POST HARVEST MANAGEMENT IN SUBSAHARA AFRICA

Project Document for Phase I
01.04.2013 to 31.03.2017

Zurich, 15.02.2013
Version 2.1
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<tr>
<td>AFAAS</td>
<td>African Forum for Agricultural Advisory Services</td>
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<td>ADB</td>
<td>African Development Bank</td>
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<td>AIS</td>
<td>Integral Agricultural Innovation Systems</td>
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<td>APHLIS</td>
<td>African Postharvest Loss Information System</td>
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<td>AU</td>
<td>African Union</td>
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<td>CAADP</td>
<td>Comprehensive African Agricultural Development Programme</td>
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<td>CAN</td>
<td>Conseil National de l’Alimentation et de la Nutrition</td>
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<tr>
<td>CeCPA</td>
<td>Centre Communal de Promotion Agricole</td>
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<td>CeRPA</td>
<td>Centre Regional de Promotion Agricole</td>
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<tr>
<td>CIMMYT</td>
<td>International Maize and Wheat Improvement Center</td>
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<td>COMESA</td>
<td>Common Market for Eastern and Southeren Africa</td>
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<td>CoP</td>
<td>Community of Practice</td>
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<tr>
<td>ECOWAS</td>
<td>Economic Community of West African States</td>
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<tr>
<td>FANRPAN</td>
<td>Food, Agriculture and Natural Resources Policy Analysis Network</td>
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<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>FARA</td>
<td>Forum for Agricultural Research in Africa</td>
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<td>GFRAS</td>
<td>Global Forum for Rural Advisory Service</td>
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<td>GPFS</td>
<td>Global Programme Food Security</td>
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<td>HaSSP</td>
<td>Harmonised Seed Security Project</td>
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<td>HDI</td>
<td>Human Development Index</td>
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<td>HSI</td>
<td>HELVETAS Swiss Intercooperation</td>
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<td>HO</td>
<td>Head Office</td>
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<tr>
<td>IFAD</td>
<td>International Fund for Agriculture Development</td>
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<td>IFI</td>
<td>International Finance Institution</td>
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<td>IITA</td>
<td>International Institute of Tropical Agriculture</td>
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<tr>
<td>INPHO</td>
<td>Information Network on Post-harvest Operations</td>
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<tr>
<td>INRAB</td>
<td>Institut National de Recherches Agricoles</td>
</tr>
<tr>
<td>INSAE</td>
<td>Institut National de la Statistique et de l’Analyse Economique (Bénin)</td>
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<tr>
<td>ICT</td>
<td>Information and Communication Technologies</td>
</tr>
<tr>
<td>M4P</td>
<td>Making Markets Work for the Poor (framework)</td>
</tr>
<tr>
<td>NEPAD</td>
<td>New Partnership for Africa’s Development</td>
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<tr>
<td>NGO</td>
<td>Non-governmental organization</td>
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<tr>
<td>NRI</td>
<td>Natural Resource Institute</td>
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<tr>
<td>PARPA</td>
<td>Plan for the Reduction of Absolute Poverty</td>
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<tr>
<td>PASDER</td>
<td>Programme d’Appui à l’Amélioration de la Productivité des Exploitations Familiales</td>
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<tr>
<td>PHL</td>
<td>Post Harvest Losses</td>
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<td>PHM</td>
<td>Post Harvest Management</td>
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<tr>
<td>PICS</td>
<td>Purdue Improved Cowpea Storage</td>
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<td>PSAIA</td>
<td>Projet de Sécurité Alimentaire par l’Intensification Agricole</td>
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<tr>
<td>PTAA</td>
<td>Programme de Technologies Agroalimentaires</td>
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<tr>
<td>PUASA</td>
<td>Programme d’Urgence d’Appui à la Sécurité Alimentaire</td>
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<tr>
<td>RAS</td>
<td>Rural Advisory Services</td>
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<tr>
<td>REC</td>
<td>Regional Economic Community</td>
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<td>SDC</td>
<td>Swiss Agency for Development and Cooperation</td>
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<td>SETSAAN</td>
<td>Food and Nutritional Security Technical Secretariat</td>
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<tr>
<td>SRO</td>
<td>Sub-regional research organization</td>
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<tr>
<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<tr>
<td>TPA</td>
<td>Theatre for Policy Advocacy</td>
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<tr>
<td>UEM</td>
<td>Universidade Eduardo Mondlane</td>
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<tr>
<td>UNICEF</td>
<td>United Nations International Children’s Emergency Fund</td>
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<td>WFP</td>
<td>World Food Programme</td>
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<td>WB</td>
<td>World Bank</td>
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Executive Summary

The value of post-harvest losses for cereals in Africa is estimated at more than 4 billion US$ annually or almost 15% of the total production value. It is widely acknowledged that reduction of postharvest losses (PHL) along food chains can provide a cost-effective means of promoting food and nutrition security. This is particularly true in the context of SSA where it is estimated that up to 40% of food losses occur at post-harvest and processing stage. The scoping studies conducted in the two pilot countries of this project – Benin and Mozambique – confirmed the need for action, revealing a number of major constraints that impede effective postharvest management (PHM). Among the most important are a lack of awareness of the relevance of PHL at all institutional levels, the quasi absence of PHM as topic in politics and rural advisory services (RAS), no possibilities of households to invest in improved postharvest technologies, the loss of traditional knowledge on local PHM techniques, inappropriate or harmful conservation methodologies and the limited access to markets and market information.

This initiative is one of three projects under the umbrella programme of the Global Programme Food Security (GPFS) of SDC with the common goal to “to increase food security of smallholder farmers in Sub-Saharan Africa through reduced postharvest losses at farm and community level”. This project is coordinated by HELVETAS Swiss Intercooperation (HSI) and implemented in a consortium with FANRPAN (Food, Agriculture and Natural Resources Policy Analysis Network), with AFAAS (African Forum for Agricultural Advisory Services) and Agridea as further partners. The project duration is six years, and the project document at hand refers to the first phase of four years (4/2013-3/2017).

Expected outcomes: This initiative has a regional focus and intervention logic, including pilot activities in Benin and Mozambique during the first phase. All three projects of the GPFS postharvest umbrella programme share the same expected outcomes which are:

1. Improved handling and storage options within the grains and pulses value chains are benefitting smallholder farmers in pilot countries.
2. Good practice options for reducing postharvest losses are compiled, disseminated and scaled up.
3. Appropriate regulatory frameworks on reducing post-harvest losses in food supply chains are introduced and implemented at national and regional levels and financing is secured.

Impact hypothesis: An increased awareness on PHL issues, the promotion of effective PHM practices and systems, combined with capacity building and facilitation of access to markets will lead to smallholders adopting improved PHM practices and systems, improved handling and storage of crops and reduced PHL at farm and community level. A higher flexibility to sell stored produce at a later stage at higher prices results in higher farm incomes. All contributes to increased food security of smallholder farmers. The compilation and dissemination of successful PHM practices through effective knowledge sharing and learning mechanisms at national, regional (SSA) and global level and the use of innovative methods (RAS) for wider dissemination of PHM practices and systems will contribute to attain scale and sustainability of before mentioned impacts at household and community level. The evidence gained from experience in pilot regions will contribute to advocacy and policy dialogue resulting in increased awareness and capacity of policy makers on PHM issues at local, national and regional level. This will contribute to the integration of PHM issues into regulatory frameworks (policies, standards, norms) ultimately leading to a more conducive environment attracting more investments for PHM in envisaged food crops value chains.

Intervention strategy: At the level of rural households and communities, a two-prong strategy is envisaged: 1) PHM and storage of grains and pulses as a strategic element for ensuring food supply in households and communities (net deficit grain production); and 2) PHM of grains and pulses as a commercial activity for income generation through improved market access (net surplus grain production). At the national, regional and continental (SSA) level, the project is based on the following four main strategies: 1) Building awareness and capacity of key actors on importance of PHM for increased food security, 2) Organizing and promoting learning and sharing, 3) Development and use of innovative RAS approaches and tools for effective dissemination of PHM practices and systems, 4) Contributing to advocacy and policy dialogue.

Main activities: Outcome 1 is based on interventions at local/national level in selected areas of pilot countries. Based on the analysis of major constrains related to markets and storage strategies of essential grains and pulses, promising traditional and new PHM practices and systems are assessed
(level of loss, cost-benefit, cultural acceptance etc.), validated and further developed through participative evaluation at farm and community level. By means of documents, tools and methodologies developed under outcome 2, and through capacity building and awareness campaigns, the prioritized PHM practices will be disseminated in the pilot areas. Based on the evidence of successful PHM practices and systems derived from interventions in outcome 1, good PHM options are documented (guides, brochures, web, etc.) and promoted in networks and CoPs at national, regional and global level. For dissemination of the PHM options and policies on a wider scale, innovative and pluralistic RAS, suitable for effective dissemination and scaling-up of PHM practices, are identified and developed, and capacity building of key actors (farmer organizations, service providers, public sector) are conducted by means of training and learning events at national level in pilot countries (first phase) and regional level (end of first phase and second phase).

Outcomes 1 and 2 will lay the basis of evidence-based advocacy and policy dialogue on PHM related issues. Advocacy and policy interventions will focus primarily on the level of selected pilot countries and on the level of regional institutions and stakeholders. Main activities include the elaboration of policy briefs related to PHM and the conducting of policy dialogues at local, national and regional level through multi-stakeholder platforms, and capacity building of government officials and policy makers with the aim of contributing to the implementation of improved regulatory frameworks related to PHM in the selected focal countries and at regional (SSA) level.

Main approaches: The project will apply an M4P approach for the assessment of constraints and opportunities in the PHM system, its services and supporting functions, as well as for analysing RAS systems with regard to the dissemination of PHM. Another approach is the creation of conducive policy frameworks for PHM through direct access to and sensitization of politicians and policy makers, and by means of multi-stakeholder policy dialogues. The intervention will put an important focus on addressing bottlenecks of PHM and strengthen capacities in PHM of women and other disadvantaged groups. Furthermore, extensive knowledge sharing and capacity building of relevant stakeholders is a key element of all interventions in this initiative.

Beneficiaries: The primary target group (direct clients) are smallholder farming households and rural communities in the two pilot countries (first phase). The intervention focuses particularly on net-deficit grain agricultural producers. For the first phase and in the two pilot countries, it is expected to have a total outreach of 100’000 rural households benefitting from improved PHM practices and systems, awareness and capacity building, and regulatory frameworks, i.e. i) 10’000 rural households adopting new PHM practices and systems, and ii) an additional 90’000 rural households capacitated or sensitized on PHM issues by means of trainings and awareness campaigns, and benefitting from improved institutional frameworks. The secondary target group (indirect clients) are local farmer organizations, RAS agents, private sector actors, staff from NGO’s and governments, and policy makers which are all considered as “change agents” in terms of improved PHM.

Roles and responsibilities: The particularity of the present proposal is the linkage between the field and country experiences of HSI and the two African networks FANRPAN and AFAAS, the latter supported methodologically by Agridea. HSI has the overall coordination and the lead of the initiative, is responsible for the implementation of pilot activities in two focus countries, technical backstopping on postharvest and M4P and the linkage of the project with the other two PHM initiatives of the GPFS. FANRPAN is responsible for conducting policy analysis related to PHM, the convening of local, national, and regional policy dialogue platforms and other policy related processes and the establishing of linkages between this initiative and other national and regional frameworks. AFAAS is in charge of analysing and developing appropriate Rural Advisory Services for PHM, capitalizing and disseminating successful PHM experiences through national and regional RAS networks, conducting capacity building on RAS for PHM and linking the initiative with other African networks especially in relation to RAS. Agridea has the role of strengthening and backstopping AFFAS in establishing functional country form and ensuring the implementation of their activities foreseen in this initiative, ensuring links with GFRAS, providing conceptual advice on development and use of innovative RAS for PHM, and the capitalization of experiences related to RAS for PHM.

Budget: The overall budget of the first phase is CHF 2’820’475, thereof CHF 1’515’475 for personnel and operational expenses, and CHF 1’305’000 for output / project activities.
## 1. Synopsis

<table>
<thead>
<tr>
<th>Name of project</th>
<th>Postharvest Management in Sub-Saharan Africa (PHM-SSA)</th>
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| Project Number  | SDC: E-xxx *(to be assigned by SDC)*  
|                 | HSI: 2200.04.1.0                                       |
| Working area    | Rural Economy (REC)                                    |
| Country, project area, main location | Regional: Sub-Saharan Africa, with two pilot countries (1st phase):  
1. Benin: communities in departments of Atacora (North) and Couffo (South)  
2. Mozambique: communities in northern provinces of Nampula and Cabo Delgado |
| Short description | The project aims to improve food security (increased food self-sufficiency and incomes) of smallholder farmers in SSA through reduction of postharvest losses of food crops (grains and pulses) by addressing major constraining factors of technology dissemination and adoption, knowledge and information sharing, rural advisory services (RAS) and policies related to PHM. Interventions focus at two levels: i) validation and promotion of PHM practices and systems at rural household and communities level through use of innovative RAS and private sector linkages, ii) linking national and regional level through active promotion of sharing and learning, capacity-building, and advocacy and policy dialogue related to PHM. |
| Development goal | Food security of smallholder farmers in Sub-Saharan Africa is increased through reduced postharvest losses at farm and community level |
| Outcomes        | 1. Improved handling and storage options within the grains and pulses value chains are benefitting smallholder farmers in pilot countries.  
2. Good practice options for reducing postharvest losses are compiled, disseminated and scaled up.  
3. Appropriate regulatory frameworks on reducing post-harvest losses in food supply chains are introduced and implemented at national and regional levels and financing is secured. |
| Outputs         | 1.1 Major constraints related to markets and community & household storage strategies in selected food crops value chains have been analysed  
1.2 Promising PHM practices and systems have been identified, validated and further developed.  
1.3 PHM practices and systems have been disseminated and adopted.  
2.1 Good PHM practices and systems have been documented & used in networks  
2.2 Innovative RAS, suitable for effective dissemination and scaling-up of PHM practices have identified and (further) developed.  
2.3 Relevant actors (RAS agents, farmer org., private sector, government officials, and policy makers) have been capacitated on PHM practices and systems.  
3.1 Relevant policy briefs on PHM have been elaborated and made available.  
3.2. PHM has been included in the agendas of local, national and regional policy dialogue platforms.  
3.3 Frameworks for food standards and norms have integrated PHM aspects. |
| Target group / outreach | Primary target group:  
1) 10,000 rural households adopting new PHM practices and systems  
2) 90,000 additional rural households sensitized on PHM issues  
Secondary target group (change agents for PHM): local farmer organizations, RAS agents, private sector actors, NGO and government staff, and policy makers |
| Project partners | • Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN)  
• African Forum for Agricultural Advisory Services (AFAAS)  
• Agridea  
• Other national and regional stakeholders in PHM |
| Duration / number of current phase | 01.04.2013 – 31.03.2017 / 1st phase (4 years) |
| Total duration and number of phases | 6 years / 2 phases |
| Budget current phase (all phases) | 2'820'475 CHF (4'000'000 CHF) |
2. Context

2.1. Background of the project

For most countries in Africa and notably the low-income/food-deficit countries, PHL are often a forgotten yet important factor that exacerbates food insecurity. A recent study (FAO, 2011) calculated food losses of 120-170 kg per capita and year for SSA with 40% of the losses occurring at post-harvest and processing stage. PHL could represent around 15-20 million tons of cereals every year in SSA (estimating PHL at 15%, FAO). For cereal grains alone, the value of post-harvest losses in Africa is estimated at more than 4 billion US$ annually or almost 15% of the total production value (AfDB, 2010).

In low-income countries the causes of food losses and waste are connected to financial, managerial and technical limitations in harvesting techniques, storage and cooling facilities in unfavorable climatic conditions, infrastructure, packaging and marketing systems. As the recent WB/NRI/FAO 2011 study mentions, food losses contribute to high food prices by removing part of the food supply from the market. Smallholder farmers and in particular women are most affected by losses since they have restricted access to resources and assets, a fact that deprives them from dealing with postharvest challenges properly.

On the other hand, it is widely acknowledged that reduction of postharvest losses (PHL) along food chains can provide a more cost-effective means of promoting food and nutrition security than investments focussing on increasing production. Thus, post-harvest interventions can be considered to be one of the most effective measure to increase food security in regions like Sub-Saharan Africa (SSA) where PHL are very high (see next chapter).

