PART III – PROGRAMME FRAMEWORK

The CaCESA programme framework suggests how the countries involved can design their national programme based on the nature of the cassava pest and disease situation they face, and the food security and vulnerability situation.

CaCESA is set out in five main sections:

3.1 Vision

The CaCESA programme framework aims **to support and enhance the livelihood of vulnerable farming households** through better and timely cassava food security interventions in order to mitigate hunger.

In the longer term, the cassava production system in central, eastern and southern Africa should be characterized by the following:

- farmers generating more income out of their cassava production, producing more root, and added-value products;
- farmers developing, adopting and sharing good production and pest management practices;
- a national and regional pest and disease early warning system in place minimizing the impact of pests and diseases (in terms of fewer farming households affected, less badly or for shorter periods);
- resilience at local level with farmers able to withstand shocks to production of cassava caused by new pests or diseases, with conscious and planned coping strategies; and
- coordination involving all stakeholders seeking to find new palatable disease-resistant and high-yielding varieties.

This represents a vision for the longer-term development of the sector; some items are relevant for immediate food security, but significant progress towards these longer-term ends may require 3– 5 years or longer.

3.2 Goal

The overall goal of the CaCESA programme framework is **to assure food and income security for cassava-dependent vulnerable populations** through better control and management of pests and diseases in central, eastern and southern regions of Africa.

In targeting this goal, CaCESA addresses the human dimension, considering the consequences of population movement, as well as issues of coordination dealing with governance and policy, and of harmonization of the activities of the various actors in the cassava development sector (ministry, extension, NGO, farmers and others). It also includes longer-term crop-related activities from the research domain which can support emergency operations as need arises, for instance in providing new cassava varieties or techniques to deal with specific pests or diseases.

Ongoing projects and activities already contribute to the framework. The framework will be used to identify gaps in provision and can help in the design of more complete interventions in successive phases, if required.

3.3 Outcome

The outcome of the CaCESA programme is **to increase cassava productivity and production by reinforcing the capacity of the most food insecurity prone subsistence farmers** to prevent, mitigate, prepare for and respond to cassava-related diseases in the region.

The outcome of CaCESA will be achieved through a five-pronged strategy which intends to create a conducive environment for sustained food security in disaster-prone areas. First, the programme will address the high demand for healthy cassava vegetative material, both for resettling populations and for farmers affected by cassava diseases. Second, by increasing awareness on cassava-related diseases at all level, the programme will contribute to reducing risky behaviour particularly in the supply of planting material. Third, mechanisms for national and regional coordination are meant to increase knowledge sharing between all stakeholders and institutions, thus leading to highly cost-effective and technically-sound interventions. Fourth, harnessing existing indigenous knowledge on cassava production through participatory exercises will strengthen community-owned management strategies for diseases. Finally, surveillance and early warning networks will be the key to reducing disease progression within and between countries.

Such a strategy should lead to five outputs:

Output 1: Mechanisms for quick multiplication and distribution of clean and tolerant cassava varieties enhanced

Output 2: Awareness and publicity of the impact of cassava diseases, appropriate responses and possible coping strategies at all levels strengthened

Output 3: National and regional coordination strengthened

Output 4: Farmer knowledge and skills on cassava production including pest and disease management aspects strengthened

Output 5: Wide-area disease management improved

Farmer harvesting cassava

Credit: FAO/G. Napolitano

3.4 Outputs

The outputs of CaCESA are designed to have a rapid impact, building on existing and successfully implemented approaches and systems. They draw upon the lessons learned since 2006 from the various regional initiatives (see section 1.4 for description of key projects). Building on what already exists provides a rapid start-up of activities and is an important asset in designing a disease mitigation response.

Output 1: Mechanism for quick multiplication and distribution of clean and tolerant cassava varieties enhanced

Any plan to multiply varieties of cassava would engage only varieties that farmers can access (released varieties). Such varieties should be tolerant to the two major diseases (CMV and CBSV). Where CBSV has not been reported or areas with low incidence (suggested less than 20 percent), stems may be multiplied and distributed in ways that preserve the wholeness of the stems or cuttings when they reach the grower. Each country must make an explicit choice of what is in the best interest of its vulnerable people, which implies the creation of effective national coordination (see Output 3). However, if nothing is done, farmers will do something to survive, even if it risks worsening the situation.

