FUPRO-BENIN is a multi-layered organisation composed of primary cooperatives and associations, district unions (UCP) and regional unions (URP). FUPRO is at the interface between the farmers and the community of stakeholders in development on the one hand and between farmers and the State on the other. It participates on behalf of farmers in the development and implementation of agricultural development programmes as well as in Benin's agricultural policy dialogue. FUPRO takes the lead in representing and defending the interests of its farmer members. Areas of intervention include information dissemination, communication and training services, and the mobilisation of external resources for financing programmes and projects in rural areas.
Maize is the most important food crop in Benin and is produced in all regions of the country, although under varying conditions. The southern part of the country is densely populated, farms are small, and there are two crops per year production. In the north of the country, farms are much larger but there is only a single production season. For a long time, agricultural policies in Benin favoured the cotton sector, which was the main recipient of public investment and intervention. Recent agricultural policies are, however, more open to agricultural diversification, with maize being a priority crop. The Government’s ambition is to double maize production (to 1.9 million tons in 2015), aiming to improve both food security and stakeholders’ incomes. The Benin cotton sector crisis and soaring food commodity prices triggered the call of District Producers’ Unions (UCPs) for agricultural diversification, with an explicit focus on maize. Maize was not only to enhance food security but also to become an alternative “cash crop”.

It was in this context that the Embassy of the Kingdom of the Netherlands in Benin (EKN Benin) asked the Netherlands Development Organisation (SNV Benin) to prepare a concept plan for a maize and cereal crop development programme for Benin. This resulted in a proposal to invest in Action-Oriented Research (AOR) to underpin the preparation of a new programme. Considering their representation in all regions of Benin, it was proposed that the Federation of Unions of Agricultural Producers of Benin (FUPRO) be entrusted with implementation of this AOR programme. Another reason to put FUPRO in the driver’s seat was that producers’ perspectives were seen to be lacking in the assessment of maize value chains, which had already been initiated by the Ministry of Agriculture, Livestock and Fisheries (MAEP). The objective of the proposed Action-Oriented Research (AOR) programme was to deepen the knowledge and understanding of the maize sector through an analysis of challenges and opportunities in various maize value chains, as identified by sector stakeholders in general and farmers in particular. The AOR programme was explicitly oriented to the formulation of a future development programme for promoting competitive, sustainable and inclusive maize value chains in Benin. For this reason the AOR programme was also referred to as the Maize Programme Pre-Project (“Avant Projet Maïs”- APM). The basic aim of the AOR programme was to work on strategic levers and to identify institutional and practical options for change that were based where possible on the experiences of innovative actions by farmers and other stakeholders, both in Benin and in neighbouring countries.

The AOR programme was made possible through funding from the EKN Benin; Agriterra who specifically provided support to regional workshops and exchange visits to Burkina Faso; and the ESFIM programme. The action research team was composed of researchers of FUPRO (at national, regional and district levels), SNV Benin, Agriterra, the Royal Tropical Institute (KIT) and the Centre for Development Innovation of Wageningen University and Research Centre (CDI-WUR), part of AGRINATURA. Agreements were signed between FUPRO-BENIN and all other partners. All partners are also members of Agri-ProFocus, which is becoming an increasingly important network for the promotion of farmer en-
trepreneurship and which is represented in Benin through the AgriHub Benin. The five partners worked as a team. The diagram below shows the roles of the different parties, as defined in the APM proposal.

<table>
<thead>
<tr>
<th>TABLE 4 MEMBERS OF THE RESEARCH PARTNERSHIP</th>
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</thead>
<tbody>
<tr>
<td>FUPRO</td>
</tr>
<tr>
<td>SNV</td>
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<tr>
<td>Agriterra</td>
</tr>
<tr>
<td>KIT and CDI-WUR</td>
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</tbody>
</table>

Collaborative research process

In December 2010, EKN Benin agreed to a ten-month contract with FUPRO and SNV, the intention being that the AOR would lead to a full proposal for the development of maize value chains in Benin. The programme became operational in April-May 2011, after the recruitment of a FUPRO AOR coordinator and agreement on the design of the action research process, facilitated by KIT and CDI. Activities were thus concentrated in a period of six months.

Desk studies

The desk research focused on collecting and analysing information on the dynamics surrounding maize value chains in Benin and in neighbouring countries, as well as identifying market opportunities including comparative market advantages. This research, conducted by consultants hired through a tender call, highlighted possible innovations in specific maize value chains in Benin and in the West African sub-region. This led to an inventory of potentially interesting ways to promote maize value chains and the identification of possible destinations for (farmers’) exchange visits.