Post-harvest management (PHM) has increasingly received attention in the last years, be it at the international level in food security related initiatives or at continental level in Africa, for example in policies of the African Union (AU) such as the Comprehensive African Agriculture Development Programme (CAADP) of NEPAD, programmes of the AU Commission, AfDB, WB as well as FAO. However, despite the importance of PHL, there are hardly any well established mechanisms at international or SSA level for tackling PHL. Studies and surveys point out the need for more “ground” interventions, to tackle postharvest issues from a market perspective and not only perceive it as a pure technology challenge, and to better learn from existing initiatives by linking practitioners and experts across Africa and beyond.

This initiative is one of three projects that are part of an umbrella programme of the Global Programme Food Security (GPFS) of SDC and that follow a common goal which is “to increase food security of smallholder farmers in Sub-Saharan Africa through reduced postharvest losses at farm and community level”, and common outcomes which are outlined in chapter 3. This project is coordinated by HELVETAS Swiss Intercooperation (HSI) and implemented in a consortium with FANRPAN (Food, Agriculture and Natural Resources Policy Analysis Network), with AFAAS (African Forum for Agricultural Advisory Services) and Agridea as further partners. Benin and Mozambique were selected as pilot countries for the first phase. The second project of the umbrella programme has also a regional focus and is jointly implemented by the three Rome-based agencies Food

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2 AfDB launched the Programme for Post-Harvest Losses Reduction (PHLP) 2010-2014. EU supports the African Post Harvest Losses Information System (APHLIS); FAO set up INPhO (Information Network on Post-harvest Operations).
3 The second project of the umbrella programme has also a regional focus and is jointly implemented by the three Rome-based agencies Food and Agriculture Organization (FAO), International Fund for Agriculture Development (IFAD) and the World Food Programme (WFP) the third project is implemented by FAO with with a national focus in Ethiopia.
and Agriculture Organization (FAO), International Fund for Agriculture Development (IFAD) and the World Food Programme (WFP), and finally, a FAO initiative implements a project with a national focus in Ethiopia.

2.2. Post harvest management in the pilot project countries

2.2.1. Benin

In Benin, two areas were selected for the pilot activities: one in the dry zone of the department of Atacora (Boukombé, Cobly) in the North and one in the more humid climate zone of the departments of Mono/Couffo (Comé, Klouékannmè) in the South. An overview on the socio-economic, environmental and political situation in Benin is given in annex 4.

Food security and post harvest losses

According to the WFP and UNICEF\(^4\) almost one million or 12% of all households in Benin are permanently food insecure and another million are at risk of food insecurity. According to a more recent national study of INSAE, there is a rapid deterioration of the food security situation, estimating that – depending on seasonal fluctuations – the food insecurity rate of households from 2008 to 2010 varied between 25 and 55%. The zones most affected by food insecurity are Atacora in the North, and Mono and Couffo in the South (FAO, 2009, INSAE 2010). Despite the fact that agro-climatic conditions are better in the Southern zones, food security there is not better compared to the Northern areas, mainly because population density is high and farms in the Southern provinces are typically very small. Current food insecurity in the two zones amounts to dramatic 30 to 40%.

Agricultural production of smallholders is subsistence oriented with a high percentage of food crops grown for own consumption (maize, sorghum/mil, rice, beans, soya, fonio, voandzou). Production methods are basic, access to inputs almost missing (except for cotton inputs used for maize production), and yields are declining mainly due to a decrease in soil fertility. In the South, farms investing in citrus fruits and land speculation additionally reduce the size of farms. In the North, the main challenges in the production are droughts, low fertility of soils and a lack of manpower due to increasing migration which is often triggered by the formerly mentioned factors.

The insufficient production in many areas is aggravated by the selling-off of harvests (at low prices, often directly from fields) and widespread price speculation on food products – a well known threat to farmer livelihoods in the entire region of Western Africa. Efforts of the governments, national and international programs have so far failed to counteract these mechanisms effectively.

The main causes for PHL of grains and pulses in the two focal areas are damages from insects and rodents due to leaky storage systems or infected stocks, mold (e.g. aflatoxin) due to insufficient drying, fermentation of insufficiently dry grains in hermetically closed containers, bins or plastic bags; unavailability of granaries or other storage facilities. A common problem in the Southern zone is that the dry season is too short as to allow for proper drying of the grains at the open air. More sophisticated drying systems (solar dryer, ovens) are not common. In the two zones, the traditional clay granary is disappearing due to a lack of construction material, the lack or loss of knowledge, high investment costs, fear of theft, high pest risks as well as a lack of production and food stocks. A range of alternative storage techniques such as polyethylene bags, cans, and “Purdue Improved Crop Storage” (PICS)\(^5\) – triple-layer hermetic storage bags that provide insecticide-free, long-term storage of common beans with minimal grain loss – are gradually replacing the traditional techniques. In Atacora, the traditional granaries are still common (60% of surveyed farmers). Another risk is the inappropriate use of synthetic pesticides that are added to stocks. In a number of projects storage facilities were built, but often they had limited success as the newly built granaries

\(^4\) WFP, 2009: Global Analysis of Vulnerability, Food Security and Nutrition

\(^5\) OGNAKOSSAN et al (2010) Use of PICS bags for the control of P.Truncatus and Dinoderus spp. on stored cassava chips
remained empty or were not used at all. Recently, interesting initiatives promoting warrantage systems were initiated.

Institutional context related to agriculture and food security

In the last years, the topic of food security emerged on the agenda of many governments in SSA. In Benin, the Conseil National de l’Alimentation et de la Nutrition (CAN) was created in the aftermath of the food crisis in 2009. The Office National d’Appui à la sécurité Alimentaire is a body in charge of observing the national food security, facilitating market information, establishing food stocks and coordinating action in case food aid is needed. A range of programmes such as the Projet de Sécurité Alimentaire par l’Intensification Agricole (PSAIA), the Programme d’Urgence d’Appui à la Sécurité Alimentaire (PUASA) or the Programme d’Appui à l’Amélioration de la Productivité des Exploitations Familiales (PASDER) have a focus on food security. The topic of food security is considered at all administrative levels (communal, department, national), but so far only very limited action is included in the community development plans. Sometimes, activities are planned but funding for implementation is lacking unless there is support from an external project.

As with regard to PHM, this term is virtually non-existent in public documents, there are hardly any on-going projects with an explicit focus on PHM, and it does not appear as a topic in the programs of public extension services of CeCPA’s and CeRPA’s. Yet, these relatively well functioning institutions are promising key agents in the promotion of PHM through extension.

Two key research institutions are the Institut National de Recherches Agricoles (INRAB) and the International Institute of Tropical Agriculture (IITA). In the frame of the Programme de Technologies Agroalimentaires (PTAA), INRAB developed a range of post harvest technologies, namely the improved granary, solar drying techniques for nièbé, sorting/grading before storage, among others. IITA contributed significantly to the development of methodologies for organic post harvest pest management of maize, engaged in the dissemination of techniques against mycotoxine contamination and triple bags for nièbé.

Several local NGOs are working in food security (some former HSI partner organizations), but there is only little action on post-harvest management, mainly focusing on beans. One partner in the North of the country is the Belgian NGO LISA that promotes improved granaries. There is a national network in Benin called “National Platform for Food Security” which was created in 2006, including thirteen NGOs, nine farmer organizations and two trade organizations working in advocacy for food security. The network is funded by membership dues and the Dutch organization Woord Daad.

2.2.2. Mozambique

In Mozambique, the two Northern provinces Nampula and Cabo Delgado have been selected as project areas for the pilot activities. An overview on the socio-economic, environmental and political situation in Mozambique is given in annex 5.

Food security situation and post harvest management

Mozambique continues to experience food insecurity at the national and household level. Except for maize and cassava, the country is a net importer of staple food and less than 25 % of smallholder families are able to cover their food needs throughout the year. Food security and agricultural production (including income generation) are generally hampered by: (i) limited access to quality inputs and services, (ii) low capacity and knowledge on technologies, (iii) distorted markets due to subsidies and partially absent market systems and linkages, (iv) low capacity on organisational and community development, and (v) adverse environmental factors as well as unclear land rights.

With regard to availability of quality seed for small scale farmers, the main impediments are: (i) limited accessibility of quality seed and services in rural areas, (ii) none stocking of seed for next campaign due to economic constrains that force families to either sell or/and consume all their harvest, and (iii) low organisational capacity of farmers and communities to assure the harvest, stocking, distribution and marketing of seed as well as grain.
The causes for high PHL in the focal areas, among others are: too early harvest, resulting in high moisture levels and shorter storage life of grains; or late harvesting resulting in insects and rodent damaging the harvest; inappropriate transport from field to storage, lack of transport infrastructure; insufficient drying of grains, unexpected rain drizzles during drying, all resulting in mold or fermentation of crops especially when stored in closed containers; conservation of stocks in open infrastructure or leaky storage systems, resulting in loss and damage of stored grain by insects and rodents.

**Institutional context related to agriculture and food security**

In Mozambique, there are similar government programs in place as in Benin with explicit focus on food security topics, such as the Poverty Reduction Plan (PARPA/PARP), the Strategy on Food Security and Nutrition (ESAN I/II) and the Strategic Agriculture Development Plan (PEDSA). The Food and Nutrition Strategy, formulated in 1999, strengthens three main pillars of food security (availability, access, utilization), explicitly mentioning storage and markets as entry points. A lot of programs such as the Action Plan for the Reduction of Absolute Poverty (PARPA II) 2006-2009, or projects under the Comprehensive Africa Agricultural Development Program (CAADP) mainly focuses on improving production aspects in rural areas (productivity, smallholder commercial farming, agrarian services, natural resource management, irrigation and dams, among others.). The Natural Disaster Prevention and Reduction Master Plan (INGC, 2006-2011) aims to reduce vulnerability to hunger due to drought and improve disaster preparedness in high risk areas, mentioning processing and storage of agricultural products as important working fields.

Hence, although PHM is mentioned in several policies and programs, there are no references on how to specifically deal with post-harvest issues or about the need to store products for hunger periods or seed for the new cropping season. In public extension, the PHM topic is not treated systematically, rather as cross-cutting issue. Anyway, most of the districts are not covered by the public extension system. In general, it seems that no systemized action nor clear objectives and approaches on PHM exist. Also, there is a lack of research and publications on the topic of PHL and PHM.

Looking at the implementation level of sectoral policies in Mozambique, beyond HELVETAS Swiss Intercooperation (e.g. SAAN project), a few non-governmental organizations, address the post harvest management issue with concrete actions, such as CLUSA Mozambique that promotes the reintroduction of metal silos, or GrainPro promoting superbags in the northern part of Mozambique since 2012 (both based in Nampula). In Cabo Delgado, the Aga Khan and Cruz Vermelha de Moçambique (Mozambican Red Cross) address PHM at limited scale (Quissanga and Meluco districts). It is recommended that the project collaborates with these NGOs, mainly on sharing experiences with regard to the SETSAAN network.

The national network SETSAAN, Mozambique's Food and Nutritional Security Technical Secretariat, includes a range of relevant government institutions (national and province level), NGOs and civil society organizations that are involved in food security topics. Synergies of the project with this network are strongly recommended since it may act as multiplier and advocate for PHM issues. Topics of collaboration should include the diffusion of key policies that address food security in the communities, the integration of concrete actions on the PHL in national policies, the strengthening of institutional co-ordination with stakeholders in food security and strengthening civil society participation in SETSAAN.
2.3. Challenges to be addressed through the project

During the scoping studies conducted in Benin and Mozambique in October/November 2012 and further analysis of its findings, the following main challenges of post harvest management in SSA were identified and shall be tackled in this project:

At institutional level:

- Lack of awareness of national and local governments regarding the relevance and potential of reducing post harvest losses, and consequently lack of concrete PHM policies and funding.
- Only few initiatives explicitly tackle the topic of PHM.
- Topic of PHM is not included in the curriculum of public extension services and rural advisory services (RAS).
- Some local NGOs and international initiatives promote the topic, but not at a broad scale.
- Lack of specific RAS tools and methodologies that allow for promoting PHM practices effectively.

At household / community level:

- Insufficient awareness on causes of PHL and means of reducing them
- Lack of organization between producers. Individual selling of crops rather than concerted marketing.
- Insufficient financial means of households forcing them to sell at harvest, hence no possibility to wait with selling for periods of higher prices; hence no means for investments, e.g. in more efficient storage techniques
- Gradual loss of traditional knowledge on local storage technologies and practices
- Inappropriate conservation methodologies, e.g. use of harmful pesticides
- Limited access to market information at the local level
- Unfavorable climatic conditions: short dry periods and high humidity hence insufficient drying of grains and frequent incidence of fungus (e.g. aflatoxin) or fermentation
- Only minor production of grains in some regions, hence lack of volumes for storage

2.4. Planning process

Tackling these challenges requires a concerted effort between multiple partners that are competent in the different fields. Accordingly, the following four main partners have joined hands for the implementation of this initiative: – HELVETAS Swiss Intercooperation, FANRPAN (consortium) with AFAAS and Agridea as associated implementing partner (see chapter 4.5).

In the frame of the opening phase, in October and November 2012, scoping studies were conducted in the two focus countries Benin and Mozambique. The studies analyzed main constraints and opportunities in PHM, local food supply chains of main grains and existing post harvest technologies, existing policies, initiatives and actors involved in food security and PHM. The results of the studies and possible modalities of interventions were discussed during stakeholder workshops in both countries in mid November 2012. In early December 2012, based on the conclusions of these workshops, a planning workshop with above mentioned partners was conducted in Switzerland in order to concretize the strategy, approaches, activities, and agree on roles and responsibilities. The tentative project set-up was then discussed with SDC and representatives of the other two initiatives of the umbrella programme, and synergies and joint coordination mechanisms identified. The finalization of this project document was realized in an iterative process which again involved all consortium partners.
3. Objectives

3.1. Goal and expected outcomes

The overall goal is to improve household food security of smallholder farmers and communities in Sub-Saharan Africa through reduction of postharvest losses (PHL) of grains and pulses by addressing main constraining factors of technology dissemination and adoption, knowledge and information sharing, and policies related to PHM. Specific objectives are:

1. To identify, further validate and disseminate successful PHM practices and systems adapted to specific socio-economic and socio-cultural contexts and addressing major market constraints in food crops value chains (grains and pulses) in selected countries (2 priority countries in first phase).
2. To reach scale and sustainability in the adoption of good PHM practices and systems through innovative approaches in rural advisory services (RAS), capacity-building and effective knowledge management.
3. To address policy constraints related to PHM issues through increased awareness of policy makers and through fostering of effective mechanisms for learning and sharing of experiences of PHM (includes linkage with other two PHL initiatives of GPFS; regional/SSA focus).

Figure 1: Goal, outcomes and outputs of PHM project

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6 The term “PHM practices and systems” refers to the use of postharvest technologies (practices) on the one hand, and the fact they are part of a system of norms, regulations, services and relationships between different actors, on the other hand. Also see chapter 4.4 – Approaches.
The goal and three expected outcomes are common for all three initiatives of the umbrella programme whereas the outputs are specific for this initiative. The figure below presents a summary of the intervention logic (details in logical framework in Annex 1, and Results Chain in Annex 2).

The working hypothesis of the programme is that good postharvest practices and systems need to be identified and scaled-up based on sound understanding of constraining factors for adoption and embedding in food crops value chains. In order to reach a bigger impact on the food security of rural households, effective knowledge sharing – e.g. through a community of practice - is crucial for capitalization of good practices of PHM tested on the ground (outcome 1), to document and disseminate good practices (outcome 2) and to serve for evidence-based formulation of policy and norms on related to PHM (outcome 3).

3.2. Impact hypothesis

Postharvest losses (PHL) in food crops (staple grains and pulses) are a major constraint for increasing food security in Sub-Saharan Africa (SSA). An increased awareness of the importance of PHL, the promotion of effective and affordable postharvest management practices and systems, combined with capacity building and facilitation of access to markets will incentivize smallholder producers to adopt improved PHM practices and systems. This will lead to improved handling and storage of staple grains and pulses resulting in reduced PHL at farm and community level hence increased food availability (quantity and quality), and increased flexibility to sell stored produce at later stage at higher prices hence higher farm incomes, all contributing to increased food security of smallholder farmers.