Villagers peeling cassava. Each person in Africa eats around 80 kg of cassava per year

Credit: FAO/G. Napolitano

Output 2: Awareness and publicity of the impact of cassava diseases, appropriate responses and possible coping strategies at all levels strengthened

Farmers, frontline extension agents and policy makers in the related ministries need to understand the impact of CMV and CBSV infection, and the strategies to be adopted to sustain cassava production. The means of communication will be different for each group of stakeholders in the cassava production system.

Output 3: Regional and national coordination strengthened

Each country differs in their level of central arrangements for discussion of cassava challenges and how to tackle them. Some structures exist but may not function as regularly as expected due to funding problems. This lack of funding is itself the result of lack of priority assigned to the issue by government, hence the need for a major advocacy effort principally by FAO. Regional coordination will involve FAO, CRS, IITA, ASARECA, COMESA, the Central African Economic and Monetary Community (CEMAC) and any other institution or agency with significant stake in the cassava sector in the region.

Output 4: Farmer knowledge and skills on cassava production including pest and disease management aspects strengthened

Most of the ongoing efforts have been concentrating on multiplication and distribution of disease-tolerant varieties; relatively little attention has been given to the broader and basic aspects of integrated crop management. However, the impact of the diseases seems to be amplified by the poor husbandry practices. Farmers do not recognize that crop nutrition and field sanitation are also factors in the plant's ability to tolerate disease and improving these areas is also a valid coping strategy in the absence of tolerant or resistant cassava varieties.

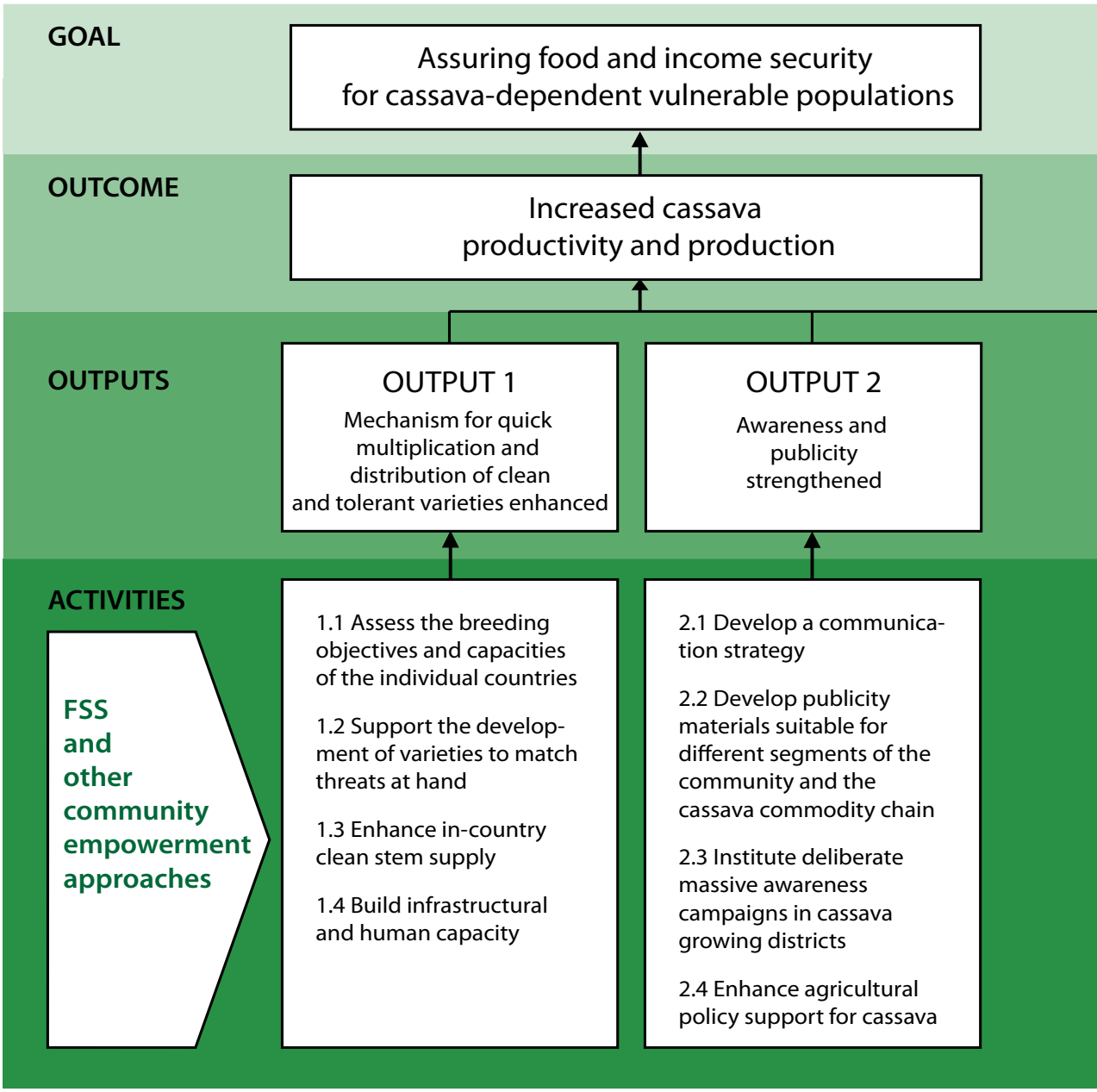
Output 5: Wide-area disease management improved