Results of the desk research were validated during a workshop organised by FUPRO. The workshop, which was characterised by a strong participation of actors in the maize sector, including many farmers and FO’s, confirmed the priorities for maize value chain development: white maize for the local market; white maize for the regional market; yellow maize for animal feed for the local market; maize grits for brewing; and improved infant maize flour. The findings were in line with conclusions from the MAEP. Information from the desk studies contributed to a discussion on challenges and possible actions, as well as to the selection of study themes. This was also evidence of the iterative nature of the action research process.
Identification of challenges, options and research subjects

In the early stages of the research process, CDI and KIT had extensive meetings with FUPRO to discuss the challenges farmers face in the maize sector. A conceptual framework (RISE; rural innovation systems and entrepreneurship – Schrader, 2011a) was used to systematically seek drivers for maize market system change and also for discerning options to improve existing value chains, especially to the benefit of (smallholder) farmers, other local entrepreneurs and labourers.

The overall research question of the AOR programme was formulated as follows: ‘What are the levers and options for making maize value chains more competitive, sustainable and inclusive, in order to contribute to food and nutrition security in Benin and to improve producers’ income?’

This process led to the identification of ten challenge areas: (i) food security; (ii) producers and their organisations; (iii) production and productivity; (iv) storage and conservation; (v) commercial relations and price transmissions; (vi) product development and marketing; (vii) regional trade and competition; (ix) institutional context; and (x) technical and financial support services. These ten topics were also considered to form the basis for identifying practical actions having the potential to contribute to answering the overall research question.

Based on the identified challenges and options, the literature review and FUPRO’s strategic analysis of the maize sector, 12 subjects for action-oriented research were identified within the same ten challenge/performance areas. These subjects were validated during the AOR programme planning meeting of the team (May 2011).

Methodological guidance workshop

This workshop focused on the methodology of AOR and the planning of action-oriented research. The workshop was guided by a document suggesting a step-wise approach for systematically conceiving and planning an action research programme (‘Cadrage méthodologique: une approche participative et itérative pour les organisations paysannes nationales pilotant les activités de recherche-action’). The following steps were taken during the workshop:

- Definition, intervention logic and result chain of action research
- Establishment of conceptual framework - Rural Innovation Systems and Entrepreneurship: perspectives on value chains and market actors
- Analysis of concerns and priorities mentioned in action research proposals (APM and ESFIM)
- Structuring the action research activities (based on challenges and options as identified with FUPRO and explained above)
- Formation of central questions for the action research programme and delimitation of action research subjects
- Discussion of methodological approaches, i.e., methods and tools
- Structuring and presentation of desk study (according to ten action research areas)
- Discussion on necessary profile of researcher.

With hindsight, FUPRO and SNV realised that the APM document did not explicitly define what action research is, and how it differs from other traditional approaches for the identification and the formula-
tion of agricultural development projects and programmes. For this reason, the methodological guidance workshop at the beginning of the process was considered to be both an eye-opener and a crucial step in the process.

The initial approach mainly mentioned desk research and capitalisation workshops. The AOR programme placed more emphasis on thematic priorities and case studies of promising innovations. The start of activities was delayed among others by difficulties in establishing collaboration with the intended research partners at the Faculty of Agronomic Science of the University of Abomey-Calavi (FSA/UAC). To prevent further delay, it was decided to use the budget allocated to FSA/UAC to contract consultants for eight studies and use the ESFIM budget for another four studies.

**BOX 2 Selected study themes**

The twelve subjects for action research were the following:

1. Institutional and practical options for improving farmers’ access to quality inputs at affordable prices
2. Options to improve access to quality seed for different maize value chains
3. Using or not using storage and conservation techniques and consequences for losses, quality and economic results
4. Warehouse receipt system: factors determining success and failure
5. Organisation of women for processing and marketing of maize
6. Possibilities for direct sourcing of dried maize from organised farmers by large private and public buyers
7. Collective marketing: strengthening negotiating power of farmers through collective action
8. Promoting yellow maize value chains for supplying animal feed industry
9. Transparency of cross-border trade: analysis of transaction costs
10. Functioning of maize agribusiness clusters
11. Institutional and practical measures for improving collaboration between producers and local public technical service providers
12. Institutional and practical measures for improving credit provision for economic activities of farmers and their organisations

The thematic approach – underpinned by case studies - was chosen for various complementary reasons: desk studies (including previous MAEP studies) had already analysed specific value chains; farmers stressed cross-cutting issues (such as access to seeds, inputs and credit, quality extension services); farmer organisations had a specific interest in options for collective action (collective procurement and marketing, contract farming); and maize farmers do not target specific value chains when responding to market opportunities and may operate simultaneously in several markets and value chains. Ultimately, only two thematic studies (6 and 8) were specific to certain value chains. The other studies all pertained to cross-cutting issues that were of common interest to several or even all maize value chains.