The compilation and dissemination of good PHM practices through effective knowledge sharing and learning mechanisms at national, regional (SSA) and global level (e.g. CoP, e-learning processes) and the use of innovative methods (RAS) for wider dissemination of PHM practices and systems will contribute to attain scale and sustainability of before mentioned impacts at household and community level.

Effective sharing of good PHM options, based on gained experience in pilot regions, will contribute to evidence-based advocacy and policy dialogue resulting in increased awareness and capacity of policy makers on PHM issues local, national and regional level. This will contribute to integration of PHM issues into regulatory frameworks (policies, standards, norms) ultimately leading to a more conducive environment attracting more investments for PHM in envisaged food crops value chains. The impact hypothesis is reflected in the results chain (Annex 2)

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7 HELVETAS Swiss Intercooperation/FANRPAN/AFAAS/AGRIDEA; FAO/IFAD/WFP; FAO-SDC Ethiopia
3.3. Summary of the logical framework (outcomes and outputs)

<table>
<thead>
<tr>
<th>Outcome 1: Improved handling and storage options within the grains and pulses value chains are benefitting smallholder farmers in pilot countries.</th>
</tr>
</thead>
</table>

The outcome 1 is based on interventions at local/national level in pilot countries, i.e. smallholder producers of main staple food crops (grains and pulses), community-based systems and other actors in these food crops value chains. In each of the pilot countries, the initiative will strategically intervene in selected areas where important food crops (grains and pulses) are produced by smallholders in sufficient quantities to store the produce for home consumption and/or sale, and where PHL is perceived as a major constraint for increased storage of produce. The use of effective and affordable PHM practices linked to creating market opportunities will create incentives to producers to increase crop production and storage for commercial purposes beyond subsistence farming. Foreseen benefits for farmers and communities from adoption of effective PHM practices are increased quantities and quality of grains and pulses stored for later use (home consumption/sale), reduction of losses due to storage pests, and increased households incomes realized from sales of stored grains and pulses of superior quality at high price periods. To achieve outcome 1, the following outputs will be obtained:

Table 1: Outputs of outcome 1

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Major constraints related to markets and community &amp; household storage strategies in relevant / selected food crops value chains have been analysed.</td>
<td>Conclusions from past post-harvest programmes showed that PHL prevention as “stand alone intervention” without linkage to markets seldom provides sufficient incentives for producers to engage in increasing crop production and to invest in storage practices and systems. Consequently, the adoption of (and investment in) PHM practices and systems depend to a high extent on creating market opportunities for producers. Therefore, the main bottlenecks for access to markets and community &amp; household storage strategies must be identified and analysed providing the base for designing successful intervention strategies (systemic view =&gt; M4P approach).</td>
</tr>
<tr>
<td>1.2 Promising PHM practices and systems have been identified, validated and further developed.</td>
<td>Generally, three types of PHM storage practices can be differentiated: i) traditional (sometimes abandoned), ii) traditional with potential for improvement/adaptation, iii) new. While the first two types are specific for each geographic intervention area, the third type at this moment includes mainly the metal silo (type Postcosecha), and supergrain / triple bags. Another important aspect to look at is drying practices. PHM systems i.e. warehouse receipt systems/warrantage will be considered for tackling the issue of access to rural finance. Effectiveness in loss reduction, cost-benefit and socio-cultural aspects need to be considered in order to select the most promising PHM practices and systems for promotion and further development. Participatory evaluation of different PHM practices at household level will allow identifying further needs for research and capacity building.</td>
</tr>
<tr>
<td>1.3 PHM practices and systems have been disseminated and adopted.</td>
<td>Promotion of PHM practices and system is initiated by creating increased awareness among stakeholders (producers and other value chain actors, private sector, government) on the importance of PHM for increased food security. Dissemination of prioritized PHM practices and systems will use innovative RAS and involve public and private actors according to their roles (ref. M4P approach). Capacity building of farmers and communities on implementation of PHM practices and systems will be crucial to enhance adoption. Conducting monitoring and adoption studies will provide the required information to derive good practice options on PHM.</td>
</tr>
</tbody>
</table>
2. Good practice options for reducing postharvest losses are compiled, disseminated and scaled-up.

The interventions under outcome 1 will produce evidence of successful PHM practices and systems and important learning for its wider dissemination to smallholder producers in SSA. Effective knowledge management, capitalisation and capacity building will allow deriving and disseminating good practice options for PHM at national and regional levels. This will be achieved through identification and use of innovative RAS methods, dissemination of good PHM practices and systems in local and regional networks, platforms, websites and CoPs, establishment of national working groups on PHM, and capacity building of relevant actors engaged in PHM.

Under outcome 2, this initiative will seek active exchange with similar initiatives (e.g. FAO-SDC Ethiopia, FAO/IFAD/WFP; CIMMYT project in Kenya, Malawi, Zambia, Zimbabwe; upcoming SDC project in Tanzania) actively contribute to the (global) CoP being established by the other umbrella initiative of FAO/IFAD/WFP. Good practice options on PHPM will allow for effective increase of awareness and capacities among relevant actors at different levels. To achieve outcome 2, the following outputs will be obtained:

Table 2: Outputs of outcome 2

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Good PHM practices and systems have been documented and used in networks.</td>
<td>Good practices will be derived from the experiences with the dissemination of PHM practices and systems in pilot countries and considering experiences from other initiatives. This capitalization process will produce attractive materials for different users in form of flyers, brochures, guides, web messages etc.) to be promoted in different networks, platforms, websites (AFAAS, GFRAS, FANRPAN, INPHO, APHLIS etc.) and CoP’s at national, regional and global (ref. CoP FAO/IFAD/WFP) level.</td>
</tr>
<tr>
<td>2.2 Innovative RAS, suitable for effective dissemination and scaling-up of PHM practices have identified and (further) developed.</td>
<td>The wider (scale) dissemination of PHM practices systems require effective and pluralistic Rural Advisory Services (RAS) that take up the topic of PHM within the envisaged food crops value chains. Appropriate and innovative RAS methods, tools, materials will be identified and further developed looking at whole RAS market systems (M4P approach(^8)). New dissemination channels using ICT and other means will be explored (SMS, web-based tools, theatre, radio etc.). Embedded RAS and private sector engagement will be crucial for reaching scale and sustainability of disseminated PHM practices and systems.</td>
</tr>
<tr>
<td>2.3 Relevant actors (RAS agents, farmer org., private sector, government officials, and policy makers) have been capacitated on PHM practices and systems.</td>
<td>Awareness and capacity building of key actors (persons/institutions) at different levels is seen as a key measure to ensure for adoption of PHM practices and systems and integrate key aspects of PHM related issues into relevant regulatory frameworks at national and regional level. Capacity building will be conducted through specific training events at national level (pilot countries) and regional level (selected countries for phase II) targeting value chain actors (farmer org. but not farmers: covered under output 1.3), service providers, and public sector (government officials, policy makers). Learning events/CoPs will also contribute to capacity-building efforts.</td>
</tr>
</tbody>
</table>

\(^8\) see link RAS with M4P, synthesis e-discussion A+FS/e+i networks of SDC, June 2012
3. Appropriate regulatory frameworks (policies, standards, norms and protocols) on reducing postharvest losses in food supply chains are introduced and implemented at national and regional levels and financing is secured.

Appropriate regulatory frameworks are crucial for creating an enabling environment and for attracting more investments for PHM in the envisaged food crops value chains. Outcomes 1 and 2 will lay the basis of evidence-based advocacy and policy dialogue on PHM related issues. Advocacy and policy interventions will focus primary on the level of selected pilot countries and on the level of regional institutions and stakeholders. Through FANRPAN’s regional policy research and advocacy network covering 16 countries in Eastern and Southern Africa (West African countries to be included in 2013), this initiative also establishes a link to NEPAD/CAADP (especially pillar II on rural infrastructure and trade-related capacities for market access, and pillar III on food and nutrition security), IFI’s, Regional Economic Communities with the aim to inform regional policy dialogues on PHM. To achieve outcome 3, the following outputs will be obtained:

**Table 3: Outputs of outcome 3**

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Relevant policy briefs related to PHM have been elaborated and made available.</td>
<td>Based on an initial evaluation of the status of PHM policies in the two focal countries, the need for relevant policy briefs will be identified. The project will facilitate a process for production of policy briefs to ensure that available evidence feeds into policy dialogue. Relevant policy information will be disseminated through appropriate channels, i.e. strategic events, website, social media, CoP’s etc.</td>
</tr>
<tr>
<td>3.2. PHM has been included in the agendas of local, national and regional policy dialogue platforms.</td>
<td>Multi-stakeholder platforms at local, national and regional level bring together farmer organizations, private sector actors, researchers, senior government officials, parliamentarians, policy makers and the media and serve as effective innovation platforms for learning, sharing information, raising awareness and addressing policy bottlenecks in relation to PHM. The initiative will also establish linkages and coordinate with on-going policy and advocacy activities of FAO, IFAD, WFP (e.g. Agriculture Rural Dev. Day, CEO FANRPAN as panellist at Governing Council IFAD, collaboration with WFP in Purchase for Progress (P4P) initiative, FANRPAN’s participation in Regional Conservation Agriculture working group, etc.). (Capacity-building of government officials and policy makers: see output 2.3)</td>
</tr>
<tr>
<td>3.3 Frameworks for food standards and norms have integrated PHM aspects.</td>
<td>Inadequate policy and regulatory frameworks commonly constitute the most difficult obstacles overcome. Evidence based policy and advocacy and capacity building of government officials and policy makers will make a significant contribution to formulation and implementation of appropriate regulatory frameworks related to PHM in the selected focal countries and at regional (SSA) level.</td>
</tr>
</tbody>
</table>

**3.4. Description of activities**

Guiding activities are indicated in the logframe (Annex 1) and will be further specified in Yearly Plans of Operations.
4. Implementation Strategy

4.1. Intervention strategy

The intervention strategy of the project is oriented toward the overall intervention logic of the umbrella programme on PHM in SSA of the GPFS, taking into consideration linkages to the other two initiatives of the programme wherever this is possible and has potential to create synergies.

In this project, PHM practices and systems are promoted not as “stand alone” packages but are embedded within a wider strategy of increasing food security and foster market development resulting in economic benefits that ultimately reduce the vulnerability of the rural smallholders to external shocks (climate, prices). In line with this, post harvest challenges are tackled by a systemic approach, considering PHM as a market system in which a range of functions and services need to be in place in order to make the PHM system operational (see next chapter: M4P).

At the level of rural households and communities, a two-prong strategy is envisaged:

1) PHM and storage of grains and pulses as a strategic element for ensuring food supply in households and communities (net deficit grain production).

2) PHM of grains and pulses as a commercial activity for income generation through improved market access, i.e. grain storage and PHM as an element in food value chains where the flexibility in storage allows households, communities or small businesses to benefit from seasonal price fluctuations (net surplus grain production).

However, above mentioned strategy does not mean to have two differentiated target groups during project implementation. The differentiation rather reflects different storage strategies at household and community level which are important to consider for M&E purposes (see also sub-chapter on target groups). At the national, regional and continental (SSA) level, the project is based on the following four main strategies:

1) Building awareness and capacity of key actors (RAS agents, farmer organizations, private sector actors, government officials and policy makers) on importance of PHM for increased food security

2) Organizing and promoting learning and sharing: This entails documenting (capitalization) of good practice options for effective PHM its use in different networks through organizing and active participation in e-learning processes and Community of Practices.

3) Development and use of innovative RAS approaches and tools for effective dissemination of PHM practices and systems (applying concept of pluralistic RAS, using new tools and dissemination channels based on ICT, etc.)

4) Contributing to advocacy and policy dialogue: Advocacy and policy dialogue at local, national and regional level as an effective means to raise awareness and capacity of key actors leading to inclusion of PHM issues in agendas of policy making and revision of regulatory frameworks

4.2. Geographical Focus

The initiative has a regional focus on SSA by linking its activities to on-going and upcoming national and regional initiatives. In the first phase, pilot activities for the development and dissemination of PHM schemes will be implemented in two focal countries of the sub-regions of Western Africa (Benin) and Southern Africa (Mozambique), whereas the strengthening of networks, policy dialogues and knowledge sharing also includes a regional dimension. Starting towards the end of phase 1, the initiative is expanded (out-scaling) to other countries in the sub-regions (e.g. Burkina Faso, Mali, Malawi, Tanzania, Zambia, or Zimbabwe). A definitive selection will be conducted towards the end of the 3rd year of phase 1 and will seek synergies with other on-going initiatives (e.g. CIMMYT, SDC Tanzania etc.).
Based on the results of the scoping study, the following zones were selected in the two pilot countries:

Table 4: Selected zones in pilot countries

<table>
<thead>
<tr>
<th>Benin</th>
<th>Two zones:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• The communities of Boukombé and Coblé in the Northern department of</td>
</tr>
<tr>
<td></td>
<td>Atacora, also optionally Matéri and Tanguiéta (with possible synergies</td>
</tr>
<tr>
<td></td>
<td>with ongoing projects of HSI).</td>
</tr>
<tr>
<td></td>
<td>• The communities of Comé and Klouékannmè in the Southern departments of</td>
</tr>
<tr>
<td></td>
<td>Mono/Couffo, which constitute the “granaries” of the department.</td>
</tr>
<tr>
<td>Mozambique</td>
<td>Two Northern provinces:</td>
</tr>
<tr>
<td></td>
<td>• Province of Cabo Delgado: communities in four districts of Chiure, Ancuabe,</td>
</tr>
<tr>
<td></td>
<td>Mecufi and Macomia.</td>
</tr>
<tr>
<td></td>
<td>• Province of Nampula: communities in the four districts of Mecuburi, Muecate,</td>
</tr>
<tr>
<td></td>
<td>Erati and Nacaroa</td>
</tr>
<tr>
<td></td>
<td>In both provinces synergies will be sought with on-going project SAAN of HSI.</td>
</tr>
</tbody>
</table>

Selection criteria applied to define geographical intervention zones were: Areas of food insecurity, sufficient production of food grains and pulses, storage of grains and pulses perceived as a problem i.e. the potential for PHL reduction, knowledge of and operational capacity (including other projects and partners) in the intervention areas.

4.3. Target groups and outreach

The primary target group (direct clients) are smallholder farming households and rural communities in the two pilot countries (first phase). The intervention focuses particularly on net-deficit grain agricultural producers implying that there is sufficient production of food grains and/or pulses to justify investment in storage at household and/or community level. In good production years, these producers usually become net-surplus producers. Keeping a poverty focus, better off farming household that produce grains and pulses specifically for markets will certainly have access to improved PHM practices and systems, but do not constitute a primary target group.

For the first phase, it is expected to have a total outreach of 100’000 rural households – in the two pilot countries – that are benefitting from improved PHM practices and systems, awareness and capacity building, and regulatory frameworks, i.e. i) 10’000 rural households adopting new PHM practices and systems, and ii) an additional 90’000 rural households capacitated or sensitized on PHM issues through trainings and awareness campaigns using mass media (Radio/TV, SMS, internet etc.) and effectively benefitting from improved institutional frameworks (local PHM policies, regulations and norms).

The secondary target group (indirect clients) are local farmer organizations, RAS agents, private sector actors, staff from NGO’s and governments, and policy makers which are all considered as “change agents” in terms of improved PHM.

4.4. Approaches

Systemic approach: applying the M4P framework

The “Making Markets Work for the Poor approach” (M4P) is a key analytical framework which will be applied at two levels:

a) Looking at PHM as a market system

Following the M4P logic, supply and demand of food grains constitute the main market system (food crops value chains) in which PHM is an important supporting function i.e. households and
communities will have access to improved storage options as important aspect for enhanced market integration. Whereas PHM services can be seen as a market system in itself (see Figure 2). On the supply side, viable businesses for PHM technologies and services are established through capacity building and access to credit, responding to raising demands for affordable and effective PHM facilities. By addressing PHM issues further (e.g. at the policy level, regulatory frameworks), this will result in a better market integration of producers, ultimately leading to improved quantity and quality of food supplies and increased incomes through sales of stored grain at higher prices (selling later during high price season).