The management of disease in this framework relates to two key activities. First there is the need to reduce the spread of cassava diseases, by reducing the movement of stem across different agroecological zones, between countries and within districts of the same country. The second aspect relates to the need for an operational early warning system to be established to gather cassava disease data locally and ensure high quality local advice to all stakeholders particularly to farmers on the appearance, incidence, severity and coping strategies

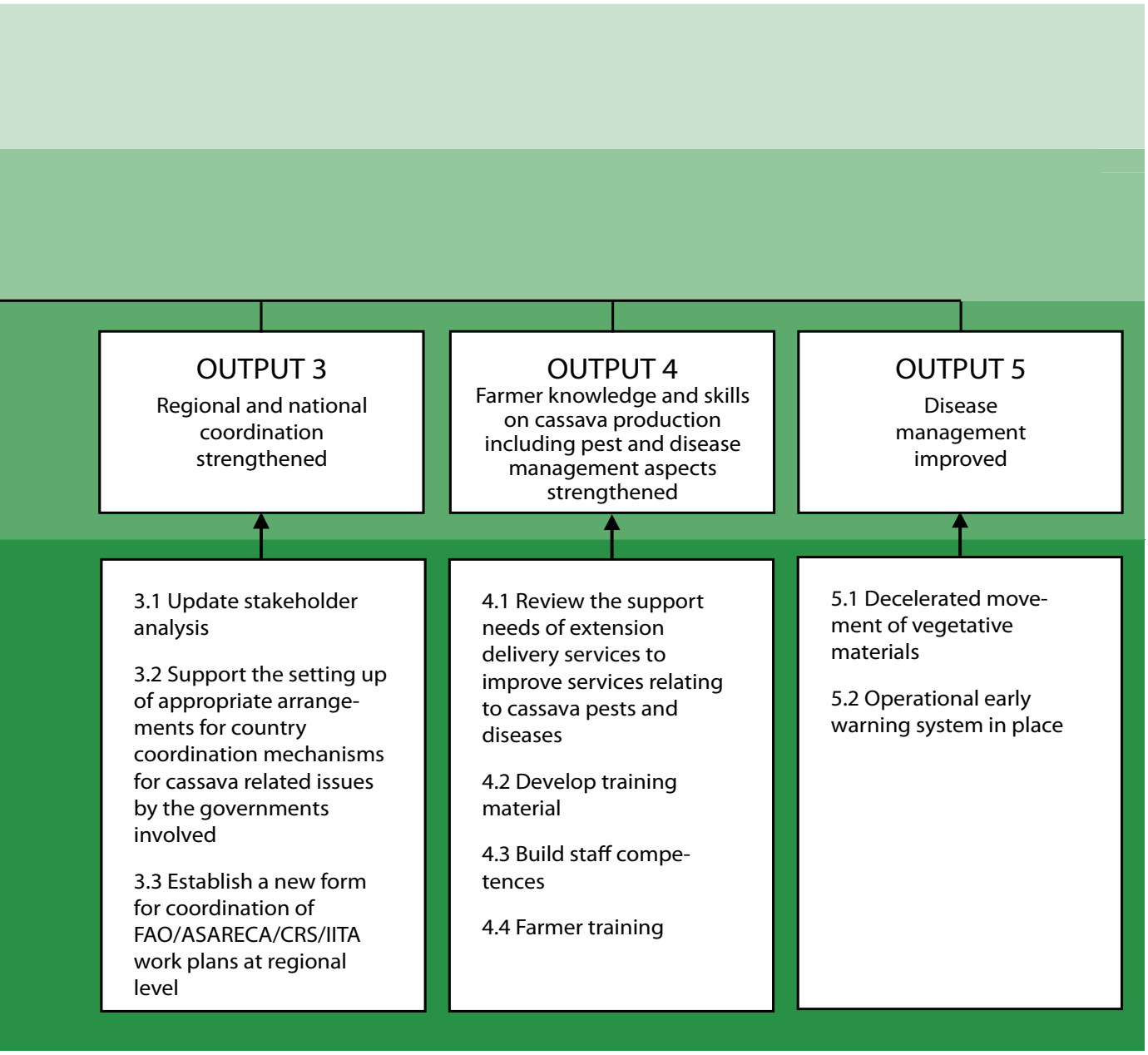
3.5 Programme activities

Each of the five outputs is achieved through activities that can be incorporated in programmes designed under this framework. As stated above, these should be considered a menu of options or even a checklist to review ongoing projects and programmes.

Figure 5: Programme objective hierarchy – Cassava-based food security



The 15 countries being targeted should consider how each activity may apply to the specific challenges they face. Both the challenges faced and the capacity to face them differ from country to country. Consequently, each participating country should select the activities it can handle to achieve the expected programme outcomes.



Output 1: Mechanism for quick multiplication and distribution of clean and tolerant cassava varieties enhanced

In order to improve the in-country multiplication and distribution of clean and tolerant cassava varieties, the following activities will be carried out:

Activity 1.1: Assess the cassava breeding objectives and capacities, varietal registration and areas for improvement of the individual countries

To address scarcity of acceptable tolerant varieties, a broad review of the cassava breeding objectives and capacities, will form a basis for the type of support to the national programmes in order for the release of new varieties to match threats at hand and enhance in-country clean stem supply. Such a review is required immediately, even if the benefit – through subsequent investment in cassava breeding – will be in the long term.

Activity 1.2: Support the development of cassava varieties to match threats at hand

To enhance adoption of new cassava varieties, increased support to on-farm trials and participatory variety selection is needed. This will be coupled with adoption studies to improve understanding of social and economic factors affecting the process.

Activity 1.3: Enhance in-country clean stems supply

