ANNEXES

Annex 1: Cassava productivity and production in 2007

Cassava productivity and production in 2007

Countries	Hectares	Root yield (Mt/Ha)	Metric tonnes
Angola	760 000	11.58	8 800 000
Burundi	82 000	8.66	710 000
Central African Republic	188 000	3.01	565 000
Congo	100 000	9.15	915 000
Democratic Republic of the Congo	1 850 000	8.11	15 000 000
Gabon	45 000	5.33	240 000
Kenya	80 000	10.63	850 000
Malawi	130 000	16.54	2 150 000
Mozambique	990 000	7.42	7 350 000
Rwanda	127 000	6.54	830 000
Sudan	6 000	1.67	10 000
Tanzania	675 000	9.78	6 600 000
Uganda	371 000	12.01	4 456 000
Zambia	175 000	5.37	940 000
Zimbabwe	44 500	4.31	192 000
15 countries totals/average	**5 623 500**	**8.82**	**49 608 000**
Global cassava data	**18 664 658**	**12.22**	**228 138 068**
Africa	**11 904 418**	**9.90**	**117 887 143**

Annex 2: Budget description

CaCESA summary indicative budget by item	
Description	**USD**
Professional staff	7 760 000
General service staff and temporary assistance	830 000
Consultants	2 770 000
Contracts	27 370 000
Training	9 750 000
Travel	3 880 000
Expendable procurement	20 250 000
Non-expendable procurement	15 430 000
Technical support services	5 780 000
General operating expenses	8 500 000
Support cost	10 230 000
Total	**112 550 000**

Budget item description

Professional staff

Headquarter level

- Backstopping from technical services based at headquarters
- Operation officer cost-shared based at headquarters in charge of project follow-up and liaison with Donors

Regional level

- Senior Team Leader, based in Nairobi, in charge of the overall technical management of the programme
- Deputy Team Leader, based in Nairobi, in charge of the operational management of the programme
- Farmer Field School Expert, based in Nairobi, in charge of the technical supervision and implementation of the Farmer Field School component of the programme, particularly under Output 4
- Liaison and Communication Officer, based in Nairobi, in charge of supporting the development of regional communication modalities and tools as well as providing briefing documents to donors, partners and FAO services

- Plant Protection and Production Officers, based in Addis Ababa (Subregional Office for Eastern Africa), Libreville (Subregional Office for Central Africa) and Harare (Subregional Office for Southern Africa), on a cost-sharing basis, in charge of technical backstopping and liaison with regional institutions
- National Geographic Information System (GIS) Officer, based in Nairobi, in charge of the consolidation of regional databases and mapping and training of regional partners
- National GIS Experts, based in Addis Ababa (Subregional Office for Eastern Africa), Libreville (Subregional Office for Central Africa) and Harare (Subregional Office for Southern Africa) on a cost-sharing basis (three months per year) in charge of technical support to countries and subregional information management

Country level

- National Project Officer, one per country, in charge of the field implementation of the programme, including technical and operational issues
- National Farmer Field School Officer, one per country, in charge of the technical implementation of activities foreseen under output 4 in particular
- National GIS Officer, one per country, in charge of data management and mapping of activities, partners, disease risk, etc.

General service staff and temporary assistance

Regional level

- Administrator, based in Nairobi, in charge of the overall administration of the programme and consolidation of financial tracking, follow-up, and report
- Administrator, based in each of the subregional offices and on a cost-shared basis, to manage field budget authorizations addressed to subregional offices
- Finance assistant, based in Nairobi, in charge of project disbursement tracking and procurement issues
- Finance assistant, based in each of the subregional offices and on a cost-shared basis, to follow financial disbursement
- Driver based in Nairobi
- Driver based in each of the subregional offices and on a cost-shared
- Overtime, to cover the cost of support personnel based in Nairobi and at subregional office level (secretary, messenger, data entry clerk) on a cost-shared basis

Country level

- Administrator, based in each country and on a cost-shared basis, to manage field budget authorizations

- Finance assistant, based in each country and on a cost-shared basis, to follow financial disbursement, local procurement and contracts
- Driver based in each country and on a cost-shared basis
- Overtime: to cover the cost of support personnel based at country level (secretary, messenger, data entry

Consultants

To cover the cost of various ad-hoc and outsourced consultancies on specific expertise at regional and country level. Type of studies and consultant profiles will be determined with all partners as needs arise.

