitoring and Evaluation of the MSD-process of the Chainsaw Lumbering Project. Kumasi, Ghana; April 2009</td>
<td>no</td>
<td>16 strategically placed Ghanaian stakeholders trained</td>
</tr>
<tr>
<td>Maintenance and regular updating of website <a href="http://www.vpa-livelihoods.org/">www.vpa-livelihoods.org</a> providing an overview of ‘VPA &amp; Livelihood issues in Ghana and Indonesia.</td>
<td>n.a.</td>
<td>All project output is available on website</td>
</tr>
<tr>
<td>Two seminars organized, one in The Netherlands and one in Ghana. Dialogue between academia, policy institutions, development partners, timber industry, civil society and the Forestry Commission</td>
<td>n.a.</td>
<td>Summaries available on website. Proceedings in preparation</td>
</tr>
</tbody>
</table>
Linkage of the activities to poverty alleviation

All project activities are expected to contribute to strengthened livelihood considerations in forest policies in Ghana and Indonesia:

- Research activities in Work Package 1 focus on the status of different landscape units and their effect on the livelihoods of rural people, including their role in timber production.
- Research in Work Package 2 concentrates on assessing the implications of the VPA’s with Ghana and Indonesia on livelihood issues, and building local capacity to strategically interact with the VPA process, in the short and in the longer run. The initial research results do reveal VPA livelihood implications that give reasons for concern. The studies, For example, the studies make it strikingly clear that farmers in and around forest reserves currently benefit predominantly from local but timber resources, illegally. The question thus arises to what extent an effective VPA in Ghana will cut-off these (illegal) livelihood sources and what positive spin-off will be put in place as alternative?
- Information collected in the above work packages feeds into capacity building programmes (Work Package 3) targeting selected partner institutions in Ghana. This is done in order to ensure that multiple stakeholder interests and knowledge sources are duly incorporated in unfolding research and resulting policy debates.
- Collected information feeds into policy debates in both the Netherlands and Ghana and aims to bring to the fore the competing claims on forestry resources and related development between western markets, various institutions in Ghana, including local elites, and the livelihoods of poor people. An informed debate is assumed to improve decision-making that is more equitable in impact.

Linkage of the activities to the development of novel, more-equitable local options for the management of natural resources (improved governance)

Research as carried out under Work Packages 1 and 2 contributes to current VPA negotiations and forest management reforms in Ghana and Indonesia through the development of mechanisms for improved policy dialogue and stakeholder participation. In 2009, a draft paper has been completed featuring a critical policy analysis of the VPA negotiation process and its outcomes. This paper, to be published in 2010, will form the basis for a next paper, on the VPA effects on livelihoods, and a policy document on governance mechanisms to mitigate negative livelihood effects of the VPA.

Concurrently with the Illegal or Incompatible Project, the EU-funded Chainsaw Lumbering Project is implementing an innovative governance mechanism in the form of a multi-stakeholder dialogue at national and district level. Close collaboration between the projects offers ample scope for mutual learning. Research activities under Work Packages 1 and 2 feed into the multi-stakeholder dialogue. In turn, the outcome of this dialogue feeds into VPA debate that, so far, has largely taken place only at the global (EU) and national level. The fact that the VPA process predominantly targets the export sector, whereas the dialogue process targets local markets, makes it important to actively link the two debates and fill knowledge gaps where needed. Both initiatives aim at the same outcome: sustainable forests. The approaches to get there are different, however. The projected trans-disciplinary approach brings scientific and local knowledge together in an iterative process of strategic planning. The added value lies in the increased understanding of (longer term) implications and the subsequent ownership of negotiated solutions which are considered elements of improved governance.
Linkage of the activities to capacity building

Capacity building activities by the “illegal or Incompatible” project in 2009 included:

- Capacity in strategic planning, critical reflection and monitoring and evaluation was built with eight Ghanaian project facilitators and two project coordinators to play a more pro-active role in sustainable forestry-related policy debates and practice.
- Two Ghanaian nationals finished their MSc studies, including VPA-related research. This research was carried out under the supervision of Wageningen University.
- Two other Ghanaian nationals were supported to continue their PhD research related to VPA’s.
- (Inter-) national academia, NGOs and policy makers have access to (preliminary) research outcomes through presentations and papers at two project seminars (Wageningen and Accra) and through the project website: http://www.vpa-livelihoods.org/.
- Seven Ghanaians (BSc-level) were trained in interdisciplinary research in an intercultural context, they attended the course jointly with seven Netherlands’ students from various universities in the Netherlands.
- One Indonesian student has started an MSc study at Wageningen University.

Box 1 The EU-TBI Chainsaw Lumbering Project: Summary of progress in 2009

- The EU-funded project ‘Developing alternatives to illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana’ aims to find sustainable solutions for problems associated with the production of lumber for local timber markets. This is done by involving all stakeholders in dialogue, information gathering and the development of alternatives to unsustainable chainsaw practices. The project’s overall objectives are to (i) reduce poverty and promote viable livelihoods in forest-dependent communities, (ii) reduce illegal logging and (iii) promote the conservation and sustainable management of tropical forests in Ghana and Guyana. It investigates the driving factors and impacts of chainsaw lumbering and the legal, social, political and economic conditions that foster it. Stakeholders are engaged in developing mutually-acceptable solutions to the problems associated with chainsaw milling. A multi-stakeholder dialogue, powered by sound information from research activities, is initiated to reduce conflict and develop a national consensus for addressing problems related to chainsaw milling. Outcomes from this multi-stakeholder process is being piloted in 8 communities in Ghana. The project is being implemented out by Tropenbos International in collaboration with the Forestry Research Institute (FORIG) and the Forestry Commission (FC) in Ghana and the Forestry Training Centre (FTCI) and the Iwokrama International Centre for Rainforest Conservation and Development in Guyana.

- The multi-stakeholder dialogue process is the counterpart activity for the Illegal or Incompatible project. In Ghana the dialogue is organised at national level and supported by district-level meetings. At the national level the project has hired and trained a national coordinator and a facilitator to guide the dialogue process. At the district level eight facilitators/community forestry workers have been recruited and are being trained to facilitate the process. In March 2009 a preparatory workshop was organised and in September and December the first two national multi-stakeholder dialogue meetings were held, followed by district level meetings. The facilitation team was also trained to monitoring and evaluate the process. Capacity building of the various stakeholder groups is an on-going effort of the project. A specific communication strategy targeting the participants in the stakeholder dialogue has been prepared. In 2009, the National Forest Forum (NFF) of Ghana was re-established and the project’s management is now seeking to integrate the multi-stakeholder dialogue into the NFF.