Figure 2: Interconnected market systems under M4P logic

b) Pluralistic RAS – a systemic view:

The M4P will also be used to analyse the functioning of existing RAS systems for PHM (RAS seen as service markets). RAS are provided by public and/or private actors, they are formal and/or informal, embedded within transactions (e.g. input supply) with different financing models – hence pluralistic.

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9 See also input papers on M4P-RAS produced for the joint event of A+FS/E+I networks SDC, May 2012.
Innovation in RAS

Depending on the specific local institutional and market context and based on a thorough analysis of constraints in the existing RAS systems, the project aims to identify actors within the RAS market system who may take a key role in disseminating knowhow and successful methodologies of PHM to smallholders and communities. For instance, local traders who aim for increasing the percentage of pest-free grains purchased from the farmers may have an important interest in providing farmers with the required knowhow on how to reduce pests during storage. They may act as conveyer of promotion material or decide to conduct trainings and follow-up with the farmers they buy produce from – both are examples of embedded RAS.

As another example of successful adaptation of RAS methods, in Eastern Africa the Farmers’ Field Schools approach – originally coming from the Integrated Pest Management (IPM) – was extended to Integrated Pest and Postharvest Management (IPPM). Farmers are trained not only on the production cycle in the field, but also with regard to improved handling of the crop during harvest, transport and storage, applying the same approach of farmer-to-farmer learning and exchange. To further extend this approach, e.g. combining it with embedded services mentioned above, training and demonstration activities can be followed-up by PHM experts from the public or private sector who bring in the necessary knowhow with regard to quality management, treatment of the grain or proper construction and handling of storage facilities.

Operative knowledge management and learning

The creation and sharing of evidence-based knowledge is a core element of this project. In line with the M4P approach which takes a holistic look at the postharvest management system, its divers functions and actors, knowledge sharing and learning is required at all levels and needs to include a broad range of relevant stakeholders, including farmers, farmers' organisations, local entrepreneurs, rural advisory organisations, research institutions, private companies engaged in food business, NGO’s, and local and national governments. Not all of these stakeholders share the same issues and interests. Hence project aims to facilitate a focused exchange and sharing of experience and knowhow among actors who can mutually learn from each other.

A central tool in the promotion of knowledge sharing will be the new CoP developed by the FAO/IFAD/WFP consortium. This initiative will strengthen the participation of the mentioned stakeholders and partner in this new platform and contribute thematically by bringing in experience from pilot activities, from policy dialogues and innovations in the RAS system. Apart from this, other e-learning processes will be used for knowledge sharing on different levels.

Capacity building

Capacity development is needed at all levels, from farmer to farmer interaction to linking researchers and training institutions, from organisational development to political lobbying at national and international level. Capacity building is sought at three different levels:

- On the thematic and technical level: appropriated postharvest techniques, systems and schemes for the different grains and pulses in the various contexts, with a strong focus on the most disadvantaged producer groups.
- On the methodological level: RAS methodologies that are the most appropriated to treat PHM issues and bring them in the existing RAS systems applying the concept of pluralistic RAS.
- On the political level: to sensitize decision makers at local, national and regional level so that they are more knowledgeable about importance of PHM issues and make internal or external investments available.

Contribution to creation of conducive policy frameworks for PHM

Inadequate policy and administrative frameworks commonly constitute the most difficult obstacles to overcome. Also, their implementation is not always successful. One strength of this initiative – through FANRPAN’s network – is the proximity/direct access to politicians and policy makers at high
level. In addition, the incorporation of new “non-traditional” stakeholders such as parliamentarians and media professionals will i) help increase the political importance of PHM issues at national and regional level and the translation of policy recommendations into policy decisions, and ii) contribute to sensitization of policy makers and key stakeholders on critical issues related to PHM.

The proven convening power of multi-stakeholder policy dialogue platforms facilitated by FANRPAN will contribute to inserting the topic of PHM in national and regional policy debate and as strategic element in national growth and investment plans. The conducive policy environment will be achieved through building capacity of policy actors by helping the supply side to analyze and formulate appropriate PHM policies, and the demand side to articulate needs and inform PHM policy development.

**Addressing gender and social equity**

In terms of gender and social equity, the intervention will put an important focus on addressing bottlenecks of PHM and strengthen capacities in PHM of women and other disadvantaged groups. During the preparation of the project in Benin, as an example, it was found that in several intervention zones a lot of households are led by women, because of migration and other effects. Women are usually disadvantaged in terms of land property, access to credits and access to other productive resources. Hence particular attention needs to be given to the identification and development of appropriate PHM technologies that are accessible to women, considering aspects of workload and access to benefits from improved PHM. Experiences from Central America (Postcosecha) demonstrate benefits of improved PHM especially for women (workload, hygiene etc.).

4.5. **Roles and Responsibilities**

The particularity of the present proposal is the linkage between the field and country experiences of Helvetas Swiss Intercooperation and the two African networks FANRPAN and AFAAS, the latter supported methodologically by Agridea. Both African networks operate at regional (SSA) level and are linked with continental processes and frameworks such as NEPAD/CAADP, African Union (AU), Regional Economic Communities (RECs: ECOWAS, COMESA), FARA, Sub- regional Research Organisations (SRO) etc.

Regarding the three outcomes of the present intervention, the four partners divided their main responsibilities roughly as follows: HSI has the lead for overall coordination and for outcome 1, AFAAS supported methodologically by Agridea intervenes more in the activities and concrete outputs related to outcome 2, and FANRPAN has a lead role for outcome 3. Nevertheless, in order to create good synergies, all partners have complementary roles to play in activities of other outcomes where they do not have the lead. A more detailed indication of roles and responsibilities is presented in Table 5.

**Table 5: Main roles and responsibilities of the four implementing partners**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Roles and responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>HELVETAS Swiss Intercooperation</td>
<td>• Overall coordination and lead of the initiative (incl. reporting to SDC)</td>
</tr>
<tr>
<td></td>
<td>• Implementation and coordination of pilot activities in two focus countries</td>
</tr>
<tr>
<td></td>
<td>• Technical backstopping on postharvest and M4P approach</td>
</tr>
<tr>
<td></td>
<td>• Linkage of project with other 2 PHM initiatives of GPFS (FAO/IFAD/WFP; FAO-SDC Ethiopia)</td>
</tr>
<tr>
<td></td>
<td>• Linkage with other PHM initiatives (joint responsibility)</td>
</tr>
<tr>
<td>FANRPAN</td>
<td>• Conduct policy analysis related to PHM</td>
</tr>
<tr>
<td></td>
<td>• Convening of local, national, and regional policy dialogue platforms and other policy</td>
</tr>
<tr>
<td></td>
<td>related processes</td>
</tr>
<tr>
<td></td>
<td>• Establish link between initiative and other national and regional</td>
</tr>
<tr>
<td></td>
<td>Processes/Frameworks (CAADP, RECs etc.)</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>• Follow-up on PHM issues being addressed at policy level</td>
</tr>
<tr>
<td>AFAAS</td>
<td>• Develop/innovate and appropriate Rural Advisory Services for PHM</td>
</tr>
<tr>
<td></td>
<td>• Capitalize and disseminate successful PHM experiences through national and regional RAS networks</td>
</tr>
<tr>
<td></td>
<td>• Conduct capacity building on RAS for PHM</td>
</tr>
<tr>
<td></td>
<td>• Link initiative with other African networks especially in relation to RAS</td>
</tr>
<tr>
<td>AGRIDEA</td>
<td>• Strengthen/backstop AFAAS in establishing functional country fora (especially in Benin and Mozambique)</td>
</tr>
<tr>
<td></td>
<td>• Ensure link with GFRAS (secretariat hosted by Agridea)</td>
</tr>
<tr>
<td></td>
<td>• Provide conceptual advice on development and use of innovative RAS for PHM</td>
</tr>
<tr>
<td></td>
<td>• Capitalization of experiences related to RAS for PHM</td>
</tr>
</tbody>
</table>

### 4.6. Linkages with other PHM mandates of SDC and further initiatives

This initiative will establish links with other on-going and upcoming PHM mandates financed by SDC (global and regional cooperation):

- FAO/IFAD/WFP (starting in 2013)
- FAO-SDC Ethiopia (starting in 2013)
- Postharvest project (metal silo, superbags) implemented by CIMMYT (Kenya, Malawi, Zambia, Zimbabwe, second phase started in 2012)
- Postharvest project in Tanzania (metal silo, superbags, other innovations; starting in 2013)
- Harmonised Seed Security Project (HaSSP) implemented by FANRPAN in Malawi, Swaziland, Zambia and Zimbabwe (2010-2013).

Annex 7 illustrates the linkage between the different initiatives in relation to the three common outcomes. Particular emphasis will be given to contribute to and learn from the other initiatives through the capitalisation of successful experiences in PHM and to feed these experiences into networks (especially AFAAS and FANRPAN), e-learning processes and the CoP which will be facilitated by the FAO/IFAD/WFP initiative of GPFS.

In addition and beyond SDC supported initiatives in SSA, linkages will be established to on-going policy/advocacy activities e.g. FANRPAN is a collaborator with WFP purchase for progress (P4P) initiative. P4P provides smallholder farmers in 21 pilot countries with a greater incentive to invest in their production; at the same time invests in capacity building at country level in areas such as post-harvest handling or storage.

An overview of regional networks/partners this initiative could establish links with to create synergies on policy and advocacy work is given in Annex 8.

### 4.7. Sustainability of project, scaling up and scaling out

The combination of approaches and intervention strategies described above have the aim to achieve systemic and sustainable changes with regards to PHM practices and systems. The thorough screening and assessment of PHM practices and technologies and their validation in the context of pilot areas in the two countries will ensure that only PHM options which are socially and culturally acceptable and economically viable are promoted. Furthermore, the M4P lens will allow for identifying the most important constraints in the postharvest market system – including research.

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10 AFAAS receives core support from IFAD and SDC to establish country fora in Mozambique and Benin, respectively.

11 [http://www.wfp.org/purchase-progress/overview](http://www.wfp.org/purchase-progress/overview)
capacity building, RAS, market information as well as the regulatory framework such as norms and quality standards – and to focus the project interventions on the essential bottlenecks.

One main element of the project to reach scale is the use and further development of innovative RAS methodologies and tools that are most effective for the dissemination of the experiences and know-how gained from the assessment and validation of PHM practices. These innovative RAS will allow for providing capacity building to a large number of farmers through key actors (multipliers) of local governments, NGOs, local service providers, companies etc. – on the one hand in the same or neighbouring areas of the pilot countries (scaling up), and at a later stage of the project by reaching the mentioned multipliers in other selected countries (scaling out).

Scaling-up and scaling-out will be achieved through building capacity and institutional systems (sustain and replicate), proactive information sharing and learning, partnership forging and networking, and advocacy and policy dialogue through systematic work with authorities at the local, national and regional level. This shall result in new PHM initiatives to emerge, more policies and funding mechanisms for PHM to be created and a better framework of PHM norms and standards to be established both in the two pilot countries and the new countries of the second phase. In M4P terms: attain systemic changes and scale through copying and crowing-in, i.e. increased reach, breadth and depth.

Finally, to reach scale beyond the project countries and intervention areas of this project, a lively sharing of experiences and know-how at regional and international events and in the new CoP on PHM will be practiced.
5. **Organization, Management and Administration**

5.1. **Project phases**

The total duration of the project is six years and is split up into a first phase of four years (April 2013 to March 2017) and a second phase of two years (April 2017 to March 2019). This project document refers to the first project phase (4 years).

The key focus of the first phase is on the identification, analysis and validation of PHM practices and policies (in two focus countries, but also regionally), the development of appropriate methods and networks for their dissemination and the capacity building of key actors in national and local governments, local service providers, NGOs and farmer organizations.

Based on the evidence and tools developed and through the multipliers capacitated in the first phase, the second phase will focus on applying the experiences and tools on a broad scale in the focus countries (up-scaling) and in further countries (out-scaling), with a main focus on capacity building at household and community level. At the end of year 3 / beginning of year 4, new countries will be selected. As preparatory step for the second phase, first sensitization and capacity building of key partners at the institutional level (RAS, local NGOs, service providers) will be conducted in these new countries in year 4. Those institutions will then act as multipliers for the further dissemination of PHM practices at the household and farm level in the second project phase.

5.2. **Project set-up and coordination**

**General coordination / Head Office HSI:** The overall coordination of the project is with HELVETAS Swiss Intercooperation. The general coordinator, based at HO in Zurich is in charge of project cycle management and has the overall responsibility for the execution of the project. Besides the guidance and supervision of operations, the general coordinator is in charge of key planning and coordination of events such as the yearly operational planning and meetings of the steering committee. He is the main contact person for SDC and coordinates the communication and administration with the head offices of FANRPAN, AFAAS and Agridea, as well as to partner organizations of the other two PHM initiatives.

**Technical backstopping / Head Office HSI:** A technical advisor at HO of HSI provides backstopping to the general coordinator and project partners, is involved in all main consultative, planning and monitoring processes of the project, and ensures transfer of experiences from other relevant projects of HSI and key partners.

**Focal persons / Country Office HSI:** All project activities that are implemented in the focal countries are coordinated by appointed focal persons at HSI country office (Maputo resp. Cotonou). The focal persons directly respond to the general coordinator, ensure communication with the country director and the coordination with other activities of the country programme. The focal persons are supported by field coordinators and partner organizations in the project areas. The focal persons are in charge of ensuring coordination (coordination committees) of all activities implemented at national level with the FANRPAN country node, the AFAAS country forum and further partners. They also ensure communication and coordination with the SDC Cooperation Offices in the country.

**Field coordinators HSI:** The field coordinators of HSI are responsible for coordinating and conducting all field activities related to the validation and dissemination of PHM practices in the pilot areas, and coordinating related studies realized in these areas. They report to the respective focal person of HSI in the country.

**FANRPAN regional coordination / head office Pretoria:** All FANRPAN activities implemented at the regional level (not taking place in the two focus countries) are directly coordinated by the
FANRPAN coordinator who is based at FANRPAN head office in Pretoria. He/she is also responsible for supervising activities of local FANRPAN staff in the focal countries (country nodes).

**FANRPAN backstopping policy support / head office Pretoria:** Policy advocacy work facilitated by FANRPAN (outcome 3) will be supported by a backstopper who will provide guidance on policy analysis related to PHM, conduction of national and regional policy dialogues, incorporation of PHM issues into regulatory frameworks, and monitoring of implementation of improved framework.

**FANRPAN country nodes:** In the two focal countries, FANRPAN works through country nodes that are based at local partner institutions. The FANRPAN country nodes respond to FANRPAN head office. Activities in the focal countries Benin and Mozambique which relate to this project but which get directly implemented through the FANRPAN network are coordinated by FANRPAN. All other local and national activities related to this mandate are coordinated by the HSI focal points and are closely coordinated with the FANRPAN country nodes. In Mozambique the country node is based at the Eduardo Mondlane University in Maputo. In Benin the process of creating a country node with the assessment of potential hosting institutions is in progress and will be concluded by September 2013. The FANRPAN country nodes coordinate their work with the focal persons HSI Benin resp. Mozambique.

**AFAAS regional coordination:** The AFAAS coordinator, based at AFFAS head office in Uganda, has the lead in the implementing activities related to outcome 2. He/she directly coordinates all regional AFAAS activities related to this initiative (activities not taking place in the two focus countries) and supervises the work of AFAAS country fora in the two focal countries.

**AFFAS country fora:** In the focal countries, AFAAS works through country fora that are country owned and based at member institutions. The AFAAS country fora respond to AFAAS head office. Activities in the focal countries Benin and Mozambique which relate to this project but which get directly implemented through the AFAAS network are coordinated by AFAAS. All other local and national activities related to this mandate are coordinated by the HSI focal points and are closely coordinated with the AFAAS country fora. The Benin country forum is based at the Cotonou University. In Mozambique the country forum being established will be based in the Ministry of Agriculture. AFAAS is in the process of appointing a person, to be confirmed by March/April 2013. The AFAAS country fora coordinate their activities with the focal persons of HELVETAS Swiss Intercooperation Benin resp. Mozambique.

**Agridea, technical advice:** Agridea, through one staff based in Switzerland, coaches and supervises AFAAS to ensure the implementation of activities related to outcome 2, provides technical and methodological backstopping to AFAAS and supports them in establishing the country fora and in creating linkages to partners and networks.