Contracts

FAO, through its Regional Emergency Office for Africa based in Kenya, its Subregional Offices (Eastern Africa based in Addis Ababa, Central Africa based in Libreville and Southern Africa based in Harare), its country-based Emergency Coordination Units and/or FAO Representations, will be responsible for the overall implementation of the project. However, some activities will be carried out by implementing partners through Letters of Agreement (LoA).

The procedures applying to the use of LoAs is laid down in FAO Manual Section 507. A LoA is an instrument setting forth the terms of agreement between FAO and a non-profit organization (implementing partner) for carrying out some of the activities included in the project, for the production of specified outputs, which will contribute to the achievements of specific objectives through the supply of services and/or other work product(s). The LoA consists of a standard agreement and an annex to the agreement, which outlines the terms and conditions and clearly describes the output (services and/or work products) to be provided under the agreement. LoAs are not used for cases such as employment contracts, purchase order/commercial contracts, or contracts for printing, writing, editing or translation. For these cases, separate procedures and contracting instrument exist. Implementing partners will be selected by FAO together with the respective Ministries of Agriculture and coordination groups on the basis of their technical expertise and proven records in similar activities in the targeted regions/districts. A note for the file is systematically developed specifying the process and reasons for the selection of the implementing partner instead of other potential partners, based on their suitability, technical competence and risks associated.

NGOs are FAO's main partners. However, under this project additional partners are foreseen, including national research institutes. The relationship between FAO and its implementing partners is purely on a non-profit base.

Training

This includes the cost of national and regional coordination workshops and publications as well as in-country training of partners (farmers and institutions). Awareness campaign material is also included.

Travel

This budget component includes estimated in-country transportation costs and daily subsistence allowance applicable to international and national project personnel travelling within the country, according to standard UN rates; international travel by technical and operational FAO staff on backstopping missions; study tours and other travel by government officials; travel by trainees for participation in courses organized by the project. Hazard pay and rest and recuperation travels are applicable to international personnel working in insecure areas (i.e. countries with security phase III and above) and according to UN rules. Air-tickets and terminals are also provided for international travel departure and arrival related costs.

Expendable procurement

All procurement contracts will be awarded and implemented in accordance with the procedures and standard documents laid down and published FAO). The list and quantity of material to procure will be fine-tuned for each country at project inception. However, this will include cassava vegetative material adapted for each country, fertilizer (not in every country) and tools as required. Furthermore, this budget line includes the cost for Farmer Field School activities.

Non-expendable procurement

Each country will receive funds for the procurement of equipment such as computers, printers, Global Positioning System and vehicles (cars or motorcycles), either in replacement of obsolete equipment or to equip sub-offices at field level. Some equipment will also support the regional level coordination role (replacement of copy-machine and laser colour printer). At the end of the project, the equipment will be either transferred to the next phase of the project, if applicable, or will be transferred to the local authorities, governments or local partners, according to FAO rules.

Technical support services

- Reporting: relates to the reporting services deriving from the legal obligations of the project.
- Technical support services: covers the costs of technical support and expertise to ensure the proper implementation and monitoring of the project achievements according to FAO standards and in line with the recipient government policy for responsible and sustainable management of natural resources. It provides for technical backstopping (site visits and missions) and technical support from FAO relevant lead technical divisions, responsible for the technical clearance of project documents (including reports, terms of reference of project staff, reports, LoA, quotations from potential suppliers, etc.), clearance of technical specifications of inputs to be procured, and clearance of the résumé of candidates for the recruitment of technical staff to be assigned to the project implementation.
- Evaluation: covers project evaluation costs.

General operating expenses

General operating expenses cover the operational costs directly related to the various field activities and field offices of the project, including communications (telephone and internet connection on a cost sharing basis of field offices), maintenance and repair of vehicles used for project implementation (including fuel and insurance), electricity, water and other utilities costs, rental of office space, storage and transportation of inputs, both at country and regional level in Nairobi. In addition, some funds under this budget line will be used to ensure project visibility (caps, banners, T-shirts, press releases, etc.). All the costs included under this line are itemized costs, necessary to carry out the project activities and are therefore directly linked to the project, in particular to cover running costs at field level, usually on a cost-sharing basis with other projects. As such, it is different from the support costs (overheads costs, a lump sum provision of 10 percent to contribute to the functioning of the organization).