- In 2009 the project also completed its case study on chainsaw lumbering in Ghana. This study was presented at the Regional Meeting of the Chainsaw Lumbering project (May 2009 in Accra), where participants from the region gathered to share information and experiences with and approaches to chainsaw milling in West Africa. More importantly, the information of the case study is being used to inform the dialogue-process. Based this case study, the outcomes from the Regional Meeting and those of a two-day technical working committee meeting (June 2009, in Abono, Ghana), recommendations to control illegal logging in Ghana have been drafted. The recommendations also identify three possible options for policy directions for addressing chain saw milling. In their turn, these options provided the basis for discussions in the multi-stakeholder dialogue.

More information is available on www.chainsawmilling.org
4 Theme 3: Sustainable Use of Agro-biodiversity

4.1 Global study on community empowerment for in situ conservation of plant genetic resources for food and agriculture (‘Community empowerment in PGR’)

Project coordinators:
Dr. M. Thijssen and Ir. K. Verhoosel, Wageningen UR/Wageningen International/ CD&IC-SSG/Centre for Development Innovation.

Project partners:
In The Netherlands:
Wageningen International/CD&IC (Capacity Development and Institutional Change programme).
Wageningen UR/PRI/CGN (Netherlands Centre for Genetic Resources).

In Ethiopia:
- EOSA (Ethio-Organic Seed Action).
- EIAR-Holetta Agricultural Research Centre.
- Haramaya University.

In India:
- M.S. Swaminathan Research Foundation (MSSRF).
- Bioversity International (India).

In Nepal:
- LI-BIRD (Local Initiatives for Biodiversity Research and Development).

In Brazil:
- EMBRAPA (Brazilian Agricultural Research Corporation).
- Federal University of Santa Catharina (UFSC).

Background and project objectives

Community Biodiversity Management (CBM) has been developed as a method to support and empower farmers and their organizations in the sustainable management of biodiversity and to provide benefits to communities at environmental, social and economic level. In CBM, the main focus is on plant genetic resources for food and agriculture, as a key component of biodiversity. Where so far, most studies have addressed the technical, ecological and genetic aspects of conservation in situ and on-farm, the present study focuses on the contribution of community biodiversity management as a method for empowerment, in order to strengthen the scientific basis of the CBM approach. CBM recognizes and supports communities and their local organizations as legitimate and crucial actors in the national plant genetic resources system (PGR), as well as in the wider context of biodiversity and development. Communities are empowered to exercise rights to, and secure access and control over, their genetic resources. This is being pursued by strengthening community-based organizations, local decision-making processes and local governance in the conservation and utilization of agricultural biodiversity. With this focus on empowerment the study contributes to the wider framework of poverty alleviation, food security and environmental sustainability as targeted in the Millennium Development Goals, MDG 1 and 7 in particular.

The present project ‘Community Empowerment in PGR’ analyzes CBM experiences in four countries that are known to play critical roles in the global debate on plant genetic resources: Ethiopia, India, Nepal and Brazil. Project partners in these countries are EOSA (Ethio-Organic Seed Action), Holetta Agricultural Research Centre and Haramaya University in Ethiopia, the M.S. Swaminathan Research Foundation and Bioversity International in India, LI-BIRD (Local Initiatives for Biodiversity Research and Development) in Nepal and EMBRAPA (Brazilian Agricultural Research Corporation) and the Federal University of Santa Catharina in Brazil. All these partners are internationally-recognized leading organizations in the field of community biodiversity management. In addition, the Community Empowerment Project also builds on partnerships of WI/CD&IC and the Netherlands Centre for Genetic Resources (CGN), that have been built previously, in collaboration projects that address capacity building in the sustainable management of plant genetic resources in the four countries concerned.

The specific objectives of the project are: (i) To define the conceptual framework of empowerment within the context of in situ conservation of PGR, (ii) To assess the CBM methodology as a means to empower farmer communities in the context of in situ conservation, (iii) To assess a number of steps or a set of practices of CBM as a means to empower farmers and farmer communities, (iv) To exchange experiences and enable
shared learning on CBM and empowerment at a global level, and (v) To develop a set of best practices to make CBM operational as a methodology to achieve in situ conservation of plant genetic resources for food and agriculture.

Project activities in 2009

The Community Empowerment Project commenced its activities in June 2009. In the sections below, a summary is given of the activities so far and the preliminary results thereof.

Development of a conceptual framework for empowerment

A draft implementation framework for the project was prepared by WI/CD&IC and elaborated by project partners in a project meeting in October 2009, in Chennai, India. The framework includes a monitoring and evaluation component and has been further assessed by subject-matter specialists on quality and relevance with respect to different domains of empowerment. These domains include, among other things, legal expertise to evaluate indicators for legal empowerment as well as chain and marketing expertise on economic empowerment. The framework serves as the basis for the empowerment studies at the four study sites of the project.

Website development

In collaboration with WI/CD&IC expert-staff in communication and e-learning, a project website has been developed, which is operational at www.globalcbm.org. The website is accessible for project partners only. So far, it has been used preparatory to the project meeting in India (October 2009). It will continue to be used throughout the project’s lifetime, enabling partners to communicate and exchange experiences.

Analysis of study sites

Initial analyses of the study sites in Brazil, Ethiopia, India and Nepal were implemented in June-December 2009. For the documentation thereof a special format was developed to include the general context of the study sites as well as detailed aspects related to CBM and empowerment. The documentation is available on the project’s website.

Training programme on plant genetic resources and seeds, Jeypore, India

Students and researchers from all our partner organizations participated the training module on participatory approaches in biodiversity management that was implemented in October 2009, in Jeypore, India. Participants included: 2 persons from Brazil, 1 from Ethiopia, 2 from India and 3 from Nepal. Additionally, the project coordinators and collaborating researchers contributed as trainers to the programme: 3 persons from Brazil, 1 from Ethiopia, 1 from India and 2 from the Netherlands. In the training, research sites of MSSRF-India were used for our field-level study on CBM and empowerment.