Multiplication activities will continue to be supported while stressing the importance of ensuring that material distribution is clean. In close collaboration with implementing partners in the affected communities, the programme will help identify needs for primary, secondary and tertiary multiplication sites based on geospatial considerations to minimize distribution distances.

In cases where disease infection is already present, disease tolerant varieties could be multiplied; where the diseases are not present this should be avoided. To hasten the cleaning and multiplication of identified superior varieties tailored support to the Kenya Plant Health Inspectorate Service (KEPHIS) or any equivalent facilities in the region should be provided on request.

Activity 1.4: Build infrastructural and human capacity

Activity 1.4.1 Publish authoritative guidelines for cassava stem multiplication

The programme will collate, harmonize and operationalize existing quality management protocols (QMP) and finalize technical guidelines on quality standards for vegetatively propagated crops.

Activity 1.4.2: Conduct annual census and certify quality of material issued at nursery level

Primary, secondary, tertiary and community level multiplication sites developed with the support of NGOs represent over 70 percent of all multiplication sites at the moment in the targeted communities. There is a need for a mechanism for regular monitoring of multiplication sites.

With the introduction of the certification and quality standard tool, the programme will be able to certify all cassava nurseries or take remedial action where disease incidence, plant density and/or variety result in sub-standard planting material. It should be recognized in the latter case that removal of certification will not necessarily remove the site from the local production system, so the emphasis must be on encouraging producers to comply

rather than punitive sanctions, and that any pressure to comply should be through the intervention of local (village) authorities.

Activity 1.4.3: Build capacity for tissue culture

To meet the demands for clean planting material, the programme will seek to formalize public-private sector partnership in the vegetative seed system. In particular, a review of existing tissue culture laboratories to identify capacity gaps that can be addressed by the programme will be urgently carried out. Tailored capacity building will be carried out for researchers and technicians in plant breeding and plant health.

