

I. Contact Information

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Organization website	www.cipotato.org
Organization type	CG center
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Organization description and date established	CIP is a CGIAR center with the mandate for potato, sweet potato and Andean Root and Tuber crops. It was founded in 1972.

II. Project Details

Title of Proposal	Poverty impact for smallholder potato farmers in Kenya through concurrent market and technical innovation
Project Duration using Grant Funds (in month)	24
Countries of Implementation	Kenya

III. Primary CGIAR Center Partner

Last Name	Gildemacher
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CGIAR Center Name	International Potato Center
Position at Center	Regional potato specialist, Sub Sahara Africa office
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IV. Other Partners

Name of other Partner Organization(s)	Farm Concern International (FCI)
Type of Organization	Non-Governmental Organization
Name of partner	Mumbi Kimathi
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Name of other Partner Organization(s)	DEEPA Industries
Type of Organization	Crisp and spice processor
Name of partner	Nilesh Shah
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Name of other Partner Organization(s)	KARI Tigoni
Type of Organization	National research organization
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Name of other Partner Organization(s)	Ministry of agriculture, dep. horticulture
Type of Organization	Public extension service
Name of partner	Tom O. Bonyo
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Name of other Partner Organization(s)	KENAPOFA
Type of Organization	Farmer union
Name of partner	Edward Mwamba
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Name of other Partner Organization(s)	GTZ-PSDA
Type of Organization	NGO – Ministry of Agriculture partnership
Name of partner	Gladys Maingi
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V. PROJECT QUESTIONS

1) PROBLEM DEFINITION

Smallholder farmers in Sub Sahara Africa are often poorly integrated into marketing systems and produce agricultural commodities in an extensive manner. Intervening to either improve market integration or the low productivity alone proves to be difficult. Concurrent intervention in smallholder market integration and technological innovation can overcome these challenges and result in reducing smallholder poverty. This project proposes to test a methodology for parallel market and technological innovation with smallholder potato farmers in Kenya.

To date, the ever increasing opportunities for marketing potatoes in Kenya have not been exploited by smallholder farmers. The potato value chain is dominated by brokers, transporters and middlemen, who make marketing processes opaque, thereby limiting access to market information by farmers and offering low prices. At the same time, the processing and retailing industry complain of fluctuating supplies and prices and the dismal quality of potatoes. Apparently any price incentives for high quality production are lost along the marketing chain.

Potatoes are the second most important food crop in Kenya and production has grown with 34% between 1996 and 2005. It is the main cash crop for 500,000 households in the Kenyan highlands. Productivity is, however, stagnant at around 8 t/ha. To keep pace with the growing market for potatoes intensification is required. This is possible through improved crop husbandry, disease and seed potato quality management.

2) OBJECTIVE

General objective:

- Develop and test intervention models for parallel promotion of smallholder market integration and technological innovation.

Specific objectives:

- Test a private sector driven model for vertical market integration
- Test a supply driven model for smallholder market penetration
- Integrate technological innovation into the Commercial Villages Approach (CVA)
- Assess and document the interactions between market access and technological innovation

3) **PROJECT IMPLEMENTATION:**

3.1) Project starting point

The project builds on existing assets and resources of the individual partners, which will be joined to achieve effective system innovation to achieve the objectives in the short time frame:

1. The proven successful Commercial Villages Approach (CVA)

FCI is using the CVA to assure smallholder market penetration. The CVA clusters 300 to 500 households and facilitates formal linkages with the private sector alongside value chain analysis and market research, capacity building and extension.

2. A private sector partner willing to make a long term investment in smallholder based vertically integrated production system.

DEEPA industries is the second largest crisp processor in Kenya with ambitious plans for expansion into the international market. The main bottleneck to expansion are the inconsistent quality and prices of their potato supply. DEEPA industries will invest in a contract farming scheme specifically aimed at smallholder potato producers.

3. A set of options for technological innovation to intensify production

CIP and KARI have pilot tested technologies for integrated management of diseases, seed potato quality management, on-farm potato storage and improved varieties have been tested, adapted and adopted on pilot scale.

4. Working linkages between smallholder farmers and the project partners

In different compositions the partners have worked together on improvement of the potato sector in Kenya, and have the mutual trust and linkages in place for effective project execution.

5. Extensive market intelligence regarding opportunities for product innovation and growth

GTZ-PSDA and FCI have done extensive potato market and root and tuber market research respectively. CIP recently studied the seed potato production chain and the potato knowledge and information system (AKIS-potato). Combined with the practical market intelligence of DEEPA this makes an unprecedented pool of market intelligence that allows for the identification of promising marketing opportunities prior to the project start.

6. Kenya National Potato Farmers Association (KENAPOFA)

Recently a national association of potato farmers (KENAPOFA) has been formed. This project will support the strengthening of its grassroots base. KENAPOFA will be involved in stakeholder meetings and KENAPOFA farmer facilitators will be trained alongside public extension staff to assure improved technologies as well as new marketing concepts reach beyond the commercial village areas.

3.2) Intervention models

Model 1: Demand driven market integration

The best quality potatoes for processing come from the Bomet area. DEEPA will support the development of a contract farming system and station a staff in the area. The contract farming system will be set up using the Commercial Villages Approach by FCI, who will also base a full time staff in the area. For the larger sized tubers (>65 mm) that DEEPA does not want, a branded product will be developed for the fresh consumption market.