Support costs

This budget component covers the standard overheads costs of the Emergency Operations and Rehabilitation Division (TCE) at FAO headquarters for the overall management of the project as well as the central services including personnel, administration, finance, procurement, etc.

Annex 3: Note on Farmer Field Schools

Introduction

In highly diverse smallholder farming systems conventional extension approaches that have for long been characterized with crop specific blue print messages have been inadequate in addressing complex concepts like pest and disease management. This is even worse once shocks to livelihoods like pests or disease epidemics set in marginal areas and communities affected by civil strife where access to extension services is limited. It therefore calls for appropriate and holistic approaches that will empower the affected communities to recover from the shocks and re-engage in sustainable livelihood options in a shorter time. The Farmer Field School approach has lately proved to be an excellent viable alternative in such a situation by empowering farmers to make logical crop management decisions and adapt new technologies to changing situations.

Approach

Farmer Field Schools provide a forum for farmers to meet and discuss real issues affecting their livelihood and experiment together on possible solutions that they can implement. As an extension approach, it is a community based and participatory discovery learning process built upon the principles of adult education. It is a practically oriented field study process involving groups of farmers with a common interest who get together on a regular basis (ranging from weekly for early maturing crops to monthly for perennial ones) to study the "how and why" of a situation in a given context under the guidance of a facilitator.

Cassava Farmer Field School

Credit: FAO/C. Ferrand

Farmer Field School

Credit: FAO/C. Ferrand

A typical Farmer Field School consists of 20-30 participants working in small groups of five to enhance the participatory learning process. The approach is particularly adapted to field learning activities that require specific practical hands-on management skills and conceptual understanding and is a season-long training, generally one to two agricultural production cycles. The learning process is systematic and guided by situation specific but holistic curriculum that follow natural cycles of the subject, such as crop, animal, natural resource, commercial enterprise or a community problem that requires collective action, for example, "seed to seed", "kid to kid" or "egg to egg".

In developing the curriculum, learning topics and activities are directly related to the specific crop growth stage and related observation parameters including, among others:

- Insect populations (pests, natural enemies, other like pollinators, decomposers, etc.);
- Crop health-vigour, disease symptoms and nutrient deficiency symptoms;
- Physical damage and possible cause(s) (pests, disease, stress condition, etc.);
- Morphological characteristics of the plant related to the crop growth stages;
- Overall field conditions (weed status, soil condition, uniformity of the crop development); and
- Weather.

They relate their observations to the ecosystem and apply their previous experience and any new information to make a crop/livestock/enterprise management decision. This hands-on training following a crop phenology and frequent agro-ecosystem analysis equips farmers with the necessary requisite skills to manage their own fields with confidence. They recognize the different factors in the agro-ecosystem, understand their interaction and relate to the plants' development stage. Beside that, farmers learn the population dynamics of pests and natural enemies across the season and come to appreciate plant attributes like the compensatory behaviours in some crops, response on crops to moisture or nutrient stresses in a holistic manner.

Each Farmer Field School has a field study site convenient to all the farmers where they conduct different comparative/validation studies and experiments of their own to reinforce the underlying basic science and indigenous knowledge. In addition to the study sites, each of the participants is encouraged try out the practices learned at the study site in their own gardens or similar enterprises where applicable at household level. In all training activities, strong emphasis is placed on food security and self-reliance through better entrepreneurial skills, income generation for either short- and long-term enterprises or collective marketing in order to ensure economic empowerment of the participating farmers and give the approach livelihood relevance.

The season-long learning activity based on a comprehensive curriculum provides opportunity for various partners to build synergy. Whereas the technical content maybe developed around a selected entry point which forms basis for the core learning activities, farmers' priorities that have a direct bearing on their livelihoods are holistically incorporated into the action plan and curriculum. Farming as a business and internal savings mobilization have become popular integrations as core modules in all Farmer Field School as deliberate endeavour to build the groups' financial capital. Other common important inclusions have been HIV/AIDS, gender based violence, conflict resolution, basic principles of nutrition, reproductive and family health care, malaria control, immunisation, basic principles of environmental management, water and soil conservation and basic financial management skills. This responsiveness to farmers' needs has been a fundamental factor in enhancing the farmers' ability to articulate their community needs and make more realistic demands for services or come up with their own solutions, thus determining their destiny.