Project meeting at MSSRF headquarters in Chennai, India

In conjunction with the training programme highlighted above, a 2½-day project meeting was held in Chennai, India (October 2009). Participants were representatives of the partner organizations, students and researchers already participating in the training module and a number of other professionals: 19 persons in total. They shared and compared the results of the analyses of the study sites through poster discussions. Participants jointly elaborated the framework for empowerment and CBM.

Project outputs in 2009

Conceptual framework on empowerment

A draft framework for empowerment in the context of sustainable agro-biodiversity management was compiled.

CBM methodology, CBM steps and practices and empowerment

Base line studies for the study sites in Brazil, Ethiopia, Nepal and India were completed.

Exchange of experiences and shared learning

- A project website on ‘Community Empowerment in PGR’ is now operational: see www.globalcbm.org
- Experiences in CBM have been shared between partners through the training programme and the project meeting in India.
- Capacity on CBM and empowerment has been strengthened through the participation of students and researchers in the training programme in India
- The curriculum of the Wageningen UR Training Programme on PGR and seeds has been enforced through the critical review and redesign by project partners during the training in India
4.2 Improving household livelihood in rural Benin through better utilization of plant biodiversity: Valorisation of sorghum cultivars yielding a natural dye (‘Dye-sorghums in Benin’)

Project coordinators:
Dr. L. Oyen (Wageningen UR/PSG/CGN/PROTA Network Office Europe) and Dr. Polycarpe Kayodé (Université d’Abomey-Calavi/Dept of Food Microbiology, Bénin)

Project partners:

In The Netherlands:
- Wageningen UR/PSG/CGN/PROTA Network Office Europe.
- Wageningen UR/SSG/Sociology of Consumers and Households.
- Wageningen UR/AFSG/Food Microbiology Laboratory.
- Wageningen UR/PSG/Chairgroup Biosystematics.

In Benin:
- Université d’Abomey-Calavi, Dept of Food Microbiology.
- Université d’Abomey-Calavi, Dept of Plant Production.
- Université d’Abomey-Calavi, Dept of Agricultural Economics.
- Université de Parakou.
- INRAB Centre de Recherche Agricole Nord (CRA Nord), Ina.

Background and project objectives

Livelihoods in rural Benin depend to a large extent on the production of food crops and a few cash crops, mainly cotton and cashew. The government of Benin aims to improve rural livelihoods, increase rural incomes and reduce the dependency on cotton by diversifying agriculture. Dye-sorghums can play a role in achieving this aim. In Benin and its neighbour countries, a group of traditional sorghum landraces are grown specifically for the pigments contained in the leaf sheaths. These pigments, mainly consisting of the anthocyanidin ‘apigeninidin’, are used to dye textiles and as a colorant in traditional African food (e.g. cheese and porridge). Also, the intensely red-coloured extract of the leaf sheaths is an important medicine against anaemia and malaria. While local and regional demand for the dye is high, there is also interest with the large international food and cosmetics industry.

Local producers and processors wish to increase the sorghum’s productivity, its dye content, colour stability and applicability in order to improve their livelihoods. Also, they aim to increase its marketing to improve the viability of their enterprises. In order to facilitate such developments, a concerted investigation of the state-of-the-art is needed as well as an assessment of the possibilities to upgrade productivity, profitability and quality of sorghum pigments. The range of aspects involved warrants a trans-disciplinary effort by stakeholders and scientists.

The traditional sorghum landraces are poorly known. This applies not only to their genetic diversity but also to the sorghum agronomy and to the production properties of the dye. Better understanding of the socio-economic context of dye-sorghum production will lead to better exploitation of the crop’s potential. As it will also facilitate the crop’s future adaptation to ecological changes and it will contribute to diversified and sustainable income opportunities. Better understanding of the diversity of dye-sorghums will support its conservation. As intensification and modernization of crop production always carry the risk of loss of genetic diversity, conservation at this stage is very important. As a cash crop, dye-sorghum fits well into the local farming systems where it is usually grown in mixed systems with staple crops.

Dye-sorghum is ‘traditionally owned’: it is grown, processed and sold by women. In northern Benin, the landraces are generally grown on a small scale by women farmers who plant a few plants around their fields of food-grain sorghum. The harvested leaves are marketed locally by rural women, and the generated income is used to cover household needs. The dye is extracted from the leaves locally, and sometimes it is dried and processed into a powder. The strong demand and current small-scale production system offer ample scope for more efficient production and higher yields.

Research on pigment production in sorghum provides some evidence of the involvement of a fungus (Bipolaris maydis/Cochliobolus heterostrophus) in the process. The fungus is well-known as a pathogen in maize, but it is rarely mentioned in relation to sorghum. In many plants the formation and accumulation of chemical compounds is a common response to stress factors such as fungal diseases. From an agronomic point of view this interaction is all but unique, and making the interaction more productive is a real challenge.
Project activities in 2009

Stakeholder meeting
At the start of the project, in May 2009, a stakeholder meeting was held in Dassa-Zoumé (northern Benin) to collect detailed information on the production of dye-sorghum. This included an inventory of bottlenecks and possibilities in dye-sorghum production. The meeting was also used to fine-tune the project workplan. Some 35 farmers, traders and consumers participated in the meeting. Mostly, the participants originated from Dassa-Zoumé and Parakou, the two main dye-sorghum production areas in Benin. Facilitation was done by the three Beninese project partners. Observations and conclusions of the meeting include: (i) Dye-sorghum is grown mainly as a border crop, exceptionally as a field crop. (ii) Most growers are (elderly) women and hired labour is being used rarely, (iii) Most producers sell their leaf sheaths on the market and buyers include local traders and middlemen from elsewhere in the Benin and even from Nigeria, (iv) Dye-sorghum is a dual purpose crop: the grain is used for human consumption, (v) Dye-sorghums may differ in grain and glume colour, panicle shape and in dye properties and (vi) Dye-sorghum plants are less vigorous, have longer and thicker leaves and smaller and darker grains than grain-sorghums.

An inventory of agronomic practices and a cropping calendar were made: (i) Leaf sheaths are harvested every 5–7 days, until they are too high to be reached. The remaining sheaths are harvested at crop maturity together with the grain, (ii) Dye-sorghum production may interfere with the production of maize and vegetables, (iii) Storage of leaf sheaths is difficult in periods of high air humidity, (iii) Dye-sorghum is considered a remunerative crop. The dye is used in the preparation of many dishes, not only cheese and porridge, the grain is used to make porridge or beer, the stalks are fed to cattle.