External consultants will be contracted for specific tasks according to need, e.g. moderation of M4P workshops, analysis of PHM technologies etc.

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12 FANRPAN network operates through an inter-sectoral platform called a “node”. For FANRPAN to establish a node in Benin the process starts by an assessment of the capacity of the selected institutions; preferably three front-running organizations. The assessment is called a Partner Institutional Viability Assessment (PIVA) of the potential country node hosting institutions. If and when the selection criterion is fulfilled, a national stakeholders meeting to indorse the selected institution is convened. After the endorsement, the node hosting institution, as a representative of a member country, is accepted as a member at the network at FANRPAN Annual General Meeting (AGM) which is hosted every September concurrently with the Annual Regional Policy Dialogue. Even though national policy advocacy activities of the PHL project in Benin might continue, admission of Benin as a network member will happen at the AGM to be held week of the 2nd of September 2013 in Lesotho.
In each focal country, a coordination committees consisting of the HSI focal person, FANRPAN country node, AFAAS country forum, local key partners of the project and selected experts will meet on a quarterly basis and coordinate the implementation of local activities. Out of this pool of experts, specific task forces will be created with the aim to develop ideas and solutions for defined topics, foster knowledge exchange on these thematic fields and bring in experiences in capacity building processes. The meetings of the coordination committees and the work of task forces is coordinated by the HSI focal point.

A regional coordination and advisory group ensures the thematic and organizational coordination between the three initiatives of the PHM umbrella programme, the exchange of information on progress and results, the convening of joint activities mainly at regional level, and mutual advice on future activities of the different projects. The group consist of two or three members of each project, an SDC representative from Bern and possibly further resource persons from relevant initiatives (e.g. CIMMYT South Africa, PHM project Tanzania) and meets on a yearly basis, ideally back-to-back to a regional PHM event.

5.3. Steering
The Steering of the project is ensured through a steering committee consisting of one or two representatives of each partner organization (not operational staff), the general coordinator (no vote), one representative of SDC Switzerland and optionally external resource persons (no vote, acts also as secretary). The steering committee will convene once a year face-to-face meetings or

Figure 3: Organizational flow-chart of the PHM project
via video conference, whenever possible combined with regional key events. The role of the steering committee is to decide on the strategic orientation of the project, approve annual reports, annual work plans and yearly budgets.

5.4. **Financial management and reporting**

HELVETAS Swiss Intercooperation, through the general coordinator, administrates all project funds and reports back to SDC / GPFS (see chapter 8.3 – Reporting system). Budgets are allocated to HSI country offices, AFAAS, FANRPAN and Agridea based on annual budgets and yearly plans of operation. The head offices of AFAAS and FANRPAN are responsible for consolidated reporting of all local (country fora / policy node) and regional activities to HSI as defined in the consortium contracts and MoU’s.

**Figure 4: Financial flows and reporting**
6. Resources

6.1. Human resources
The coordination of this regional project with two pilot countries and several implementing partners is demanding and requires a relatively high number of human resources at different levels (head-office, regional coordination, country office/forum, field). The main functions are indicated in the table below (TOR of key personnel in Annex 6):

Table 6: Main functions and human resources

<table>
<thead>
<tr>
<th>Organization</th>
<th>Function</th>
<th>Based in</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSI Switzerland</td>
<td>General coordinator</td>
<td>Head-office, Zurich/Bern</td>
</tr>
<tr>
<td></td>
<td>Technical backstopping</td>
<td>Head-office, Zurich/Bern</td>
</tr>
<tr>
<td>HSI Mozambique</td>
<td>Focal point</td>
<td>Country office, Maputo</td>
</tr>
<tr>
<td></td>
<td>Field coordinator</td>
<td>Pemba</td>
</tr>
<tr>
<td>HSI Benin</td>
<td>Focal point</td>
<td>Country office, Cotonou</td>
</tr>
<tr>
<td></td>
<td>Field coordinator</td>
<td>Natitingou</td>
</tr>
<tr>
<td>FANRPAN</td>
<td>Coordinator</td>
<td>Head-office, Pretoria</td>
</tr>
<tr>
<td></td>
<td>Backstopping policy support</td>
<td>Head-office, Pretoria</td>
</tr>
<tr>
<td></td>
<td>Country Node, Mozambique</td>
<td>UEM, Maputo</td>
</tr>
<tr>
<td></td>
<td>Country Node, Benin</td>
<td>Cotonou</td>
</tr>
<tr>
<td>AFAAS</td>
<td>Coordinator</td>
<td>Kampala</td>
</tr>
<tr>
<td></td>
<td>Country Forum, Mozambique</td>
<td>UEM, Maputo</td>
</tr>
<tr>
<td></td>
<td>Country Forum, Benin</td>
<td>Université de Cotonou</td>
</tr>
<tr>
<td>Agridea</td>
<td>Technical methodological advise, RAS</td>
<td>Head-office, Lindau/Switzerland</td>
</tr>
</tbody>
</table>

6.2. Infrastructure and equipment
For the implementation of activities the project will mainly use existing facilities and infrastructure of the implementing partners, in particular office space, office equipment and car fleet.

6.3. Budget
Table 7 summarizes the budget of the first phase, four years split up in calendar years. The overall budget is CHF 2’820’475, thereof CHF 1’515’475 for personnel and operational expenses, and CHF 1’305’000 for output / project activities. The detailed budget is presented in Annex 3.
Table 7: Budget of first project phase (4 years)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel / Fees</td>
<td>261'801.50</td>
<td>277'335.00</td>
<td>276'835.00</td>
<td>252'335.00</td>
<td>73'578.50</td>
<td>1'141'885.00</td>
</tr>
<tr>
<td>Operational expenses (Travel, accom., equipment, operating costs)</td>
<td>89'310.00</td>
<td>89'170.00</td>
<td>93'550.00</td>
<td>82'940.00</td>
<td>25'020.00</td>
<td>373'590.00</td>
</tr>
<tr>
<td>Outputs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis of constraints of market/storage strategies of food crops VC</td>
<td>55'000.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>55'000.00</td>
</tr>
<tr>
<td>Identification/validation/development of PHM practices and systems</td>
<td>5'125.00</td>
<td>102'500.00</td>
<td>5'125.00</td>
<td>0.00</td>
<td>0.00</td>
<td>205'000.00</td>
</tr>
<tr>
<td>Promotion of dissemination/adoptions of PHM practices and systems</td>
<td>34'500.00</td>
<td>69'000.00</td>
<td>103'500.00</td>
<td>103'500.00</td>
<td>34'500.00</td>
<td>345'000.00</td>
</tr>
<tr>
<td>Documentation of good PHM practices and systems</td>
<td>8'500.00</td>
<td>17'000.00</td>
<td>25'500.00</td>
<td>25'500.00</td>
<td>6'500.00</td>
<td>85'000.00</td>
</tr>
<tr>
<td>Development of innovative RAS for dissemination of PHM practices</td>
<td>35'000.00</td>
<td>17'500.00</td>
<td>17'500.00</td>
<td>0.00</td>
<td>0.00</td>
<td>70'000.00</td>
</tr>
<tr>
<td>Capacitation of relevant actors on PHM practices and systems</td>
<td>16'500.00</td>
<td>33'000.00</td>
<td>40'500.00</td>
<td>40'500.00</td>
<td>16'500.00</td>
<td>165'000.00</td>
</tr>
<tr>
<td>Elaboration of relevant policy briefs related to PHM</td>
<td>12'000.00</td>
<td>12'000.00</td>
<td>18'000.00</td>
<td>18'000.00</td>
<td>0.00</td>
<td>60'000.00</td>
</tr>
<tr>
<td>Promotion of PHM in local, national, regional policy dialogue platforms</td>
<td>21'000.00</td>
<td>63'000.00</td>
<td>63'000.00</td>
<td>52'500.00</td>
<td>10'500.00</td>
<td>210'000.00</td>
</tr>
<tr>
<td>Integration of PHM aspects in frameworks for food standards &amp; norms</td>
<td>7'500.00</td>
<td>19'500.00</td>
<td>13'000.00</td>
<td>8'000.00</td>
<td>2'000.00</td>
<td>50'000.00</td>
</tr>
<tr>
<td>Monitoring, Evaluation and Capitalization of Experiences</td>
<td>12'000.00</td>
<td>15'000.00</td>
<td>15'000.00</td>
<td>15'000.00</td>
<td>3'000.00</td>
<td>60'000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>601'362</strong></td>
<td><strong>711'005</strong></td>
<td><strong>726'635</strong></td>
<td><strong>607'275</strong></td>
<td><strong>174'199</strong></td>
<td><strong>2'820'475</strong></td>
</tr>
</tbody>
</table>
7. **Risks analysis**

Being a regional/(SSA) initiative being implemented in different contexts and with many actors, and coordinated/linked to other PHM initiatives funded by SDC, there are number of risks involved. Table 8 below lists the major risk indicating probability, impact and mitigation measurements grouped according to risk categories (political, economic, socio-cultural, ecological, coordination).

**Table 8: Risks, Probability of Occurrence, Impact and Mitigation Measures**

<table>
<thead>
<tr>
<th>Risk (External / Internal)</th>
<th>Probability</th>
<th>Impact</th>
<th>Mitigation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political/policy related:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political instability, upheavals and armed conflicts. (e.g. Mali conflict spreading?)</td>
<td>low-medium</td>
<td>high</td>
<td>The politicians will maintain a neutral position, be sensitive of conflicts and thus secure peace</td>
</tr>
<tr>
<td>Changes linked to political power and government staff rotation.</td>
<td>low-medium</td>
<td>medium</td>
<td>Indications point at little changes in the upcoming 2014 elections with no major power shift expected (Mozambique. Apply stringent criteria in selection of government staff receiving training.</td>
</tr>
<tr>
<td>Conflicting interests, political interference resulting in long processes (regulatory frameworks).</td>
<td>low-medium</td>
<td>medium</td>
<td>Awareness-building, advocacy and evidence-based policy dialogue to convince politicians/policy makers about strategic importance of PHM for increased food security.</td>
</tr>
<tr>
<td>Inadequate policies and administrative frameworks.</td>
<td>medium</td>
<td>medium</td>
<td>Sound analysis of gaps in existing policies and frameworks. Proximity/direct access to politicians and policy makers. Conducting effective policy dialogue.</td>
</tr>
<tr>
<td><strong>Economic/Financial:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High costs of technologies for drying and storage, unfavourable C/B ratios.</td>
<td>low-medium</td>
<td>medium</td>
<td>Offer affordable options at different price levels; reduce costs of materials (e.g. waiver of VAT on imported galvanized steel for metal silo, superbags, etc.)</td>
</tr>
<tr>
<td>Economic situation of households as hindering factor for adoption of new PHM practices.</td>
<td>medium</td>
<td>medium – high</td>
<td>Selection of households with enough purchasing power; keep poverty focus by testing and applying &quot;smart subsidies&quot; (e.g. subsidy model Postcosecha in Guatemala).</td>
</tr>
<tr>
<td>Unforeseen price fluctuations of grain/pulses commodities.</td>
<td>medium</td>
<td>medium - high</td>
<td>Promote sound models for storage and marketing, higher prices as opportunities to realize premium prices for stored grain.</td>
</tr>
<tr>
<td>Imported food sold at dumping prices, making local supply not competitive, de-motivating rural households to invest in PHM</td>
<td>Low-medium</td>
<td>High</td>
<td>Bring in issue through policy dialogue with governments, facilitate formulation of appropriate policies.</td>
</tr>
<tr>
<td>Foreign actors / investments (land grab, buying of staples) increasing local food insecurity and undermining local supply chains.</td>
<td>Low-medium</td>
<td>Medium</td>
<td>Coordination of this initiative with companies/programs, include them in implementation strategy and as multipliers to promote PHM strategies...</td>
</tr>
<tr>
<td>Risk (External / Internal)</td>
<td>Probability</td>
<td>Impact</td>
<td>Mitigation measures</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>-----------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Market distortion by relief programmes and the governments distribute free or heavily subsidised food, inputs and PHM technologies.</td>
<td>medium</td>
<td>medium</td>
<td>Link and coordination with the relief interventions by governmental and non-governmental agencies. Work with private sector actors to develop sound supply chains. Facilitate and lobby for a free market systems.</td>
</tr>
<tr>
<td><strong>Socio-cultural:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socio-cultural and/or religious barriers hinder the adoption of new PHM practices and systems.</td>
<td>medium</td>
<td>medium</td>
<td>Identification and sound analysis of underlying issues. Awareness-building of local populations on PHM. Convince local leaders/elders, work with religious organizations.</td>
</tr>
<tr>
<td>Communities show a ‘receptive behaviour’ and resist becoming more entrepreneurial (expect PHM technologies for free.</td>
<td>low</td>
<td>Medium</td>
<td>Use of participatory methods to create ownership of PHM initiative by communities linked to project implementation, monitoring and evaluation.</td>
</tr>
<tr>
<td>Local traditions deprive women of equal rights and access to resources and benefits from PHM.</td>
<td>medium</td>
<td>medium-high</td>
<td>Proactive measurements and capacity-building of men and women in gender and social equity issues. Applying WEE approach. Bring in gender and social equity in policy dialogues.</td>
</tr>
<tr>
<td><strong>Ecological/Natural Resources related:</strong></td>
<td></td>
<td></td>
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<tr>
<td>Severe/continued crop losses due to adverse climatic conditions (climate change) de-motivating farmers to increase production of grain/pulses for storage.</td>
<td>medium</td>
<td>medium – high</td>
<td>Actively promote coping and adaptation strategies for food crops production (e.g. drought tolerant varieties.</td>
</tr>
<tr>
<td>Private prospectors acquire land for production of bio-fuels and mineral extraction that impact land access and land security, with negative impact on food crops production.</td>
<td>medium</td>
<td>medium</td>
<td>Liaise/support with local actors that are active in land demarcation and mapping, access to land and land rights. Encourage communities to do land mapping and use and link it to the district land cadastre to get their land titles.</td>
</tr>
<tr>
<td><strong>Coordination:</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Coordination and multi-language communication as well as linkage with other two PHM initiatives are demanding and constitute a risk in itself.</td>
<td>low</td>
<td>medium</td>
<td>Establishment and implementation of clear coordination mechanisms; good steering and communication between all three initiatives.</td>
</tr>
</tbody>
</table>
8. Monitoring and evaluation

8.1. Monitoring and evaluation system (M&E plan)

The Monitoring and Evaluation (M&E) system of the project is designed to provide:

1. timely and useful information for decision making (steering)
2. evidence of the project effectiveness and efficiency to stakeholders (downward and upward accountability)
3. timely and useful information for sharing and learning (capitalization of experiences)

The following principles are applied in defining and implementing the M&E System:

- **Usefulness**: The M&E system provides relevant and timely information for project steering and for measuring the efficiency and effectiveness of the project.

- **Reasonable accuracy**: The M&E system strives for reasonable accuracy, within the available means and applying best judgements

- **Plausible attribution**: The project M&E system makes no attempt to establish a formal attribution of observed results and impact to project activities. Rather, it aims to establish a plausible case for attribution at a reasonable cost based on an established results chain (see below).

- **Feasibility**: The M&E system has to correspond with the size of the project and the available human and financial means. Monitoring is understood as a task of all technical project staff with the overall project responsibility lying with M&E specialists and ultimately with the responsible project managers.

- **Contribution to knowledge management**: The M&E system will generate a reasonable amount of information and useful lessons learned which can be used for learning and decision making.

A detailed results chain (Annex 2) focusing on impact logic for each outcome constitute the design for an effective M&E framework. The advantage of using this framework is twofold: firstly, it forces the project team to think through the logic of proposed interventions, including the prediction of changes at different levels and according to assumptions made (beyond logframe). Secondly, results chains lay the basis for an effective M&E system which clearly attributes changes to project interventions (plausible attribution, see above). This includes indicators with baseline values and a measurement plan, and the provision of a programme response in relation to risk assessment for identified critical factors. In addition, the information obtained from M&E will be analyzed and fed back into reporting, learning and decision making processes, with adjustments being made accordingly.