For each of the research subjects, detailed Terms of Reference were prepared by FUPRO, with support from SNV, CDI and KIT. These knowledge institutions provided a toolbox with possible research methods and stressing the importance of triangulation.
Because of the action-oriented nature of the research activities, specific attention was given to case studies of farmers’ and farmer organisations that already had some experience with innovative activities and collaborative relationships with other stakeholders. This enabled the identification of realistic and feasible options for action. The idea was to build a programme for maize value chain development that was based on current circumstances and existing entrepreneurial dynamics.

**Capitalisation workshops and exchange visit**

Six regional workshops were organised to harness the experiences of farmers in maize value chains. The workshops were attended by producers from municipalities within the department hosting the workshop but also by representatives of other departments, and they concentrated on sharing experiences on maize storage, conservation and marketing. The workshops documented the experiences of value chain shareholders in terms of management, achieved results, strengths and weaknesses, sustainability, and thoughts on possible improvements. The discussions also helped to identify cases for the study themes and goals for the exchange visit.

This part of the AOR programme reflected the focus on current innovative practices as a stepping stone for more comprehensive maize value chain development and the out- and up-scaling of good practices.

The exchange visit to Burkina Faso applied the same philosophy of identifying innovative practices and solutions. The visit allowed participants (maize farmers and some other actors in the maize sector) to learn about various topics in the promotion of maize value chains in Burkina Faso, such as warehouse receipt systems, contracting with maize millers, and access to inputs.

**Member consultation**

The objective of the member consultation was to review the situation of maize-producing family farms and maize cooperatives, in order to better understand the constraints and opportunities they face. This would allow the prioritisation of policy issues and identify options for practical action based on the actual situation and objectives of maize producers and their organisations. The consultation allowed farmers and their primary organisations not only to state their opinions on the issues at stake but also to share their objectives and suggestions to develop the value chains to the benefit of other producers. For FUPRO, the organisation of a member consultation was relatively new and much appreciated as a tool to reveal the situation and aspirations of the maize farmers and maize cooperatives in the country and as a means to enhance the representational role of FUPRO.

A methodological guide (“Methodology for systematic member consultation: a guide for researchers” CDI, August 2011) was used to organise the survey: sampling; research methods; various questionnaires and Excel files for data entry. FUPRO led the member consultation process after the methodology had been pre-tested in Natitingou. The pre-test also provided practical, on-the-job training for FUPRO leaders and staff, who subsequently trained and coached the interviewers.

The survey team included FUPRO staff that trained and monitored the member interviewers as well as the six sub-contracted interviewers. Leaders and staff of the regional and district level farmer organisations facilitated the successful implementation of the inquiries. The workload of the survey was 20 days per region and totalled 120 days.

The main elements of the survey were the following: focused group interviews with cooperatives, interviews with individual farmers, self-assessment of the maize cooperatives and establishment of profiles of maize farmers. The survey was conducted among 24 maize cooperatives and 360 individual maize farmers. The cooperatives were selected through stratified random sampling from the existing maize cooperatives per region (4 cooperatives; 6 regions). The sampling of respondents reflected the partici-
pation of male and female farmers. The farmer profiles included 36 farmers (6 per region; 3 men and 3 women, of which 2 per region were not members of a cooperative). The table 5 presents results from the main subject areas, working methods and outputs of the member consultation.

### TABLE 5 COLLABORATIVE RESEARCH ACTIVITIES

<table>
<thead>
<tr>
<th>MAIN SUBJECT AREA</th>
<th>WORKING METHODS</th>
<th>OUTPUTS</th>
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<tbody>
<tr>
<td>Description and analysis of maize producer organisations (PO)</td>
<td>Interviews with the POs (focus group meeting with 3 board members and 12 members-at-large)</td>
<td>24 brief descriptions of POs (4 per region)</td>
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<tr>
<td></td>
<td></td>
<td>24 Excel files</td>
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<tr>
<td>Systematic collection of members’ opinions on the internal organisation and service provisions of their organisations</td>
<td>Self-assessment of the organisations by their members (FORCE Tool)</td>
<td>24 self-assessments (4 per region)</td>
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<tr>
<td></td>
<td></td>
<td>24 Excel files</td>
</tr>
<tr>
<td>Basic data on family farm enterprises</td>
<td>Survey - Basic data collection on family enterprises</td>
<td>Basic data on 360 producers (60 per region)</td>
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<tr>
<td></td>
<td></td>
<td>24 Excel files</td>
</tr>
<tr>
<td>Description and analysis of the activities undertaken by the PO, use of economical information and economic objectives</td>
<td>Interview with the PO (second part)</td>
<td>Basic data on 24 cooperatives (4 per region)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 Excel files</td>
</tr>
<tr>
<td>Debriefing and discussion on the self-assessment results and of important points on production, storage and marketing</td>
<td>Debriefing sessions with research teams and FUPRO regional and local offices</td>
<td>24 debriefing sessions, 4 per region</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 finalised debriefing reports</td>
</tr>
<tr>
<td>“Family picture”: Profile of 36 producers from different regions of Benin (6 per region)</td>
<td>Case studies of maize producers; use of the database on agricultural enterprises (Interview 3) to sort out quantitative indicators</td>
<td>36 qualitative profiles of family enterprises (24 PO members and 12 non-organised)</td>
</tr>
</tbody>
</table>