Output 2: Awareness of the impact of cassava diseases, appropriate responses and possible coping strategies at all levels strengthened

Activity 2.1: Develop a communication strategy

Associated with national contingency planning and early warning is the need to communicate potential threats to producers in a timely manner. The development of national communication strategies – as an element of national coordination (Output 3) – will be supported to ensure consistent and timely information is provided to all key stakeholders.

Activity 2.2: Develop publicity materials suitable for different segments of the community and the cassava commodity chain

To support the diffusion of cassava-related information at all levels, an assortment of awareness and publicity materials suitable for different segments of the community will be needed. The best starting point will be the initial materials developed by ASARECA with the Centre for Agriculture and Biosciences International (CABI).

Activity 2.3: Institute deliberate massive awareness campaigns in cassava growing districts

A deliberate massive awareness campaign is envisaged to provide communities with the basic working knowledge for identifying cassava diseases, preventing the spread of stems from such infected plants and distribution of coping strategies assembled from other locations that have been known to work, as well as preparedness against the use of susceptible cassava varieties and the ready adoption of tolerant varieties. For credibility, such communication should be allied with that of the existing rural development and agricultural extension services, use media accessible to the end user, and focus on what they can practically do either in reporting to a specified pest or disease threat, or measures they can take to safeguard their own crop.

Activity 2.4: Enhance agricultural policy support for cassava

Collate technical, scientific and experiential information from farmers to provide such evidence for policy decision-making, supported by advocacy such as can be provided by FAO. The programme framework will specifically support the preparation of evidence based position document(s) on the contribution of cassava to the national/district food basket. In the longer term there will be a need for value chain analysis for the cassava sector and the development of strategies for investment in post harvest.

Output 3: Regional and national coordination strengthened

Activity 3.1: Update stakeholder analysis

There is an urgent need to identify and map all projects, programmes, agencies and key staff engaged in cassava programme implementation across the region, including description of their roles and strengths. This has begun through the regional meetings held by the FAO/ECHO project and should be extended and published for the benefit of all working on cassava disease management in the region.

This would require a one-off stakeholder meeting covering the identification of stakeholder analysis, as well as the disease situation, contingency planning and coordination mechanisms for the 15 countries. The meeting should involve from each country at least one person from the research organization with an interest in cassava production systems, and one from the Ministry of Agriculture.

Activity 3.2: Support the setting up of appropriate arrangements for country coordination mechanisms for cassava related issues by the governments involved

The creation of a national commission for crop pest and disease control in Burundi in 2006 was a major breakthrough in term of coordination efforts to tackle cassava related disease. However, the commission is heavily dependent on external resources. Similar models could be considered in countries threatened or affected by the diseases, in the interests of preparedness and the sustainability of disease management efforts. Advocacy by FAO at the highest levels could help ensure such activities are prioritized when allocating resources. Once the principle of funding for national committees or commissions is endorsed and lead persons/institutions identified, FAO can provide support, training and assistance for such bodies for the initial duration of the project and/or until a full autonomy can be reached.

Where the Ministry of Agriculture is the convening agency, there is need to support their ability to host a national meeting every six months.

Work on preparedness and contingency planning will depend on the collaboration of Ministry of Agriculture plant protection as well as crop production and extension units. Their operations would need support over and above the usual government budget to cope with new responsibilities for coordinating a large-scale disease management effort.

The role of secretariat to the national coordination mechanism includes gathering, analysing and disseminating needed information to national mailing lists of key workers and stakeholders in the cassava sector. Creating a common knowledge base is the pre-requisite for focused discussion (and resolution) of the cross-cutting issues affecting the sector.

The need to work together indicates that government cannot be expected in the least to act alone. The private sector should be notified of ongoing challenges and be encouraged to participate in key decision-making exercises that relate to food supply to the people that work for them as staff or as a social responsibility to other citizens of the nation. The collation of experience and input demands as well as varied levels of funding and other resources will ensure that there is local capacity to catalyse and activate the common interests in the community.

Activity 3.3 Establish a new form for coordination of FAO/ASARECA/CRS/IITA work plans at regional level

The programme will support regular regional workshops convened by FAO, ASARECA, CRS and IITA (and other partners) and attended by national and regional research institutes, Ministries of Agriculture and international and national NGOs. Topics will be defined in consultation with national coordinating commissions.