In terms of gender and social equity, the M&E framework will:

- provide gender disaggregated data for all person-related quantitative data,
- include qualitative data relevant to gender equality (such as changing roles or access to credit or extension services for men and women,
- capture women’s and as well as men’s perspectives (i.e. separate female and male respondents) in a way that reflects their role in the PHM

Given the relatively small size of the project and the intervention at different levels (validation and dissemination of PHM practices and systems, learning and sharing, capacity-building, advocacy and policy etc.) the M&E will make no attempt to fully comply with principles of Rigorous Impact Assessment, i.e. the design of the outcome monitoring of the project foresees only **pre- and post-intervention groups**. No comparison groups will be established during baseline survey but post intervention comparison groups may be defined when conducting post-intervention surveys.
8.2. Baseline

Baselines will be conducted within the first 6 months of project implementation in the two pilot countries based on the defined indicators in the logframe (outcome and outputs) clearly establishing the situation of the target group at the onset of the project (field and institutional level) producing gender disaggregated results.

8.3. Reporting System

The reporting systems comprises of the following:

- Short half-yearly and a more narrative annual report including statistical reports about activity progress, outputs and outcome indicators. The semester report is more focused on output level, whereas the annual report focuses on outcome level with a systemic analysis of the project progress.

- End-of-Phase Report (EPR): According to guidelines of SDC, a draft EPR will be produced 9 months before the end of each phase, and the final version 6 months after the end of each phase.

- Specific summary reports of conducted events, surveys and studies will be produced

- Internal (quarterly) progress reports on specific activities as defined by the consortium and partners.

8.4. Reviews and impact assessments

Half-yearly internal reviews will be executed to assess progress made in comparison with annual plan. It will provide the base for the half-yearly report and steering to adjust activities at an early stage.

An annual review will be executed using the programme monitoring instruments to assess whether (1) the outcomes are still likely to be achieved; (2) the synergies between the programme components are fully exploited; (3) all stakeholders are involved to the necessary / desirable degree; (4) the programme’s and other donors’ interventions are complementary to each other; where not, measures to rectify the situation will be identified. This review provides the basis for the annual report as well as annual work plan and budget planning and budgeting.

A Mid-term review is proposed by mid 2015, conducted either by one international consultant (either internal HELVETAS Swiss Intercooperation or external, to be defined with SDC) and one national consultant per pilot country. The findings of this internal review will provide guidance for the last two years of the first phase laying the base for scaling-up of second 2-year phase.

Outcome assessment: At the end of second phase, an external assessment is planned to assess the overall outcomes of the project over the 6 years. This assessment could be conducted either as external review or/and as a participatory impact assessment (Beneficiary Assessment). The exact modalities need to be defined with SDC.
9. Annex

Annex 1: Logframe

<table>
<thead>
<tr>
<th>Hierarchy of objectives / Intervention strategy</th>
<th>Key Indicators</th>
<th>Data Sources</th>
<th>Means of Verification</th>
<th>Assumptions &amp; Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact (Overall Goal)</strong></td>
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<tr>
<td>Food security of smallholder farmers in Sub-Saharan Africa is increased through reduced postharvest losses at farm and community level</td>
<td>IOG 1: Number of food secure months at household level (physical and economic access to quality food). IOG 2: Number of rural communities confirming reduced vulnerability to famine due to improved food security IOG 3: Livelihood/gender improvements at household level: reduced workload for women etc.</td>
<td>National statistics Case studies at household and community level (Food Consumption Scores -FCS) Specific study reports (Ministry of Agriculture etc.)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Outcomes</strong></td>
<td><strong>Impact Indicators</strong></td>
<td><strong>Means of Verification</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outcome 1:</strong> Improved handling and storage options within the grains and pulses value chains are benefitting smallholders in pilot countries.</td>
<td>IOC 1.1: Outreach (No. of households reach by the project) IOC 1.2: Increased quantity of grains/pulses stored and saved from loss through improved postharvest handling IOC 1.3: Increased household incomes from sales of stored grains/pulses</td>
<td>Project reports Household/community surveys Case studies at household and community level</td>
<td>For contributing to goal/impact: Assumptions; Stable socio-political environment in pilot countries Increasing demand for food grain &amp; pulses in SSA Renewed interest of developing partners in PHM as strategic element for food security Improved access to rural credit Policy environment supportive to issues related to food security issues including PHL reductions (a.o. trade bans, land tenure, crop choice, subsidies, etc.) Effective and efficient coordination between SDC supported PHM initiatives in SSA Risks: Severe/continued crop losses due to adverse climatic conditions (climate change) de-motivating farmers to increase production of grain/pulses for storage. Unforeseen price fluctuations of grain/pulses commodities</td>
<td></td>
</tr>
<tr>
<td><strong>Outcome 2:</strong> Good practice options for reducing post harvest losses are compiled, disseminated and scaled up and out.</td>
<td>IOC 2.1: Evidence that good practice options for reducing postharvest losses are used by stakeholders not directly involved in the project implementation (policy makers, senior technical staff, rural advisors, NGOs, private sector, CSO) IOC 2.2: Increased personal and institutional capacities on PHM among policy makers, senior technical staff and rural advisors (in pilot countries and regionally)</td>
<td>Survey among COP members and other actors in pilot countries Survey among relevant key persons and institutions who received capacity-building / training</td>
<td></td>
<td></td>
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<tr>
<td><strong>Outcome 3:</strong> Appropriate regulatory frameworks (policies, standards, norms, protocols) on reducing postharvest losses in food supply chains are introduced and implemented at national and regional levels and financing is secured.</td>
<td>IOC 3.1: National / regional regulatory frameworks (policies, standards, norms, protocols) that are conducive for reducing postharvest losses are tabled for implementation. IOC 3.2: Increased level of investments in PHM in pilot countries (by gov., donors, private sector) IOC 3.3: Households and other food corps value chain actors are aware of regulatory frameworks (policies, standards, norms) for grains and pulses storage and commercialization.</td>
<td>Project reports, Published policy briefs, Newspaper/website etc. articles, Survey of households and other VC actors Proven cases of investments in PHM (survey)</td>
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</table>
### Outputs (per outcome) and costs

#### Output Indicators

<table>
<thead>
<tr>
<th>For outcome 1:</th>
<th>Data sources / means of verification</th>
<th>Assumptions &amp; Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>For reaching the outcomes:</td>
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</tbody>
</table>
| **Output 1.1:** Major constraints related to markets and community & household storage strategies in relevant / selected food crops value chains have been analysed | • Surveys  
• Specific studies | ✓ Basic (market) information available  
✓ Targeted survey respondents (farmers, other value chain actors…) share information and experiences |
| **Output 1.2:** Promising PHM practices and systems have been identified, validated and further developed | • Compilation of practices and systems  
• Loss assessments  
• C/B analyses  
• Training materials | ✓ Existence of a minimum pool of PHM practices and systems  
✓ Identified PHM practices and systems demonstrate significant PHL reduction levels.  
➢ Unfavorable C/B ratios |
| **Output 1.3:** PHM practices and systems have been disseminated and adopted | • Adoption studies in pilot countries  
• Minutes of training events | ✓ Socio-cultural and religious barriers in relation to new PHM practices can be overcome  
➢ Economic situation of households a hindering factor for adoption of new PHM practices  
➢ Limited improvement of transport and market infrastructures |

#### For outcome 2:

<table>
<thead>
<tr>
<th></th>
<th>Data sources / means of verification</th>
<th>Assumptions &amp; Risks</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
| **Output 2.1:** Good PHM practices and systems have been documented and used in networks | • Publications of good practices (Capitalization)  
• Follow-up survey on networks including CoP’s (FAO, others) | ✓ Interest of networks in PHM issues  
✓ Thriving CoP’s  
✓ Availability of appropriate practices relevant to PHM |
| **Output 2.2:** Innovative RAS, suitable for effective dissemination and scaling-up of PHM practices have been identified and (further) developed | • Minutes of events  
• Assessments of RAS systems for PHM  
• Guidelines on RAS for PHM | ✓ AFAAS country fora performing and taking up PHM issue in RAS longer-term interest of RAS actors for PHM |
| **Output 2.3:** Relevant actors (RAS agents, farmer org. private sector, gov. officials and policy makers) have been capacitated on PHM practices and systems | • Reports of training events  
• List of participating persons / organizations trained. | ✓ Interest of actors in participating and capacity-building  
➢ Actors not applying content of capacity-building |
<table>
<thead>
<tr>
<th>Outputs (per outcome) and costs</th>
<th>Output Indicators</th>
<th>Data sources / means of verification</th>
<th>Assumptions &amp; Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For outcome 3:</strong></td>
<td></td>
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</tbody>
</table>
| **Output 3.1:** Relevant policy briefs related to PHM have been elaborated and made available | IOP 3.1.1: Number of policy briefs related to PHM produced  
IOP 3.1.2: Policy briefs disseminated (how/where) | • Published policy briefs  
• Survey | ✓ Effective ways for disseminating policy briefs identified/available  
➢ |
| **Output 3.2:** PHM has been included in the agendas of local, national and regional policy dialogue platforms | IOP 3.2.1: Number of policy dialogue events at national and regional level tackling PHM issues  
IOP 3.2.2: Evidence of increased awareness of PHM related issues among different actors (specify: farmer org., policy makers, senior gov. officials, etc.) | • Minutes of events  
• Survey among participants  
• Media screening | ✓ Basic interest of actors to address PHM issues at policy level  
➢ |
| **Output 3.3:** Frameworks for food standards and norms have integrated PHM aspects | IOP 3.3.1: PHM policy issues tabled for inclusion in regulatory frameworks (e.g. use of pesticides for seed treatment, seed quality etc.) at national level (pilot countries)  
IOP 3.3.2: PHM policy issues tabled for inclusion in regulatory frameworks (specify type of PHM issues and frameworks) at regional level (REC's etc.) (?) | • Analysis of frameworks in pilot countries  
• Analysis of frameworks at regional levels | ✓ Relevant PHM issues identified to be incorporated in frameworks  
➢ Long processes, conflicting interests, political interference |
**Activities (per output)**

**List of activities for output 1.1: Major constraints related to markets and community & household storage strategies in relevant / selected food crops value chains have been analysed**

1.1.1. Confirm (based on conducted scoping studies) selection of key geographic intervention areas in pilot countries (criteria: poverty and food security situation) and compile key characteristics for selected areas.

1.1.2. Establish map of actors active or relevant for engagement in PHM related issues in selected intervention areas and at national level. ==> build on scoping studies and further complement in baseline study

1.1.3. Identify/confirm key food crops (grain/pulses) value chains in selected intervention areas. ==> build on scoping studies.

1.1.4. Conduct analysis of markets and community & household storage strategies for prioritized food crops (M4P approach) ==> build on scoping studies

1.1.5. Design specific intervention strategies for selected food crops value chains with focus on PHM related issues (M4P approach).

1.1.6. Identify local and national market information systems for selected food crops (grains and pulses)

**List of activities for output 1.2: Promising PHM practices and systems have been identified, validated and further developed**

1.2.1. Select 3-4 promising PHM technologies (traditional / new) per intervention area based on scoping studies and existing studies and literature

1.2.2. Conduct assessment of selected PHM technologies and schemes for the selected key crops (existing studies, complete with own studies if necessary) with regard to
   - PHL reduction potential (%,$)
   - Cost/benefit analysis, return on investment etc.
   - Socio-economic, cultural and ecological appropriateness

1.2.3. Validate local input supply chains for the selected 3-4 PHM practices (availability of material, know-how, producers, costs)

1.2.4. Realize participative evaluation of innovative PHM techniques in selected households / communities, testing their technical, economic and social feasibility

1.2.5. Identify research needs and liaise with relevant research institutions

1.2.6. Identify needs for capacity-building related to PHM at farm and community level

1.2.7. Elaborate material for awareness-creation and training of farmers and communities on PHM

**List of activities for output 1.3: PHM practises and systems have been disseminated and adopted**

1.3.1. Support organization of awareness campaigns for PHM at level of value chain and other actors (farmer groups, communities, private sector, government, etc.)

1.3.2. Disseminate selected PHM practices and systems in intervention areas through use of appropriate/innovative RAS methods and approaches

1.3.3. Conduct capacity-building of farmers and other users of PHM technologies in the intervention zones in use of PHM practices and systems

1.3.4. Organize field visits/learning events for farmers, local authorities, researchers, partner organizations etc.

1.3.5. Monitor use of PHM practices and systems

1.3.6. Conduct adoption study (after two crop/storage cycles)

**List of activities for output 2.1: Good PHM practices and systems have been documented and used in networks**
## 2.1. Compile and document ("capitalize") learning and good practices of technologies, practices and market systems related to PHM for dry grains in promotion materials (flyers, booklets, guides, synthesis papers, etc.)

- **2.1.1.** Compile and document learning and good practices of technologies, practices and market systems related to PHM for dry grains in promotion materials (flyers, booklets, guides, synthesis papers, etc.).
- **2.1.2.** Disseminate good practices in local and regional networks, events etc.
- **2.1.3.** Contribute to and bring in learning on good practices in the new Community of Practice on PHM (FAO/IFAD/WFP)
- **2.1.4.** Use new online platform of AFAAS for dissemination and contribute to its further development

### List of activities for output 2.2: Innovative RAS, suitable for effective dissemination and scaling-up of PHM practices have been identified and (further) developed

- **2.2.1.** Conduct a survey within AFAAS community regarding experiences of RAS and PHM
- **2.2.2.** Screen, compile and analyze current RAS systems, methods and tools with regard to constraints and opportunities for PHM (moderated national and regional workshops with key stakeholders/experts, analysis of existing literature, tools etc.)
- **2.2.3.** Elaborate RAS tools and packages to be used by different RAS actors
- **2.2.4.** Identify possible embedded services, e.g. for dissemination / advice of PHM, input supply (private sector, processors etc.)
- **2.2.5.** Identify suitable media for dissemination and scaling-up (TV, SMS, radio, brochures of service providers, theatre, etc.)

### List of activities for output 2.3: Relevant actors (RAS agents, farmer org. private sector, government officials and policy makers) have been capacitated on PHM practices and systems

- **2.3.1.** Elaborate training modules & sensitizing materials for different target groups (POs, RAS professionals, authorities, private sector, media, research people)
- **2.3.2.** Conduct and facilitate trainings for RAS / extension professionals, ToT (e.g. CeRPA in Benin), NGO’s, authorities, farmers’ organizations, etc. active in the topic of PHM at the national and regional level.
- **2.3.3.** Promote / bring in learning and experience on PHM actively at national and regional events through participation of own staff and key stakeholders (e.g. AFAAS extension week, GFRAS events, FANRPAN annual regional dialogue, national workshops for public extension etc.)
- **2.3.4.** Use existing online platforms for exchange and learning (e.g. AFAAS new online platform for dissemination, CoPs)
- **2.3.5.** Monitoring and conducting survey to evaluate use of trainings

### List of activities for output 3.1: Relevant policy briefs related to PHM have been elaborated and made available

- **3.1.1.** Evaluate status of PHM policies in the two focal countries
- **3.1.2.** Facilitate production/development of policy briefs and advisory notes on PHM
- **3.1.3.** Prepare and publish/disseminate policy briefs/advisory notes (events, workshops website, social media, etc.)
- **3.1.4.** Monitor use of disseminated policy briefs/advisory notes

### List of activities for output 3.2: PHM has been included in the agendas of local, national and regional policy dialogue platforms

- **3.2.1.** Evaluate the agenda of local, national and regional governments and platforms with regard to PHM
- **3.2.2.** Establish/update a database of PHM related policy messages at national and regional level
- **3.2.3.** Facilitate policy dialogue and consultations at local level
- **3.2.4.** Convene regional and national multi-stakeholder policy dialogues on PHM
- **3.2.5.** Identify and support participation of PHM policy champions in national, regional or international meetings
- **3.2.6.** Actively participate in strategic national and regional events
- **3.2.7.** Support governments of focal countries with PHM policy review, drafting and presentation of public/stakeholder
<table>
<thead>
<tr>
<th>3.2.8.</th>
<th>Link and contribute to the FAO/IFAD/WFP Community of Practice</th>
</tr>
</thead>
</table>

**List of activities for output 3.3: Frameworks for food standards and norms have integrated PHM aspects**

| 3.3.1. | Facilitate analysis of existing frameworks for food standards and norms in pilot countries and identify gaps related to PHM |
| 3.3.2. | Develop proposal for inclusion of PHM in existing policy frameworks |
| 3.3.3. | Advocacy to foster inclusion of PHM issues in frameworks and to secure financing |
| 3.3.4. | Monitor progress of updating frameworks and levels of investment in PHM at national and regional level |
Annex 2: Results Chain
Annex 3: Detailed Budget

> See Excel budget file
Annex 4: Socio-economic, political and environmental context in Benin

Socio-economic context

With a value of 0.427 in the Human Development Index (HDI), Benin is ranked at 167 out of 187 countries and remains a fragile country that is dependent on external support. The HDI of Sub-Saharan Africa as a region increased from 0.365 in 1980 to 0.463 today, placing Benin below the regional average. In 2012 the percentage of people living in absolute poverty was estimated at 37.4%. With this, Benin is one of the poorest countries in the world with an annual per capita income of 700 US$ (2008). According to official data, the index of rural poverty rose from 25.2% in 1990 to 33% in 1999-2000 (The index of urban poverty decreased during this same period from 28.5% to 23.3%), and further increased to 35.2% in 2009. Poverty therefore remains much a rural phenomenon in Benin, in an economic context mainly characterized by the predominance of the agricultural sector.