Socio-economic survey of dye-sorghum production
In September 2009, a survey was carried out among producers, traders and users of dye-sorghum in 12 villages in central and northern Benin. Questionnaires about production, trade and consumption were made, that took the outcomes of the previous stakeholder meeting into account. The interviews were conducted by students of the University of Abomey-Calavi. Processing and interpretation is part of an MSc-level thesis and will be published in 2010. The student (Desiré Agossou) has past his exams.

Biodiversity of dye-sorghum
In order to obtain a farmers’ view on the biodiversity of dye-sorghums, a survey was carried out among local producers. The questionnaire used was based on the ICRISAT list of descriptors to describe and typify germplasm. As in the socio-economic survey, students of Abomey-Calavi did the interviews, and in the same 12 villages. The results are currently being processed. Seed samples have been collected from all producers interviewed. The samples will be planted in Benin in early 2010 and young leaf material will be analyzed for genetic characterization and for the presence of fungi.

Characterization of plant-fungus interaction
A selection of the seed samples collected for the biodiversity characterization was sent to Wageningen for further analysis of the presence of fungi and their identity in 2010.

Assessment of agronomic development potential

Fertilizer trial
The (possible) interaction between sorghum plants and fungi may affect the plant’s response to agronomic practices such as the use of fertilizers. As little information is available on the management of these interactions, a basic fertilizer trial was designed and implemented in which the response of dye-sorghums to nitrogen, phosphorous and potassium was investigated. The trial was planted at the INRAB Centre de Recherche Agricole Nord in Ina, northern Benin. The experiment was carried out by an MSc student of the University of Parakou. Harvesting was done in December 2009 and significant
differences in leaf sheath size and grain yield were found between fertilizer treatments. The student (Alban M’Po) has past his exams. Analyses of dye contents will be done in 2010, as will the processing and interpretation thereof.

**Stress observations**

In order to obtain a first impression of the effect of stress on dye production in the sorghum plants, a trial was planted in which drought stress was reduced by irrigation and by removing the panicle. Judging from sheath colours the dye production appeared to continue under irrigation, but the chemical analysis (in 2010) has to confirm this quantitatively. Removal of panicles had limited effect only as the sorghums tested quickly formed several new panicles.

**Project outputs in 2009**

The first field trials of this project were planted in June 2009 and harvested in December 2009. Final analyses and reporting will be done in 2010. A number of preliminary reports have been prepared:


**Project management and administrative issues**

Coordination of all project activities in Benin is the joint responsibility of Dr. Polycarpe Kayodé (Université d’Abomey-Calavi, Benin) and Dr. Leo Oyen (PROTA, The Netherlands). In 2009, staff of Wageningen University visited Benin on 4 occasions to engage in the stakeholder meeting, prepare and conduct field work and trials, participate in the biodiversity and socio-economic surveys and in sampling and final harvesting.
4.4 Strengthening livelihoods and local management of plant genetic resources under conditions of climate change (‘Community climate response’)

Project coordinator:
Dr. B. Visser, Wageningen UR/PRI/Centre for Genetic Resources, The Netherlands

Project partners:

**The Netherlands:**
- Wageningen UR/PRI/Centre for Genetic resources, The Netherlands (CGN).
- Wageningen UR/PSG/Department of Plant Sciences/Centre for Crop System Analyses (prof. dr. P. Struik).
- Wageningen UR/SSG/Department of Social Sciences/Chair group Technology and Agrarian and Development (dr. C. Almekinders).
- Oxfam-NOVIB.

**Ethiopia:**
- EOSA (Ethiopia Organic Seed Action; dr. R. Feyessa, director).

**Zimbabwe:**
- CTDT (Community Technology Development Trust; Mr. A. Mushita, director).

Other partners in Ethiopia and Zimbabwe are subcontracted through EOSA and CTDT.

Background and project objectives

The ‘Community Climate Response’ project is about people, their plant genetic resources (PGR) and the influence of climate change on the management of these resources. Current climate change is likely to cause a shift in the conservation, development and use of plant genetic resources upon which local people depend, particularly in rural environments in sub-Saharan Africa. This project addresses the question how strategies to conserve and develop plant genetic resources on-farm can be adapted and expanded in order to improve farmers’ livelihoods and to contribute to food security under conditions of climate change. In this context, the project explores the interactions between farmers’ livelihoods and their changing environment. The project strives to increase the farmers’ options to acquire, select and use plant genetic resources that may provide them with better options to produce food, acquire income and improve their livelihoods. The project addresses current agricultural production and consumption patterns as well as differentiated strategies towards food security, and the way and extent by which these are influenced by climate change.

The project aims to achieve: (i) Increased awareness and capacity amongst farmer communities to prepare, for and cope with, climatic changes by adapting their crops and crop varieties, (ii) Increased awareness amongst policy makers about the relevance, the strengths and weaknesses of local resource management systems with regard to food security and climate change, (iii) Increased collaboration between communities and the public research sector in reaching the goals of food security, crop adaptation and conservation of PGR, (iv) Insight in the impact of the introduction of new germ-plasm on traditionally, on-farm managed crop diversity, (v) Increased capacity of southern project partners to carry out action-oriented and policy-relevant research and (vi) Presentation and publication of project results.

The ‘Community Climate Response’ project is being implemented in Ethiopia and in Zimbabwe. Both countries contain regions that are expected to be affected most by climate change and that, without sufficient adaptation measures, will likely suffer negative impacts on food security. Partner organisations are EOSA (Ethiopian Organic Seed Action) in Ethiopia and CTDT (Community Development Technology Trust) in Zimbabwe. In both countries the project is active at three different sites.

Project coordination and administrative issues

The Community Climate Response project started in August 2009. Project coordinators are Dr. Bert Visser (director CGN, The Netherlands), dr. Regassa Feyessa (director EOSA, Ethiopia) and mr. Andrew Mushita (CTDT, Zimbabwe) respectively. Main coordination activities were of an administrative nature (central contractual arrangements and advance payments, sub-contracting project partners, etc.). An Inception Meeting with the partners was organized in Addis Ababa in September 2009 (see below).