This systematic member consultation resulted in an important database with information on maize cooperatives and maize farmers in various parts of the country. The findings were summarised in three reports (Schrader et al., 2011a – 2011c). In addition, the farmer profiles (1-2 pages) resulted in a gallery of maize farmers in the country.

The database highlights major differences among farmers and farmer groups and also between production zones. The ambitions of various farmer groups differ significantly in terms of their goals, ambitions and entrepreneurial capacities.

One important set of findings was the mapping of strategic orientations and economic objectives of the maize cooperatives. Producers have clear economic objectives, which can be the starting point for a national programme to improve the performance of maize value chains. The producers pointed to the possibilities for a significant increase in white and yellow maize production, and to the importance of processing, storage and collective marketing. This demonstrates that member consultation can provide both baseline data and helping to set SMART objectives and define medium-term milestones. The study also reinforced that exchanging information among farmers having different experiences can boost innovation.
Peer-review workshop

Towards the end of the AOR programme in September 2011, a peer review workshop was held to evaluate the research results. This workshop also generated short articles on the main themes using Writeshop methods. These articles, comprising key messages, were prepared to inform decision-makers involved with future maize value chain development programmes. This phase also resulted in the production of summary documents (‘thematic information sheets’) for the previously-identified challenge areas and validated the relevant options for addressing the challenges. At this stage, the number of challenge areas was reduced from ten to eight, as some areas were merged and reformulated.

Strategic workshop

As a follow-up to this preparatory meeting, a strategic workshop was held in October 2011 that brought together the different stakeholders in the maize sector, farmer leaders and MAEP executives. FUPRO made efforts to identify participants having in-depth and practical knowledge of the maize sector as well as a vested interest in the sector. In spite of the efforts made, private sector representation in the workshop remained limited. The workshop allowed for validating the key findings of the AOR programme and identified strategic options for action with government and sector-specific policies. Furthermore, participants discussed the institutional set-up of such a future programme, which requires good coordination of activities as well as delegation of responsibilities to stakeholders. A basic principle that was agreed upon was that public and private service providers should follow demands of private entrepreneurs (producers, processors, traders, etc.) in the maize sector. This was a fundamental change from the usual approach, whereby project owners (i.e. the public sector) defined the objectives.

“Three components were seen as crucial: promoting rural entrepreneurship, prioritising topics that support innovation, and sharing evidence-based knowledge and experience.”

In addition to the definition of principles and programme strategies, the workshop prepared the terms of reference for a small group of experts to be responsible for preparing the first draft of the programme for maize value chain development. A steering committee was nominated to discuss and ratify the programme proposal. The use of a team of experts for the preparation of the programme proposal was necessary in view of the extremely short time between the last stages of the AOR programme and deadline for submitting the proposal to the Netherlands Embassy in Benin. The deadline for submitting the proposal was not renegotiated, because FUPRO wanted to demonstrate its credibility as a reliable partner. However, the short time available and the fact that the consultants writing the proposal was not sufficiently up-to-date with the outputs from the AOR programme led to an insufficient uptake of AOR results in the formulation of the programme proposal for maize value chain development. This resulted in an under-utilisation of strategic insights, ‘grounded’ options and innovative ideas for the implementation modalities of the programme for maize value chain development. Several new ideas for future development work on the subject of maize value chains were also shared with EKN Benin. These included the development of agribusiness clusters around specific maize value chains, combined with the cross-cutting learning from the thematic areas that emerged from the AOR. Work on value chains could combine production-push and market-pull dynamics. Support to agribusiness clusters would focus on stakeholder collaboration and give a central role to companies, farmers and their organisations and be especially interesting for financial service providers and quality advisory services. Three components were seen as crucial: promoting rural entrepreneurship, prioritising topics that support innovation, and sharing evidence-based knowledge and experience.