Agriculture is the main source of income for 70% of the population. Cotton, palm oil and cashew are the most important export products. In Northern departments, cotton production alone represents roughly 70% of revenues of the population. Whereas the South of the countries experiences some development due to the proximity to the capital and the port, most families in the remote areas of the North of the country remain deprived from basic services and access to markets.

Environmental context

Climate change poses major environmental challenges to Benin in terms of attaining a sustainable development path and sustainable management of forests. Climate change induced degradation of pastures due to the strengthening of traditional factors such as changes in land use, excessive harvesting of the pasture. With regard to fishing, given the increase in global temperature of the oceans worldwide, marine and inland fisheries will decrease with a stronger advance of the sea in the south of the country.

In addition analysis of the situation of the environment sector revealed that in Benin, the majority of households using wood (80.3%) and charcoal (13.4%) as an energy resource. This inevitably leads to a strong deforestation. In addition, reforestation is not keeping pace with current levy and if this trend continues, Benin is far from reaching the target 7 of the MDGs by 2015. According to the document of national action program against desertification, 86.22% of arable land is degraded.

Political and social context

Since 1990, the Republic of Benin has established a multiparty democracy in which the multi-party system continues to assert itself. The institutions of the Republic are all installed and functioning normally, each playing the role under the Constitution of 11th December 1990. Elections are held regularly and the transfer of power is normally done since the first presidential and legislative elections of 1991. Political stability has heavily favored the stabilization of economic equilibrium and economic growth during the past decade. It should however be noted that Benin, like many countries in the region, is facing many serious problems of governance and corruption. The most significant draw back concerns the areas of freedom of the press, making a reliable electoral list, the administration of justice. Strong social stir often tried social sectors such as education and health with corporate even political claims which management not often leads lasting solutions. The question of revision of the constitution remains one of the sensitive issues that may shake the political class in the coming days.

As the health and education are concerned, the profile of the country is well aligned with his statute of poverty. The illiteracy rate among people aged 15 years and over, remains high. It is estimated at 39.4% in 2007. Nursery education meanwhile suffers from problems of access and quality. The

13 UNICEF, 2009 : L’Analyse Globale de la Vulnérabilité dela Sécurité Alimentaire et de la Nutrition (AGVSAN)
Gross Preschool Enrollment is estimated at 4% in the same year. In addition, the attendance of health services was 45.6% in 2007 against 43.9% in 2006. Life expectancy at birth (2010) was estimated at 64.5 years for women and 62 years for men, whereas the infant mortality rate was at 7.7%\textsuperscript{14}, and in 2008, 45% of children were stunted whereas 12% of overall population suffered undernourishment\textsuperscript{15}.

Regarding primary education, there is a slight increase in the primary school gross enrollment rate (GER) during the last three years. Thus, the GER rose from 98.48% in 2007 to 104.27% in 2008. It was 96% in 2006. In terms of parity, the GER for girls has improved from 81.6% in 2007 to 83.5% in 2008.

\textsuperscript{14} World Bank, 2012:

\textsuperscript{15} FAO, 2012: Country Profile – Food Security Indicators
Annex 5: Socio-economic, political and environmental context in Mozambique

Socio-economic context
Mozambique is ranked 184th out of 187 countries in the 2011 Human Development Report. In rural areas of both provinces Nampula and Cabo Delgado, 70% of the population lives below the national poverty line (<1.25 USD per day) which represents the target group of HELVETAS Swiss Intercooperation. For the major part of the population, economic growth has not yet led to sufficient reductions in poverty and increased food security. Although agriculture contributes only 23% to the Gross Domestic Product (GDP) and represents just 20% of total exports, it is the main source of income for more than 70% of the population. It provides employment for 80% of the total workforce and generates 80% of the income of rural households with only 10% of arable land under cultivation. The sector grew on average by 7.9% annually between 2003 and 2008, whereas growth was mainly linked to expansion of the cultivated area and to favourable rainfall. However, yields stagnated at levels between 30% and 60% of their potential.

With regard to the project area, Nampula has a population of almost 4 million with 21 districts and 6 municipalities, and is the most densely populated province of Mozambique. In 2007, the poverty rate in Nampula was estimated at 53.6%, which was the same as for 2003/2004. Cabo Delgado has a population of 1.6 million with 17 districts and 3 municipalities. The province is rich in minerals such as marmor and graphite, and precious stones. Gas has been found recently and its exploration is now being out-rolled at a large scale. Most recent figures indicate a drastic reduction in poverty from 63.2% in 2002/2003 to 37.9% in 2008/2009. However this value is based on GDP and does not take into account inequality of distribution. The majority of the population is still agrarian where no major changes can be seen in terms of productivity, leaving the rural population impoverished.

Environmental context
Climate change poses major environmental challenges to Mozambique in terms of attaining a sustainable development path. The World Bank (WB) report indicates that the impact of climate change over the next 40 years would lead to a 2-4% decrease in yields of the major crops, and modest reduction in energy supply, in the range of 1.4%. Severe rainfall may result in losses in the inventory of roads, culverts and bridges, in a range of 2-12%. Mozambique could also lose up to 4,850 square kilometres of land and a cumulative total of 916,000 people could be forced to migrate away from the coast. The main concern for arid and semi-arid regions will be rising temperatures plus reduced rainfall.

Political and social context
The overall political environment in Mozambique is considered as stable with three multiparty general elections held since the Peace Agreement in 1992. However, the most recent elections in October 2009, won by the ruling party, Frente de Libertação de Moçambique (FRELIMO), were held amid allegations of political exclusion. The constitution and electoral laws are currently being reviewed to ensure greater transparency and political inclusiveness. These efforts are being closely monitored by the donor community and civil society. The next national, provincial and presidential elections are due in 2014.

In terms of governance, the Government of Mozambique (GoM) remains committed to an ambitious reform agenda. However, corruption remains rampant in the system, due to weaknesses in internal control systems, slow pace of justice system reforms as well as the prevailing state-party conflict of interest, which results in inefficiency in the use of public resources. Civil society and citizenry ability to participate in governance and development processes remains hampered by several internal and external factors. Mozambican civil society is weakly structured and valued, and operates in a constrained environment. Structurally, the main weaknesses are due to limited human and financial resources available to Civil Society Organisations (CSO). In terms of values, the weaknesses relate to internal governance, social equity and diversity.

\[16\] PARP page 15

\[17\] World Bank, 2010, Mozambique: Economics of Adaptation to Climate Change.
Annex 6: Terms of Reference (TOR) for key personnel

1. **Programme coordination, management and backstopping at international level (Part 1)**

1.1. **General programme coordination and management**

**Tasks**
- General management and supervision of project cycle management at Head Office level
- Support programme in development of selected operational and strategic tasks ("moment forts")
- Coordinate and manage flow of information within the consortium HSI-FANRPAN and with partners AFAAS and AGRIDEA
- Coordinate and link programme with other two GPFS SSA postharvest initiatives (FAO/IFAD/WFP and FAO-SDAC Ethiopia). In particular, coordinate and link project with CoP facilitated by FAO.
- Undertake support and supervision missions to pilot countries
- Support coordination and participate in national, regional and international events of the project and/or others where appropriate
- Prepare and participate in Programme Steering Committee (PSC) in the function of secretary
- Facilitate communication and negotiations with SDC in Switzerland

**Qualifications**
- Postgraduate in agronomy, agro-economics or related fields
- At least 10 years experience in the field of rural development and international cooperation
- Good knowledge of development issues, particularly in Sub-Sahara Africa
- Sound knowledge of issues related to agriculture and food security
- Proven skills in networking and communication
- Practical experience with SDC policies, strategies, and procedures
- Strong experience in project cycle management

Proposed staff: Raphael Dischl, Advisor Sustainable Agriculture, Rural Economy Team, HELVETAS Swiss Intercooperation, Zurich, Switzerland

1.2. **Backstopping Postharvest management**

**Tasks**
- Facilitate transfer of know-how from international experiences in relation to Postharvest Management (PHM)
- Provide inputs and support programme coordinator on thematic issues related to PHM (and particularly on outcome 1)
- Contribute to competence building of programme team in relation to PHM
- Undertake support missions to pilot countries
- Support organization and participate in national, regional and international events of the project and/or others where appropriate
- Support programme coordinator in PCM, particularly on M&E
- Participate (on request) in PSC as resource person

**Qualifications**
- Postgraduate in agronomy, agro-economics or related fields
- At least 15 years experience in the field of development and international cooperation
- Sound knowledge of issues related to agriculture and food security in Sub-Sahara Africa
- Confirmed experience in post-harvest management
- Good knowledge of M4P approach
- Strong experience in project cycle management, particularly on M&E

Proposed staff: Martin Fischler, Programme Coordinator East Africa / Senior advisor sustainable agriculture & extension, HELVETAS Swiss Intercooperation, Bern, Switzerland.
1.3. **Coordination FANRPAN**

**Tasks**
- Coordinate activities of the programme with programme coordinator from HSI and partners AFAAS/Agridea and in close collaboration with FANRPAN country policy nodes.
- Lead coordination of activities of outcome 3 (Policy & advocacy, regulatory frameworks)
- Facilitate production and dissemination of PHM relevant policy briefs/advisory notes
- Support coordination of local and national multi-stakeholder policy dialogues
- Coordinate convening of regional policy events related to PHM and link with regional frameworks and processes (NEPAD/CAADP, RECs, Regional Farmer Umbrella Associations, etc.)
- Support organization and participate in national, regional and international events related to policy dialogue on PHM issues and/or others where appropriate
- Contribute to regional (SSA) networking
- Facilitate contribution to CoP (managed by FAO) of relevant policy issues on PHM
- Support partners in and contribute to project M&E

**Qualifications**
- Postgraduate in development, socio-economics or related fields
- At least 10 years experience in field of international cooperation
- Sound knowledge development context in Sub-Saharan Africa
- Good knowledge of regional processes and frameworks (CAADP, RECs)
- Proven skills in networking and communication at national and regional (SSA) level
- Strong experience in project cycle management

Proposed staff: Bellah Mpofu, Programme Manager, FANRPAN, Pretoria, South Africa

1.4. **Backstopping policy support FANRPAN**

**Tasks**
- Conduit/contribute to policy analysis in relation to food security and PHM
- Contribute to elaboration of policy briefs advisory notes
- Conceptually support organization of multi-stakeholder policy dialogues
- Support governments with PHM policy review, drafting and presentation of public/stakeholder presentation

**Qualifications**
- Postgraduate in development studies or related field
- Good knowledge of national and regional policies related to agriculture and food security
- Proven capacity to conduct policy research and analysis
- Excellent writing skills at level of policy briefs
- Good networking and communication skills

Proposed staff: Hlamalani Judith Ngwenya, Knowledge Management, FANRPAN, Pretoria, South Africa

1.5. **Coordination AFAAS**

**Tasks**
- Coordinate activities of the programme with programme coordinator HSI and coordinator FANRPAN.
- Lead coordination of activities of outcome 2 (Good practice options/innovative RAS) in close collaboration with AFAAS country fora
- Closely work with Agridea in planning strategies for implementation of outcome 2
- Administrate all project activities implemented by AFAAS and country fora
- Facilitate and contribute to identification and dissemination of innovative RAS for PHM at national and regional level
- Contribute to elaboration of RAS tools and packages
- Contribute to capacity-building on RAS for PHM
- Support organization and participate in regional and international events related to RAS for PHM and/or others where appropriate
- Contribute to further development and use of AFAAS platform for exchange and learning on PHM
- Facilitate contribution to CoP (managed by FAO) of good practice options and RAS for PHM
- Regularly update AFAAS and RAS community on PHM project activities and share lessons in relevant platforms
- Contribute to project M&E on outputs related to outcome 2

Qualifications
- Postgraduate in rural development / extension with sound background in agricultural science / agronomy
- At least 10 years of experience in the field of development and international cooperation
- Good knowledge of regional processes and frameworks (CAADP, SROs)
- Good knowledge of issues related to agriculture and food security in Sub-Sahara Africa
- Sound knowledge and experiences related to agricultural extension/RAS
- Good networking and communication skills
- Experience in project cycle management

Proposed staff: Max Olupot, AFAAS Secretariat, Kampala, Uganda.

1.6. Backstopping RAS AGRIDEA

Tasks
- Support AFAAS in establishing functioning country fora (with particular emphasis on Benin and Mozambique) in-charge to implement foreseen activities of AFAAS in the two countries
- Provide conceptual and methodological advice on identification and dissemination of innovative RAS for PHM
- Facilitate the identification of good practice options, support the capitalization of experiences related to RAS for PHM methodologically
- Contribute to capacity-building on RAS for PHM
- Support organization and participate in regional and international events related to RAS for PHM and/or others where appropriate, including GFRAS
- Facilitate contribution to CoP (managed by FAO) of good practice options and RAS for PHM
- Support partners in and contribute to project M&E, in particular related to outcome 2

Qualifications
- Postgraduate in agronomy, economics or related fields
- At least 15 years of experience in the field of development and international cooperation
- Sound knowledge and international experiences related to agricultural extension/RAS and food security
- Good networking and communication skills
- Experience in project cycle management

Proposed staff: Jürgen Roth, Team International Cooperation, AGRIDEA, Eschikon/Lindau, Switzerland

1.7. M4P / supply chain analysis

Tasks
- Support country project teams to conduct analysis of market/community household storage strategies for prioritized food crops value chains applying M4P approach
- Support country project teams to design intervention strategies related to selected food crops value chains with focus on postharvest management related issues (M4P approach) and on RAS-M4P
- Contribute to analysis of RAS systems and tools (M4P lens) with regard to postharvest management in national (ev. one regional?) workshops with key stakeholders
- Contribute to capacity development of partners organisations and concerned stakeholders in the field of market development / M4P
- Contribute to analyse and assess market development strategies adopted by the programme

Qualifications
- Postgraduate in agro-economics, private sector development or related field
- At least 7 years experience in the field of development and international cooperation
- Good understanding of development issues in the field of private sector/market development
- Strong analytical and technical skills and practical experience in the field of market development applying M4P approach

Proposed staff: Isabelle Dauner, Co-Team Leader, Rural Economy Team, HELVETAS Swiss Intercooperation, Bern Switzerland

1.8. Accounting and controlling – Head Office level

Tasks
- Accounting and controlling at Head Office level
- Invoice of HELVETAS Swiss Intercooperation fees to SDC Financial and budget controlling of documents prepared by the Country Offices and partners concerning the project
- Follow-up of fund request by Country Offices and partners
- Monitoring of fees accounted by Country Offices and partners

Qualification:
- Masters degree in Chartered Accountancy Articleship
- At least 10 years of experience in financial management of large funds, including controlling, consolidation
- Confirmed experience with SDC and HELVETAS Swiss Intercooperation administrative and financial procedures
- Capacity of coaching and steer finances and administration managers

Proposed staff: Sreeram Koottala, Coordinator - International Accounting Team, HELVETAS Swiss Intercooperation; financial controllers at FANRPAN and AFAAS head offices.