Project activities in 2009

On August 31-September 1, 2009, an Inception Meeting with all project partners from Wageningen UR, Zimbabwe and Ethiopia was held in Addis Ababa, Ethiopia. The meeting focused on (i) The further elaboration of project philosophy and approaches, (ii) The division of tasks and responsibilities between the project partners and (iii) The projects’ time planning.
Project outputs in 2009

General
One of the issues discussed in the Inception Meeting mentioned above, was how climate change could be best factored into the project approach, i.e. how existing farmer field school-mediated participatory plant breeding concepts and approaches could be modified and adapted to bring in the perspective of climate change. It was concluded that this was not a climate change project per se, and that none of the partners could be considered as climate change experts. It was therefore decided that the perception of farmers and local communities of climate change over the last ten years would be taken as a starting point and reference for project development. Furthermore, the crops and desired properties that could form the focus of the project were discussed. In both, Zimbabwe and Ethiopia, three project sites were selected. These sites were chosen so as to optimize diversity in climatic zones and possible climatic changes. Both, zones with high exposure to prolonged drought and zones with low exposure were selected. Selections were made of new crops for investigation as well as the properties of new varieties of current crops. A summary of the project issues discussed, is as follows:

- How have farmers perceived changes in weather and climate over the last decade in their own communities? What were they looking for, how did they make their observations and what did they observe?
- What has been their response so far to perceived changes, in terms of experimenting with changes in their farms regarding the use of new varieties, new crops, adapted agronomic practices (such as other seeding and harvesting dates, adapted water use, etc.)?
- How can we as outsiders (community workers, extension staff, breeders, gene bankers, social scientists) support farmers in strengthening their response to cope with climate change? How can we help farmers to stay ahead of the adaptation curve and to not only react to changes that have already taken place?

A copy of the full meeting report is available with the project coordinator. Following the decisions taken in the Inception Meeting, the principal partners in Zimbabwe and Ethiopia developed detailed work plans and budgets for the community activities at their respective sites. In addition, CTDT reported on the field research activities that were carried out in Zimbabwe in a report entitled ‘Observed climate trends and farmers’ perspectives of climate change for Chiredzi, Murehwa and Uzumba-Maramba-Pfungwe Districts of Zimbabwe’. See Box 2.
Box 2
Climate trends and farmers’ perspectives. A summary

In Chiredzi, Murehwa and Uzumba-Maramba-Pfungwe (UMP) Districts of Zimbabwe, farmers state that rainfall amounts, rainfall distribution, and temperature have changed over the past ten years. In general, they perceived declines in the amount of rainfall -as shown by recurrent droughts, drying-up of water sources, absence of winter rains and prolonged dry seasons- and drastic changes in the rainfall distribution -as shown by delayed onset dates of the rainy season and increased frequency and length of mid-season dry spells-. In all three districts farmers stated that they observed higher than normal day-time temperatures, warmer nights and warmer winter seasons.

The above perceptions generally agree with the analyses of rainfall and temperature data as collected in the districts. These confirm that, over the last 20–30 years, rainfall variability and frequency have increased along with the severity of droughts. Moreover, in all districts average temperatures have risen by 0.3-0.4 °C. Mostly this warming occurred since 1980 when also the recurrence of droughts was higher than usual. Also, delays in the onset of the rainy season were observed which, in all three districts, resulted in shorter growing periods. Again, the latter agreed with farmers’ perceptions.

If these trends in rainfall variability and recurrent droughts continue, the study sites, Chiredzi District in particular, will be subject to increased water shortages that will threaten household-level food security. If farmers are to continue crop production, it is recommended that policy makers support the establishment of communal irrigation facilities.

Water requirements of the main crops grown in the three districts vary from high -for maize- to low -for rapoko (finger millet) and sorghum-. The fact in both districts (Chiredzi and UMP) crops prevail that have either high or low water-requirements shows that climate is not always the main determinant in crop choice: Rainfall averages in Chiredzi are low whereas in UMP District it is relatively high. Other factors, such as soil type, staple diet and market forces play roles as well. Sorghum, for example, is the second-dominant crop in UMP whereas maize is the main crop in Chiredzi. In spite of the low maize yields obtained in Chiredzi, farmers continue to grow it as it is the districts’ staple crop. Higher maize yields require the development of new varieties -or improvement of existing varieties- that suit the current climatic trends.

Reports


Some concerns

Given its objectives and ambitions, the life-span of the project is very short: 1½ year only, up to July 2010. In this respect we emphasize the desirability of a budget-neutral extension until 31 December 2010. A major development is the option recently offered through our partner Oxfam-Novib to extend and expand the project with almost two more years until December 2012. The offer includes an expansion of the project’s geographic scope into Indonesia. The complementary budget provided through Oxfam-Novib amounts to € 300,000. However, because of restrictive donor policies, these funds will not be available to Wageningen UR. Therefore, a clear distinction between the two complementary projects will be made in which, until the present project closes, all partners except for Indonesia will be funded from the DGIS-Wageningen UR Programme. Thereafter, our partners from the South will draw from the Oxfam-Novib budget. Financial reporting will be organized accordingly.
4.5 The inclusion of community-based agro-biodiversity conservation into value chains and markets

Project coordinator:
Dr. S. Vellema, Wageningen UR/SSG/Chair Group Technology & Agrarian Development

Project partners:

In The Netherlands:
- Wageningen University.
- Van Hall Larenstein.
- HIVOS and Oxfam-NOVIB - Biodiversity Fund.

In Colombia:
- Universidad Tecnologica de Pereira and local stakeholders of the bamboo chain.

In Europe:
- ISEAL Alliance (International Social and Environmental Accreditation and Labelling Alliance).

In France:
- SupAgro, Institut des Régions Chaudes, Montpellier.

In Ghana:
- Ghana Ministry of Agriculture.
- Organic Palm Oil Project, Asuoum.
- University of Cape Coast
- University of Ghana.

In Namibia:
- Eudafano Women’s Cooperative (EWC).
- PhytoTrade Africa (Southern African Natural Products Trade Association)

In South Africa:
- GreenChoice,
- Conservation International Southern Africa,
- World Wildlife Fund.
- Rooibos Biodiversity Initiative.
- Cape Town University.

In Thailand:
- Chiang Mai University, Department of Agricultural Extension.
- Multiple Cropping Centre, working with local communities on agro-biodiversity and crop varieties.