The inherent attributes of the Farmer Field School approach to cultivate willingness among farmers and self-confidence (particularly for women), to learn together while solving problems that affect their community, builds their social capital as individuals. As a precursor to transformation, the level of empowerment and organization developed in a Farmer Field School is critical and can have significant impact on the marginal returns in any subsistence-based farming system. Subsequently, the strong intra- and inter-group cohesion within and among Farmer Field School groups leads to the emergence of higher level associations like the Farmer Field School networks engaging in a range of collective commercial activities.

Guiding principles

Communication: Communication must take place at the field level, dealing with field issues in a dialogue with learners. The field school deals not only with the practices that farmers want to learn about but with farmers as farmers. Farmer Field Schools are conducted for the purpose of helping farmers to master and apply field management skills. The farmer implements his or her own decisions in his or her own field.

Problem-posing/problem-solving: Within this form of training, problems are seen as challenges, not constraints. Farmer groups are taught numerous analytical methods. Problems are posed to groups in a graduated manner such that trainees can build confidence in their ability to identify and tackle any problem they might encounter in the field.

Farmer Field School Credit: FAO/C. Ferrand

Field based education: Putting the classroom in the field allows the field to be the learning material and the farmer to learn from real live examples. Putting the classroom in the field means that the educator (extension worker) must come to terms with the farmer in the farmer's domain.

Principles, not packages: The Farmer Field Schools teaches principles, any activity encompasses several principles, principles bring out cause and effect relationships, principles help farmers discover and learn, principles help farmers learn to learn so that they can continue to learn. Packages have nothing to do with learning and do not encourage learning in the long run they are neither cost effective nor effective at improving the quality of farmers' management skills. Skilled farmers can optimize yields independently of others. Packaged approaches increase the dependence of farmers on central planners.

Training driven research: Research must be responsive to field needs. By and large researchers have got it backwards. Research programmes in agriculture drive the extension or education programme that the research should actually be serving. What farmers need to know to be able to operate sustainable, both environmentally and economically, should drive the research programme. In the Farmer Field School approach, all research is based on training needs or is an adjunct of training. Farmers have become a part of the research network supporting educational programmes.

Generic activities

Below are some of the generic activities followed in Farmer Field School programmes:

a) Identification of competent and interested implementing partners in the targeted communities

b) Identification of resident facilitators in the targeted communities

c) Conducting a 2–3 week training of facilitators' course introducing them to the Farmer Field School methodology which is subsequently followed by backstopping on the specific technical content depending of the enterprises selected by the respective communities

d) Ground working which involves a series of preliminary activities including community gap analysis, resource mapping, sensitization and action planning

e) Group formalization that involves constitution making, coming up with group leadership in place, registration of the group with the community development office, opening up of Farmer Field School savings bank accounts, putting a savings mechanism in place, enterprise selection among others

f) Adapt Farmer Field School curriculum and season-long study schedule to the selected enterprise and the groups' priorities to be addressed

g) Conducting a season-long Farmer Field School learning process where the group meets on a regular basis at a study field where basic science concepts are blended with practical exercise following a crop phenology

h) Conduct monthly review and end of season evaluation workshops

i) Hold field days as an outreach by the Farmer Field School to the immediate neighbouring communities

j) Conduct exchange visits to enhance faster diffusion of innovations among the farmers

k) Establish commercial activities for income generation alongside the study enterprise

l) Graduation of the farmers upon completion of two study cycles

m) Establishment of Farmer Field School Networks as an exit strategy to carry on the activities that the groups in a given community have started. Often these are supported to manage capital assets like grinding mills or linked to large-scale agro-processing entrepreneurs

Healthy cassava plant

Credit: FAO/C. Ferrand

FOOD CHAIN CRISIS
Management Framework

The **Food Chain Crisis Management Framework (FCC)** is the Food and Agriculture Organization of the United Nations (FAO) primary instrument to address the risks to the human food chain in an integrated and interdisciplinary manner.

The FCC supports FAO Member Countries in the global governance of threats to the human food chain at all stages from production to consumption.

The **Cassava diseases in central, eastern and southern Africa (CaCESA)** strategic programme framework will be implemented through the FCC.

www.fao.org/foodchain