Model 2: Supply driven market integration

Farm gate potato prices in Nyandarua are the lowest in Kenya, and the district has acquired a name for cheap, low quality potatoes (CIP, unpublished data). A commercial village will be initiated in the Ol Jororok and Ol Kalou divisions where market integration is limited. Quality

potato products will be developed. A first product will be aimed at the consumption potato market, which requires medium sized potatoes of good finish. Specific branded packaging will be developed aimed at consumer in the cities and larger towns. A large proportion of all potatoes produced in Kenya end up being processed into French fries in restaurants in Nairobi (GTZ-PSDA, 2004). A specific branded high quality potato will be developed aiming at this market. Following the CVA the existing middlemen will be instrumental in the product promotion.

3.4) Monitoring and evaluation

The project will develop a state of the art M&E plan using current best practice in the CG. The plan will be developed in detail during a startup workshop and will be based on:

- Developing a ‘best bet’ impact pathway to describe how project objectives are met from outputs, to outcomes and final impacts defined as changes in the livelihood of beneficiaries.
- Develop a timeline showing how outputs, outcomes and impacts would occur over time.
- Monitoring key variables to capture the delivery over time of outputs, outcomes and impact.

4) INNOVATION

The project aims to maximize poverty impact through concurrent intensification of production and increase of profit margins through market innovation. Adaptive research, technological extension, farmer empowerment and market intervention are combined in a truly integrated approach. The project will intervene with limited resources directly in 800-1000 households, not only aiming at proof of concept, but at achieving a sizeable reduction of poverty in the intervention areas through the induction of change in market relations as well as production practices. The project will provide valuable insight into how market integration can provide an incentive for technology uptake. Furthermore, it will provide insights into opportunities for demand-driven as well supplier-driven market innovation.

5) RELEVANCE and INNOVATIVENESS of PARTNERSHIP

The partnership is innovative as it brings together all different actors involved in the potato chain from strategic research up to potato processing. The private sector will be the driving force behind market change and technological adoption and an NGO the main executing body. All project partners bring a specific competence to the project:

Partner	Role
FCI	Chair project management committee. Broker between market partners. Organize smallholder farmers using CVA. Initiate and manage credit schemes initially.
CIP	Technical support, tailor made training, improved potato varieties, M&E, socio-economic research, publication of experiences, project administration.
KARI	Technical support, build seed potato system, training, adaptive research, M&E
MoA	Day to day technical support commercial villages. Assure project grassroots contacts.
DEEPA	Guarantee market outlet for CV Bomet. Provide credit scheme Bomet.
KENAPOFA	Scaling out of technological and market innovation outside the commercial villages
GTZ-PSDA	Harmonize project with other potato market interventions; Support training of farmers outside the commercial villages.

FCI will chair the project management committee in which all project partners are represented. Local management committees will be formed for both intervention areas with representatives from all project partners involved locally. CIP will assume responsibility for project administration, financial coordination, and reporting of monitoring and evaluation findings.

6) EXPECTED RESULTS:

At the end of the project and measured through the commercial village records: 1) All costs of the contract farming scheme in Bomet are internalized by the processor and the contracted farmers; 2) the Bomet commercial village produces at least 10 tonnes of high quality potatoes for DEEPA per day and is supplying at least one other crisp processor; 3) At least 5 tonnes of a branded consumption potato will be sold on average; 4) At least 10 tonnes of branded chipping potatoes are sold on average per day; 5) The minimum 800 participating farm households will have increased per area yields by at least 25%, and their benefits from the potato enterprise by at least 40%. This will be measured through a baseline survey among 20% of participating households (randomly selected), revisited at the end of the project.

The development community will benefit through the development of approaches towards parallel technical and market innovation. The experiences will be made available through an international scientific publication as well as a popular development newsletter. Kenyan development partners will be invited for an end of project workshop.

7) REPLICABILITY:

With the support of social science experience in CIP success factors and breaking points will be identified through participatory M&E. A final process manual will be written which will enable project experiences to be applied to other commodities and beyond Kenya. The principle of concurrent technical and market innovation for development will ultimately be applicable in other marketed commodities in the whole developing world.

Through the project partners of the MoA, GTZ, KARI and KENAPOFA, the methodology will be institutionalized beyond this single intervention, and may be used in the same way or in an adapted form in other development projects of these organizations.

8) SUSTAINABILITY:

The project does not need to continue beyond the 2 years. The commercial villages will have established and the necessary linkages will have been brokered between the different commercial partners. All stakeholders will be benefiting from the collaboration which safeguards continuity. The farmers involved in the commercial villages will have reached a level of organization adequate to deal with the dynamics of the market and be able to defend a premium price for the value added through quality increase.

VI. Proposed Budget

ITEM	Proposed budget (in US\$)						TOTAL
	CIP	FCI	KARI	KENAPOFA	MoA	DEEPA	
Personnel	74,000	49,600	10,000	4,000	30,400	7,500	
Research supplies and services	5,000	20,000	5,000		10,000	10,000	
Equipment	2,000	6,000			6,000	5,000	
Training and other knowledge-sharing activities	5,000	20,000	5,000	2,500	5,000		
Travel	8,000	20,000	10,000	2,500	8,000		
Communication	4,000	2,000	2,000		2,000		
General administrative expenses	6,600	10,800	2,200		3,100		
TOTAL Project Cost	104,600	128,400	34,200	9,000	64,500	22,500	
Co-Financing and Funding (>30%)	32,000	9,600	10,000	9,000	30,400	22,500	113,500
GRANT Funding Request (<70%)	72,600	118,800	24,200	0	34,100	0	249,700
Details of co-financing and funding	CIP	FCI	KARI	GTZ-PSDA	MoA	DEEPA	

sources	senior staff 20%	senior staff 20%	research staff 2*25%	training support; time KENAPOFA	staff time	contract farming scheme	
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