Background and project objectives
The project ‘Inclusion of community-based agro-biodiversity conservation into value chains and markets’ aims to contribute to the development of strategies and institutional arrangements that enable communities, entrepreneurs and organizations in countries in the south to overcome obstacles and exploit opportunities in market-led development when building integrated strategies for the conservation and sustainable use of biological resources. The main objectives of the project are: (i) Understanding and conceptualizing the enabling and constraining features of current market-led strategies, (ii) Devising alternative institutional configurations to enhance opportunities and to remove obstacles that stem from existing governance principles in domestic and cross-border value chains, (iii) Formulating and communicating these policy lessons to private and public decision-makers in standard-setting and certification schemes. The project involves the creation of platforms for exchange, collaboration and joint learning. These platforms use electronic communications tools as well as face-to-face workshops and information exchange. Graduate students of Wageningen University and of southern partner institutions conduct field research in interfaces between local biodiversity conservation strategies and the dynamics of markets and chains.
Project coordination and administrative issues

The project ‘Inclusion of community-based agro-biodiversity conservation’ started in July 2009. The involvement of many partners makes the project challenging and interesting, and requires the careful stipulation of expectations and deliverables. In this respect we refer to the report of the committee that evaluated the agro-biodiversity project proposals in April 2009, and which emphasized that contents of the present proposal are excellent but that its organizational set-up may imply some risks. The above partly responds to that comment.

For the project it is important to get motivated students on board. Therefore, the project invested in the creation of a challenging environment for students while simultaneously presenting clear guidelines that ensure that their work contributes to the overall orientation of the project. The scope and contents of the project have generated good enthusiasm among participating students of Wageningen University, which is facilitated by face to face interaction. In 2010, students from Wageningen University, Van Hall Larenstein and from SupAgro (Institut des Régions Chaudes) in Montpellier will be working on thesis projects in Colombia, Ghana, South Africa and Namibia. In the beginning of 2010 the project launched an e-conference with the project partners to define a common ground for including student from universities in the respective countries; this process is on-going in 2010.

Project activities in 2009

The main activities of the project in 2009 included:

**Compiling research reports and briefs.**
- Collecting data and demonstration materials from partners in order to obtain an overview of their intervention strategies and possible outcomes thereof. Data and materials were used to compose an attractive presentation to the wider public.
- Designing an outline of a research protocol for the project’s work plan 2010. Assemble analogue examples of comparative analysis based on a limited number of case studies. As the core task of the project is to use cross-case analysis for presenting lessons and insights to policy makers and practitioners, emphasis in the starting phase of the project was placed on careful preparation of the research methodology.
- Preliminary literature review of collective action in agro-biodiversity conservation.
- Preliminary field work in Thailand by Chiang Mai University staff.
- Desk study research in Namibia.
- Literature review for, and in, Ghana and Thailand, presented in mind maps.
- Motivating and recruiting MSc-level students.

**Building a learning platform and synthesis paper**
- Collection of visual evidence on selected case studies.
- Building and strengthening the project’s partnership network.
- Preparation and organization of an e-conference on research methodology.

**Policy outreach**
- The project coordinates with HIVOS and OXFAM-Novib, the two Netherlands’ organizations that manage the Biodiversity Fund.
- The research approach developed in the project dovetails with on-going discussions within the International Social and Environmental Accreditation and Labeling Alliance (ISEAL) on impact analysis. Also, the project contributed, through e-mail exchanges and discussions, to an ISEAL workshop that was co-organized with Solidaridad.

Project outputs in 2009

Output from the project activities in 2009 includes:

**Research reports and policy briefs.**
- Mind map with literature for the Ghana and Thailand cases. The mind map includes a list with key messages and comments on the 26 resources found initially for the Thailand case.
- A complete endnote-library for the literature used, including linked pdf-files and weblinks and a reference list sorted according to topic in a Word-file.

**Building a learning platform and synthesis paper**

- Presentation of case studies on the Eldis Community Website (http://community.eldis.org) for discussions among partners.
- Outline and design of an e-conference (scheduled for the period December 2009-May 2010).
- A planning document for the e-conference, including drafts at various stages.
- An expanded partner network in Ghana.

**Some concerns**

The United Nations has declared 2010 as the ‘International Year of Biodiversity’. This may provide an interesting platform for presenting and sharing research results from projects under Theme 3 of the Partnership Programme. In turn, this may require a more pro-active effort to coordinate and stimulate this.

In relation to the ‘International Year of Biodiversity’ mentioned above, the project would benefit from guidance by the partnership management and particularly DGIS.

As the project has a relatively short time span (1½ year), it seems important that the DGIS-WUR Partnership Programme manages expectations accordingly.
Institutional development and capacity strengthening forms a cross-cutting issue through the three main themes of the Partnership Programme. Institutional development and capacity strengthening has emerged as a key area in sustainable development and it features prominently in the priorities of both international donors and development organisations (World Bank, DFID, DGIS, etc.) as well as among Africa’s own priorities for development, including those of NEPAD/CAADP, FARA, CORAF, ASARECA, SADC/FANR and RUFORUM, etc.

Capacity development can be defined as the process by which individuals, organisations, institutions and societies develop abilities (individually and collectively) to perform functions, solve problems and set and achieve objectives. Traditionally, capacity development has focused on simply the training of individuals. While this remains important, capacity development to strengthen institutions requires support for long-term processes of organisational change and development. Such capacity development needs to focus how governments can become more effective in establishing institutional environments that are supportive of rural economic development, poverty reduction and food security.

Institutional development involves establishing an enabling environment that supports the empowerment of economically disadvantaged groups, encourages self-reliance, creates conditions for private sector participation in development and establishes mechanisms for sustainable natural resources management. In this context, the term ‘institutions’ refers not only to government agencies and organisations, but also to policy and legal frameworks, mechanisms for good governance, market mechanisms, incentive frameworks, networks and other mechanisms for co-ordinating the actions of different stakeholders and even the values and attitudes of different groups.

For government agencies and the mechanisms of governance, the implications of trends such as globalisation, decentralisation, privatisation and greater private sector involvement in development etcetera, are immense. A huge capacity development effort is required to reorient current government institutions towards this new environment. Particularly important is the capacity of governments to establish effective public-, private- and NGO-sector partnerships for rural development initiatives and to create a supportive and enabling institutional framework. This requires, for example, new skills for interactive, multi-stakeholder and system wide decision and policy making. It also requires the development of capacity for institutional analysis, design and adaptation.