2. Programme Supervision in pilot countries (part 2)

2.1. Backstopping / management

Tasks
- Overall supervision of project and responsibility for financial and administrative issues in the pilot country
- Support focal point in operational matters, such as coordination, planning, budgeting, and reporting
- Support focal point in networking with other donors, government, authorities, and other initiatives
- Facilitate with other donors’ initiatives and organisations on PHM, regarding networking, and funding

Qualifications
- Postgraduate in agronomy or related fields
- At least 15 years experience in the field of development and international cooperation
- Comprehensive understanding of development issues in the country
- Good knowledge of SDC policies, strategies, and procedures
- Practical experience with project cycle management, M&E, gender and social equity

Proposed staff: Daniel Valenghi and Pierluigi Agnelli, Country Directors of HELVETAS Swiss Intercooperation in Benin and Mozambique, respectively.

3. Programme implementation in pilot countries (part 3a)

3.1. Focal person HELVETAS Swiss Intercooperation

Tasks
- Coordinate activities in pilot country in close collaboration with FANRPAN policy node, AFAAS country fora and other relevant stakeholders (a coordination committee is established in the pilot countries)
- Lead the validation and dissemination of PHM practices and systems in pilot countries
• Contribute to and participate in activities related to awareness/capacity-building and policy
dialogue on PHM
• Contribute to networking and learning on PHM related issues
• Ensure communication with general coordinator, country director HSI and SDC coordination
  office
• Conduct M&E and reporting

Qualifications
• Graduate in agronomy / economics or related field
• At least 10 years of experience in the field of rural development and international cooperation
• Good knowledge of issues related to agriculture, food security and postharvest management
  in the pilot country
• Good networking and communication skills
• Experience in project cycle management including financial management

Proposed staff: Evelyne Sissinto, Coordinator Rural Economy, Cotonou, Benin; Casimiro Alves,
Deputy Regional Coordinator/Project Manager SAAN, Pemba, Mozambique

3.2. Field coordinator HELVETAS Swiss Intercooperation

Tasks
• Coordinate and conduct field activities related to validation and dissemination of PHM
  practices
• Coordinate and support studies undertaken in intervention area
• Support M&E and compile data/reports for focal person

Qualifications
• Technical degree in agriculture domain
• Good understanding of rural development issues
• Sound experiences in implementing field activities related to agriculture
• Good knowledge of postharvest related issues

Proposed staff: Lionnel Chabi China, in Natitingou, Benin; vacant, Mozambique

3.3. AFAAS country fora (RAS)

Tasks
• Contribute to identification of innovative RAS for successful dissemination of PHM practices
  and system
• Contribute to elaboration of RAS tools and packages to be used by different actors
• Organize and contribute to capacity-building of relevant actors on RAS for dissemination of
  PHM practices.
• Support organization and participate in national events related to RAS for PHM and/or others
  where appropriate
• Contribute to further development and use of AFAAS platform for exchange and learning on
  PHM
• Contribute to project M&E, including reporting (physical and financial) to AFAAS Secretariat on
  outputs related to outcome 2
• Work closely with HSI focal person in the country in implementing the project
• Link the project to other similar initiatives/ events for lesson learning

Qualifications
• Postgraduate or Master degree in Agriculture, Agricultural Extension / Rural Development or
  related fields
• At least 10 years of experience in the field of development and international cooperation
• Good knowledge of issues related to agriculture and food security in pilot country
• Sound knowledge and experiences related to agricultural extension/RAS
• Good networking and communication skills
• Experience in project cycle management

Proposed staff: Simplice Vodouhe, University de Cotonou, Benin; Albertina Alage; Ministry of
Agriculture (MINAG), Maputo, Mozambique (to be re-confirmed).
3.4. FANRPAN policy node

Tasks
- Convene local and national policy dialogues to define policy agenda, undertake policy research and conduct policy advocacy related to food security and PHM.
- Contribute to networking and learning on PHM related issues
- Ensure communication with coordinator FANRPAN and focal person HSI
- Conduct M&E and reporting

Qualifications
- Postgraduate in economics/ marketing
- Sound understanding of national policy context related to agriculture, food security and PHM related issues
- Proven experience to organize and facilitate local and national policy dialogue event

Proposed staff: Bruno de Arauo & Joao Mutondo, University Eduardo Mondlane (UEM), Maputo, Mozambique; vacant, Benin.
Annex 7: Postharvest management in Sub-Saharan Africa – intervention strategy SDC (source: entry proposal SDC)

**Global**
- PHL in global policies/agreements/conventions (FAO/IFAD/WFP)

**Regional**
- Policy dialogue and formulation of norms/standards at regional and continental level (AU, CAADP) (HSI/Fanrpan/AFAAS/Agridea – FAO/IFAD/WFP)
- **Knowledge sharing** (FAO/IFAD/WFP HIS/Fanrpan/AFAAS/Agridea)
- **K sharing** (scaling up and replication of techniques and practices) & capacity development (all)

**National**
- Southern Africa: Tanzania, Zimbabwe, Kenya, Malawi, Zambia
- (SDC Regional Cooperation)
- **Policy dialogue, Cap. Dev. Innovations** -pilot countries- (Helvetas & partners)
- **Policy dialogue, Cap. Dev. Innovations** -Ethiopia- (FAO Ethiopia)
- **Policy dialogue, Cap. Dev. Innovations** -pilot countries- (FAO/IFAD/WFP)

**Network A&FS, Postharvest group**
- Other country-level experiences in SSA
- GDPRD, GFRAS Access Agriculture
- AUC-FAO Post harvest in Africa

**Capitalisation on and valorisation of previous experiences**
Annex 8: Possible partners/networks to establish linkages for advocacy work on PHM

<table>
<thead>
<tr>
<th>Possible Partner/Network</th>
<th>Activities</th>
<th>Why link with: Strengths and Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Maize and Wheat Improvement Centre (CIMMYT)</td>
<td>scale-out and advocate potential of technology to other areas and countries</td>
<td>Will provide evidence for policy advocacy. CIMMYT is assessing the potential for the implementation of the metal silo approach within the ESA maize belt (Ethiopia, Kenya, Malawi, Mozambique, Tanzania, Zambia, Zimbabwe): <a href="http://www.cimmyt.org/en/projects/effective-grain-storage-project/about-the-project">http://www.cimmyt.org/en/projects/effective-grain-storage-project/about-the-project</a></td>
</tr>
<tr>
<td>Technical Centre for Agricultural Co-operation (CTA)</td>
<td>Advocacy publications and social media; CTA also funds FANRPAN regional dialogues</td>
<td>FANRPAN submitted a concept note proposing a project to advocate for PHL issues. CTA Competencies are: (i) strengthening ACP agricultural and rural development policy processes and strategies; (ii) enhancing priority agricultural value chains; and (iii) enhancing ACP capacities in information, communication and knowledge management (ICKM) for agricultural and rural development.</td>
</tr>
<tr>
<td>Bill and Melinda Gates Foundation</td>
<td>Community Theatre for Policy Advocacy; the pilot in Mozambique was funded by the BMG foundation</td>
<td>The foundation has Global Policy &amp; Advocacy Program which fund similar and related projects. <a href="http://www.fanrpnan.org/themes/eachproject/?project=1">http://www.fanrpnan.org/themes/eachproject/?project=1</a></td>
</tr>
<tr>
<td>International Institute of Tropical Agriculture (IITA)</td>
<td>Will provide evidence, through credible research, that will be used for policy advocacy</td>
<td>It is conducting PHL research to solutions for hunger, malnutrition, and poverty. Links with Benin office already exists.</td>
</tr>
</tbody>
</table>
| New Partnership for Africa's Development (NEPAD)                                        | Advocacy platform                                                                                                                           | • NEPAD is implementing CAADP programme  
• NEPAD host CAADP Partnership Platforms and meetings  
This is in an effort to increase investment into Agriculture by African government                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Regional research networks: ASARECA, CCARDESA and FARA                                 | Provision of evidence for PHL policy advocacy                                                                                                 | • They bring together research organization in the region.  
• They can send PHL research related messages as a collective of individual research institutions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| RECs (COMESA, ECOWAS, SADC, EAC, etc)                                                   | They are clients of policy advocacy messages                                                                                                  | • Group together individual countries in sub-regions for the purposes of achieving greater economic integration.  
• They also provide advocacy platforms through various summits and other meetings which FANRPAN is invited.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Regional Farmer Organizations (SACAU, EAFF, ROPPA and PROPAC)                           | • Advocated policies would be based on their need  
• They are the ones to benefit from conducive policy environment and increased investments                                                   | • Enhance cooperation among rural producers improves their access to finance, technology, land and water, and to local, national and international markets.  
• Allows for economies of scale and stronger bargaining power in value chains.  
• Increases their capacity to manage resources and to collectively influence policy and development programmes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
## Annex 9: Timeline of activities

### Timeline of activities

**Post Harvest Management in SSA - Phase I (2013-2017)**

<table>
<thead>
<tr>
<th>Outcome 1</th>
<th>Lead / Contributing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output 1.1</strong> Major constraints related to markets + community &amp; household storage strategies in relevant/selected food crops value chains have been analysed</td>
<td></td>
</tr>
<tr>
<td>1.1.1. Confirm selection of key geographic intervention areas in pilot countries / compile key characteristics</td>
<td>HSI</td>
</tr>
<tr>
<td>1.1.2. Establish map of actors active or relevant in PHM related issues in intervention areas / at national level.</td>
<td>HSI, All</td>
</tr>
<tr>
<td>1.1.3. Identify/confirm key food crops (grain/pulses) value chains in selected intervention areas.</td>
<td>HSI</td>
</tr>
<tr>
<td>1.1.4. Conduct analysis of markets/community &amp; household storage strategies for prioritized crops (M4P approach)</td>
<td>HSI</td>
</tr>
<tr>
<td>1.1.5. Design intervention strategies for selected food crops VC with focus on PHM related issues (M4P approach).</td>
<td>HSI, All</td>
</tr>
<tr>
<td>1.1.6. Identify local and national market information systems for selected crops (grains and pulses)</td>
<td>HSI</td>
</tr>
<tr>
<td><strong>Output 1.2</strong> Promising PHM practices and systems have been identified, validated and further developed</td>
<td></td>
</tr>
<tr>
<td>1.2.1. Select 3-4 promising PHM technologies (traditional / new) per intervention area based on scoping studies and</td>
<td>HSI</td>
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<tr>
<td>1.2.2. Conduct assessment of selected PHM technologies and schemes for the selected key crops</td>
<td>HSI</td>
</tr>
<tr>
<td>1.2.3. Validate local input supply chains for selected PHM technologies (material, know-how, producers, costs)</td>
<td>HSI</td>
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<tr>
<td>1.2.4. Realize participative evaluation of innovative PHM techniques in selected households / communities</td>
<td>HSI/AFAAS/Agridea</td>
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<tr>
<td>1.2.5. Identify research needs and liaise with relevant research institutions</td>
<td>HSI/AFAAS/Agridea</td>
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<tr>
<td>1.2.6. Identify needs for capacity-building related to PHM at farm and community level</td>
<td>HSI/AFAAS/Agridea</td>
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<tr>
<td>1.2.7. Elaborate material for awareness-creation and training of farmers and communities on PHM</td>
<td>HSI/AFAAS/Agridea</td>
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<tr>
<td><strong>Output 1.3</strong> PHM practices and systems have been disseminated and adopted</td>
<td></td>
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<tr>
<td>1.3.1. Support organization of awareness campaigns for PHM at level of value chain and other actors</td>
<td>HSI, All</td>
</tr>
<tr>
<td>1.3.2. Disseminate selected PHM practices/systems in intervention areas through use of innovative RAS methods</td>
<td>HSI/AFAAS/Agridea</td>
</tr>
<tr>
<td>1.3.3. Conduct capacity-building of farmers and other involved actors in use of PHM practices and systems</td>
<td>HSI/AFAAS/Agridea</td>
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<tr>
<td>1.3.4. Organize field visits/learning events for farmers, authorities, researchers partner organizations etc.</td>
<td>HSI/AFAAS/Agridea</td>
</tr>
<tr>
<td>1.3.5. Monitor use of PHM practices and systems</td>
<td>HSI/AFAAS/Agridea</td>
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<tr>
<td>1.3.6. Conduct adoption study (after two crop/storage cycles)</td>
<td>HSI/AFAAS/Agridea</td>
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<tr>
<td>1.1.2017-31.3.2017</td>
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### Outcome 2

#### Output 2.1 Good PHM practices and systems have been documented and used in networks

| 2.1.1. Compile/document learnings & good practices reg.PHM technologies and market systems in promotion | AFAAS/Agridea |
| 2.1.2. Disseminate good practices in local and regional networks, events etc. | AFAAS/Agridea, all |
| 2.1.3. Contribute to and bring in learnings on good practices in the new CoP PHM (FAO/IFAD/WFP) | AFAAS/Agridea, all |
| 2.1.4. Use new online platform of AFAAS for dissemination and contribute to its development | AFAAS |

#### Output 2.2 Innovative RAS, suitable for effective dissemination and scaling-up of PHM practices have been identified and (further) developed

| 2.2.1. Conduct a survey within AFAAS community regarding experiences of RAS and PHM | AFAAS/Agridea |
| 2.2.2. Screen, compile & analyze current RAS systems, methods and tools (constraints and opportunities for PHM) | AFAAS/Agridea |
| 2.2.3. Elaborate RAS tools and packages to be used by different RAS actors | AFAAS/Agridea, HSI |
| 2.2.4. Identify possible embedded services, for dissemination/advice of PHM, input supply (private sector) | AFAAS/Agridea |
| 2.2.5. Identify suitable media for dissemination and scaling-up (TV, SMS, radio, brochures of service providers) | All |

#### Output 2.3 Relevant actors (RAS agents, farmer org. private sector, government officials and policy makers) have been capacitated on PHM practices and systems

| 2.3.1. Elaborate training/sensitizing materials for different target groups (POs, RAS agents, authorities, private sector) | AFAAS/Agridea, HSI |
| 2.3.2. Conduct trainings for RAS / extension professionals, ToT, NGO’s, authorities, etc active in the topic of PHM | AFAAS/Agridea, HSI |
| 2.3.3. Promote / bring in learnings/experience on PHM actively at events (own participation & partners) | All |
| 2.3.4. Use existing online platforms for exchange and learning (e.g. AFAAS new online platform for dissemination) | All |
| 2.3.5. Conduct survey to evaluate use of trainings | AFAAS/Agridea |
### Outcome 3

**Output 3.1 Relevant policy briefs related to PHM have been elaborated and made available**

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<tr>
<td>3.1.1. Evaluate status of PHM policies in the two focal countries</td>
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<tr>
<td>3.1.2. Facilitate production/development of policy briefs and advisory notes PHM</td>
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<td>3.1.3. Prepare and publish/disseminate policy briefs/advisory notes (events, website, social media, etc.)</td>
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<tr>
<td>3.1.4. Monitor use of disseminated policy briefs/advisory notes</td>
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**Output 3.2 PHM has been included in the agendas of local, national and regional policy dialogue platforms**

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<td>3.2.1. Evaluate the agenda of local, national and regional governments and platforms with regard to PHM</td>
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<td>3.2.2. Establish/update a database of PHM related policy messages at national and regional level</td>
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<td>3.2.3. Facilitate policy dialogue and consultations at local level</td>
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<td>3.2.4. Convene regional and national multi-stakeholder policy dialogues on PHM</td>
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<td>3.2.5. Identify and support participation of PHM policy champions in national, regional or international meetings</td>
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<td>3.2.6. Actively participate in strategic national and regional events</td>
<td>FANRPAN</td>
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<td>3.2.7. Support governments with PHM policy review, drafting and presentation of public/stakeholder consultation</td>
<td>FANRPAN, All</td>
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<td>3.2.8. Link and contribute to the FAO/IFAD/WFP Community of Practice</td>
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**Output 3.3 Frameworks for food standards and norms have integrated PHM aspects**

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<tr>
<td>3.3.1. Facilitate analysis of existing frameworks for food standards/norms, identify gaps related to PHM</td>
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<td>3.3.2. Develop proposal for inclusion of PHM in existing frameworks</td>
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<td>3.3.3. Advocacy to foster inclusion of PHM issues in frameworks and to secure financing</td>
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<td>3.3.4. Monitor progress of updating frameworks and levels of investment in PHM at national and regional level</td>
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**Monitoring and Evaluation**

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<td>4.1.1. Monitoring, evaluation and capitalization of experiences</td>
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<td>4.1.2. Midterm Review</td>
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