Output 4: Farmer knowledge and skills on cassava production including pest and disease management aspects strengthened

In order to enhance farmer knowledge and skills on cassava production including pest and disease management aspects through participatory methodology, the following activities will be carried out:

Activity 4.1: Review the support needs of extension delivery services to improve services relating to cassava pests and diseases

The programme framework will be used to take stock of civil society presence and capacities, and identify potential implementing institutions based on set criteria to undertake specified interventions aimed at improving farmer knowledge and skills on cassava production. Where possible, and upon request, the programme framework will identify needs to bolster the existing extension services by providing necessary tools and approaches capacities; the cassava requirement will be a means of building more general capacity in cassava producing districts. Innovative means of improving access to extension services like the use of community based facilitators and selected members of farmers' groups to facilitate group learning will be explored.

Activity 4.2: Develop training material

To address the critical absence of appropriate training material especially for the frontline extension service providers and farmers, comprehensive integrated crop management training materials will be urgently needed. A rapid baseline survey of practices should be conducted to document sound coping strategies, over and above those already noted. Existing training material will be collated, review and adapted to a comprehensive cassava integrated crop management curricula from which assortments of training material tailored to different target groups (extensions workers, farmer facilitators, farmer groups, and civic leaders among others) will be developed.

Activity 4.3: Build staff competence

To build a critical mass of competent facilitators, both within the extension services (if requested) and with civil society, mobile teams of core experts will be established to conduct facilitator training at national and district levels. The programme framework will also put in place some form of facilitator support mechanism.

Activity 4.4: Empower farmers through large-scale Farmer Field School programme

The framework will help identify areas where specific programmes should support season-long training in affected catchments following group specific curriculum adapted to the local situation. Here, the approach needed is to target critical districts and run an initial set of field schools to train both a critical mass of facilitators specifically for leading groups on cassava-related decision-making (variety selection, disease management and mitigation), and a significant number of farmers. Given the long duration of the cassava growing season, it is likely that field schools could meet over a 1–3 week cycle, up to 20 times over the first year, allowing each facilitator to run several field school groups in parallel. Annex 2 describes field school approaches and their benefits over more traditional extension and education activities.

The approach would initially be to take trained facilitator from existing networks and projects in the affected districts (including large-scale, ongoing exercises such as GLCI, through GLCI farmers groups) and provide them with foundation material. They would develop their own local content suitable to the farming systems and disease situation locally, with the support of facilitation team leaders. The first year would also be used to generate a large knowledge base on effective cassava field practices in the region, reviewed by the facilitation team, to help share local practices and coping strategies.

Output 5: Wide-area disease management improved

Activity 5.1: Discourage movement of vegetative material

The proposed national coordination mechanisms will ensure the broadcast of material on risks of transmission of the diseases, sources of improved cassava vegetative material, focal points, certification, etc., all adapted to local media. Awareness would help farmers understand the losses that would incur when they use diseased stems for planting purposes. There would also be a need to provide clean planting materials as this would reduce the demand for illicit material.

Activity 5.2: Support to disease surveillance activities

An effective and sustainable national surveillance system for cassava disease monitoring, including pathotyping is needed. It should be based on the use of diagnostic kits, which need to be developed for use at field level to identify and monitor infected and non-infected multiplication sites, and undertake field surveillance for both CMD and CBSV. The purpose would be to quickly provide information on the ground to enable management decisions to be taken on stem distribution, and on targeting of awareness material. In the case of positive results, observations can be confirmed by taking samples for laboratory confirmation.

As noted above, surveillance requires sustained funding to ensure the required logistical support. There is also a need to train those involved and ensure that consistent surveillance protocols and operating procedures are followed.

Finally, in most cases there is a need to build data analysis and management capacity, and to ensure feedback mechanisms are in place so that surveillance is not an extractive one way process, but that it returns useful data to those involved in local disease management (which in turn will motivate those involved in data collection).