In the framework of the Partnership Programme institutional development and capacity strengthening are being addressed both, at the formal level of education and training -at different levels: tailor-made courses, formal MSc-level courses and PhD trajectories- and at the informal level of on-the-job training, learning in negotiation platforms (as implemented for example in the different projects within Theme 2 ‘Competing Claims on Natural Resources’), learning in subject matter workshops (e.g. the Participatory Land Use Planning Workshop under the ILCE project), and in multiple stakeholder participatory project development processes (e.g. the stakeholder processes leading to the identification of new pilots within the sub-Programme ‘Value Chains for Pro-poor Development’).

Institutional development issues are also being addressed in the so-called soft-skills training components (including inter-cultural communication skills, interdisciplinary and system thinking approaches, institutional analysis, design and adaptation, etc.) that are generally part of the ‘Sandwich PhD approach’ as applied at Wageningen University including the PhD trajectories for different projects under Theme 2 ‘Competing Claims on Natural Resources’. Experiences gained in the institutional development and capacity strengthening activities of the Partnership Programme are being mutually shared with other capacity development initiatives in which Wageningen UR at large is involved, including NUFFIC-NPT projects in South Africa, Mozambique, Rwanda, Ethiopia and Benin, the WSSD Partnership Initiatives and the joint Wageningen UR-MDF-KIT ‘Support Programme on Institutional and Capacity Development ’ (SPICAD), a DGIS-supported programme.

In 2009 an initial compilation and analysis of lessons learned in the Partnership Programme was made by staff of the Wageningen International Centre for Capacity Development and Institutional Change. This analyses will be further elaborated in 2010. Main conclusions and observations so far include:

**Value Chains for Pro-poor Development, six pilot countries**

Starting point of the Value Chain Sub-programme is that pro-poor development implies more than generating higher incomes only. It also includes institutional development and capacity strengthening among stakeholders to enhance:

- Economic capabilities, i.e. the capability to earn income, to consume, to have assets and to secure access to productive financial and physical resources,
- Protective capabilities, i.e. the capability to withstand economic and other external shocks, to cope with insecurity and vulnerability and to respond to seasonal variations,
- Political capabilities, i.e. the capability to have a voice and some influence over public policies and political priorities,
• Socio-cultural capabilities, i.e. the capability to participate in societal communities away from geographic and social isolation and (v) Human capabilities, i.e. the capability to ensure well-being in terms of health, education, sanitation and shelter, and to improve livelihoods.

Facilitating Rural Entrepreneurship, Rwanda, Niger, Zambia and Uganda
One of the main objectives of Facilitating Rural Entrepreneurship is ‘learning and innovation’ by linking operational country programmes to learning and innovation activities within the network of Agri-ProFocus and vice versa. This is being done in a policy and practice interface. The Partnership Programme supports these processes in four focus countries: Rwanda, Niger, Uganda and Zambia. In all four countries, the process started by means of multi-stakeholder inception workshops and missions which, in total, involved learning actions with over 300 stakeholders. ‘Ning-platforms’ are operational for all four focus countries, allowing interactive information sharing and topical discussions. More specifically, output at the national level includes:
- The development of a self-assessment tool and the participatory self-assessment of some fourteen cooperatives engaged in cassava and rice chains at two locations in Rwanda.
- The mapping-out, of a joint country agenda on needs and opportunities to promote farmer entrepreneurship in Zambia, including the roles and responsibilities of the various stakeholders groups in the process.
- The identification of the need to strengthen capacities of farmers’ organisations in Uganda, where many farmers’ organisations are under stagnant and non-evolving leadership.

WIBIS Incomati Mozambique, Swaziland, South Africa
- Interactive training/capacity development with Task-Team Members, staff of National Water Boards, and PRIMA country staff in Mozambique, Swaziland and South Africa.
- Interactive workshops on the design and development of the WIBIS discussion support tool.
- Institutional policy dialogue in the three riparian countries involved.
- ‘Training of trainers’ in the application of the WIBIS discussion support tool that is being developed by the project.

ILCE Central Rift Valley, Ethiopia
• The two main work packages along which the ILCE project is being implemented basically form two PhD research trajectories.
• Participatory Land Use Planning Workshops form subject-matter learning and capacity development cum stakeholder empowerment trajectories.
• The ILCE project observes a ‘stakeholder workshop fatigue’ with the main project partner (HoA-REC): An overload of participatory learning workshop appears to be imposed by NGO’s and donor organisations.
• Institutional change processes and sustainable governance is being jeopardized by high turn-over of staff at government level and by regular reorganisation and restructuring initiatives. In the process, ‘institutional memory’ is lost.

Competing claims, competing models, Mozambique
• The many BSc, MSc and PhD trajectories being implemented under this project, including the theses researches contribute directly to regular capacity development.
• The learning trajectories involved include seminars, workshops, summer schools and special subject matter courses providing ample interaction opportunities with the non-research stakeholders.
• Multiple-scale and multiple stakeholder participatory negotiation platforms organised.
• The project contributes interactively to policy dialogue on bio-fuel policy at national level in Mozambique.

Illegal or Incompatible, Ghana, Indonesia:
• Enhanced capacity in strategic planning, critical reflection and monitoring and evaluation was built with eight Ghanaian project facilitators and two project coordinators to play a more pro-active role in sustainable forestry-related policy debates and practice.
• Two Ghanaian nationals finished their MSc studies, which included VPA-related thesis research under supervision of project staff of Wageningen University.
• Two Ghanaian nationals are being supported in their PhD research related to VPA’s.
• (Inter-)national stakeholders, including academia, NGO staff and policy makers have access to (preliminary) research outcomes through presentations and papers at project seminars in Wageningen and in Accra and through the project website: http://www.vpa-livelihoods.org/.
• Seven Ghanaians (BSc-level) have been trained in interdisciplinary research in an intercultural context, they attended the course jointly with seven Netherlands’ students from various universities in the Netherlands.
• One Indonesian student has started an MSc-level study at Wageningen University.
Sustainable use of Agro-biodiversity, various projects and countries

Community empowerment is a shared focus of the projects that were started in 2009 under Theme 3 ‘Sustainable Use of Agro-biodiversity’ of the partnership Programme. It is being pursued in different ways:

- The ‘Community Empowerment’ project targets the contribution of biodiversity management as a method for community empowerment. In doing so, communities are empowered to exercise rights to, and secure access and control over, their genetic resources. This is being pursued by strengthening the capacities of community-based organisations and individuals in local decision-making processes and local governance in the conservation and utilization of agricultural biodiversity.

- In terms of capacity strengthening and institutional development, the ‘Community Climate Response’ project aims to achieve increased awareness and capacity amongst farmer communities to prepare for, and cope with, climatic changes. Also, increased institutional collaboration between local communities and the public research sector in reaching the goals of food security, crop adaptation and conservation of plant genetic resources is being aimed at as well as increased capacity of project partners to carry out action-oriented and policy-relevant research.

- Among the objectives of the project ‘Inclusion of community-based agro-biodiversity conservation into value chains and markets’ devising alternative institutional configurations to enhance market and value chain opportunities takes a main position. To this end, the project involves the creation of platforms for information exchange, collaboration and joint learning.
6 Programme coordination and management

For a number of reasons only one (virtual) meeting of the Steering Committee of the Partnership Programme took place. This concerned the endorsement by the Steering Committee of the 4 projects selected -by an external evaluation panel- under the Call for Proposals for Theme 3 of the Partnership Programme ‘Sustainable Use of Agro-biodiversity’. Planning and organising further Steering Committee meetings in the reporting year was problematic mainly due to full and incompatible agendas of the Committee Members. Also, a number of personnel changes occurred at the level of DGIS. Subsequently, main decisions relating to the management of the programme were taken by the daily programme management team. For DGIS this involved Mrs. M. Schippers and Mr. F. Hoogveld (DGIS/DMW, both up to April 2009), Mrs. K. Roelofs and Mr. O. van Renterghem (DGIS/DME, as from May 2009) and Mr. R-J. Scheer (DGIS/DDE). At Wageningen UR daily programme management was with Messrs. A. Huijsman and W. Andriesse (both Wageningen International).

Main daily management issues included the general programme coordination, annual progress and financial reporting and work planning, the selection of two additional pilots under Theme 1 ‘Sustainable Agro-Supply Chains’ (See Chapter 2.1 of this report), the endorsement of implementing the facilitation process of the Rural Entrepreneurship Initiative under the Agri-ProFocus country focus initiative (Chapter 2.2), and, as mentioned above, the actual evaluation process leading to the selection of the four agro-biodiversity projects in Theme 3 (See Chapter 4).
7 Financial report 2009

The table on page 52/53 below, provides the overview of the budget and expenditures of the Partnership Programme in 2009. Actual expenditure under Theme 1 ‘Agro-supply Chains’ and Theme 2 ‘Competing Claims on Natural Resources’ largely match the budget 2009. Theme 3 shows considerable under expenditure, which is mainly caused by the late start (August 2009 only) of the four projects in this theme, as explained in Chapter 4. The Wageningen UR matching contribution in 2009 amounts to 26 per cent.
### DGIS-WUR PARTNERSHIP SETTLEMENT 2009

<table>
<thead>
<tr>
<th>nr. of days</th>
<th>rate</th>
<th>Settlement</th>
<th>Matching</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Management Costs (Secretary):</td>
<td>50</td>
<td>€ 911</td>
<td>€ 45,550</td>
<td>€ 45,550</td>
</tr>
<tr>
<td>Reis/verblijfkosten (project bezoek)</td>
<td></td>
<td>€ 5,000</td>
<td>€ 162</td>
<td>€ 50,550</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 45,712</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 12,113</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 57,825</td>
</tr>
<tr>
<td><strong>Monitoring and Evaluation:</strong></td>
<td>20</td>
<td>€ 833</td>
<td></td>
<td>€ 16,660</td>
</tr>
<tr>
<td><strong>Theme 1: Agro-Supply Chains</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordination costs/ Workshops</td>
<td></td>
<td></td>
<td>€ 58,220</td>
<td>€ 56,848</td>
</tr>
<tr>
<td>Methodology development;</td>
<td>40</td>
<td>€ 911</td>
<td>€ 36,440</td>
<td>€ 29,256</td>
</tr>
<tr>
<td>Pilot implementation (Ethiopia/Uganda/Mozambique/</td>
<td>6</td>
<td>€ 60,000</td>
<td>€ 360,000</td>
<td>€ 268,757</td>
</tr>
<tr>
<td>Rwanda/Burkina Faso/Niger)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitation Agri-profocus platforms</td>
<td>4</td>
<td>€ 19,000</td>
<td>€ 76,000</td>
<td>€ 38,602</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 393,462</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 152,768</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 546,230</td>
</tr>
<tr>
<td><strong>Theme 2: Competing Claims</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation of 4 CC projects</td>
<td>4</td>
<td>€ 150,000</td>
<td>€ 600,000</td>
<td>€ 475,586</td>
</tr>
<tr>
<td>Competing claims workshop</td>
<td></td>
<td></td>
<td>€ 15,000</td>
<td>€ 615,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 475,586</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 171,223</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 646,809</td>
</tr>
<tr>
<td><strong>Theme 3: Agro-biodiversity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call for Concept Notes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation of Concept Notes (2p x 1day)</td>
<td>2</td>
<td>€ 911</td>
<td>€ 1,822</td>
<td></td>
</tr>
<tr>
<td>Elaboration Full Proposals</td>
<td>4</td>
<td>€ 10,000</td>
<td>€ 40,000</td>
<td>€ 40,846</td>
</tr>
<tr>
<td>Evaluation of Full Proposals (2p x 2 days)</td>
<td>2</td>
<td>€ 911</td>
<td>€ 1,822</td>
<td>€ 1,658</td>
</tr>
<tr>
<td>Implementation agro-biodiv projects</td>
<td>4</td>
<td>€ 80,000</td>
<td>€ 320,000</td>
<td>€ 123,935</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 363,644</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 166,331</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 37,701</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 204,032</td>
</tr>
<tr>
<td><strong>Institutional Development and Capacity Strengthening</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact study (3p x 5 days)</td>
<td>15</td>
<td>€ 911</td>
<td></td>
<td>€ 13,665</td>
</tr>
<tr>
<td><strong>Mid-term review</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-term review (2p x 6 days)</td>
<td>12</td>
<td>€ 911</td>
<td></td>
<td>€ 10,932</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>€ 1,601,111</td>
<td></td>
<td>€ 1,081,091</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 373,805</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 1,454,896</td>
</tr>
<tr>
<td>Advance</td>
<td></td>
<td></td>
<td></td>
<td>€ 194,540</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>€ 1,649,436</td>
</tr>
</tbody>
</table>