CaCESA
Strategic programme framework 2010–2015

Villager cooking cassava in preparation of a meal - cassava is a staple food in the Burundian diet

Credit: FAO/G. Napolitano

3.6 Logical framework matrix

Project goal	To assure food and income security for cassava-dependent vulnerable populations through better control and management of pests and diseases in central, eastern and southern regions of Africa	
	Intervention logic	**Objectively verifiable indicators**
Project outcome	Increased cassava productivity and production by reinforcing the capacity of the most food insecurity prone subsistence farmers to prevent, mitigate, prepare for and respond to cassava-related diseases in the region	Cassava yields are restored to pre-CMD and CBSD level at household level by 2012. NB.: Country-wide pre-yield levels will not be achievable by 2012
Output 1	*Mechanism for quick multiplication and distribution of clean and tolerant varieties enhanced*	Number of certified cuttings redistributed and number of beneficiary households by 2010 Survey on funds allocated to breeding programmes Major seed producers (public, private or farmers) trained Tolerant cassava varieties represent a minimum of 30 percent of total cassava planted in targeted areas by 2012 100 percent of cassava multiplication sites have been surveyed, certified or declassified. 100 percent of certified multiplication sites are in conformity with quality standards accepted by countries Recommendation of review of tissue culture capacity building needs funded
Output 2	*Awareness of the impact of cassava diseases, appropriate responses and possible coping strategies at all levels strengthened*	A communication strategy operationalized by end of 2009 Publicity materials catering for different segments of the community and cassava commodity chain developed by end of 2009 Awareness campaigns instituted in 100% of the cassava growing districts 2010
Output 3	*Regional and national coordination strengthened*	Resources committed to cassava disease management at official levels
Output 4	*Farmer knowledge and skills on cassava production including pest and disease management aspects strengthened*	Appropriate training materials developed for frontline staff within the framework of a comprehensive integrated crop management curriculum with CMD and CBSD control as entry point At least 50 core facilitators trained per country Minimum network of 100 Farmer Field School is established in each country with capacity to report on CBSD and CMD
Output 5	*Disease management at field level improved through better awareness on the risk of moving planting infected vegetative material and an operational early warning system providing timely cassava-disease surveillance information to Government authorities, NGOs and donors*	Harmonized surveillance system established and funded An in depth disease survey is conducted in 2009 and 2010 National surveillance teams established trained and equipped in each programme country At least 50 community based sentinel sites for early detection of cassava pests and disease in place A minimum of 100 persons per country are able to report suspected cassava-related diseases to relevant authorities by 2011

Sources of verification	Risks and assumptions
Baseline survey Routine stakeholder status report Alerts bulletins issued Disease maps	*Risk:* Evolution of the viruses into new strains and diseases progress faster than the release and dissemination of tolerant varieties
Reports on the annual census of multiplication nurseries Training reports Dynamic Maps data warehouse Project evaluation	*Assumption:* Well supported breeding process to develop new varieties Funds are available to other partners such as CRS/IITA under GLCI to co-finance disease incidence surveys until 2011 Farmers are willing to adopt improved cassava varieties. The FAO "quality standards for vegetatively propagated crops" manual is published in 2009. *Risk:* MoAs might refuse to accept the FAO quality standard but fail to offer alternative standards. New disease strain emerges
Communication strategy Assortment of communication materials Number of awareness campaigns and workshops carried out	*Assumption:* Awareness material being prepared by ASERECA will be made
Workshop proceedings Dynamic Maps release	*Assumption:* Respective MoA are willing to lead a coordination mechanism on cassava related issues. ASARECA and others want to play an active role in regional coordination *Risk:* ASARECA capacity
Materials developed Training reports	*Assumption:* Facilitators can be identified for initial phase Quality of Farmer Field School and education programme is sustained
Dynamic Maps Programme evaluation	*Risk:* Farmer Field School member leaders are not willing to act as field focal points for disease detection

3.7 Risk analysis

Risk monitoring

- Lack of commitment of stakeholders at regional level: the regional cassava-related workshops will allow FAO monitoring the commitment of all regional partners through tracking of attendance, commitment to co-organize events and information sharing.
- Lack of cooperation between national local stakeholders: this will be monitored through the engagement of stakeholders with national cassava coordination platforms.
- Collection and dissemination of information is hampered: will be monitored through the process of updating of the Cassava Dynamic Atlas.
- Security: is constantly monitored by the United Nations Department of Safety and Security (UNDSS).

Steps proposed within the project to address these risks

- Lack of commitment of stakeholders at regional level: regular individual meetings and workshops will contribute to create a momentum from all stakeholders. If time or human resource capacity is a prime constraints for partners (ASARECA, CRS, IITA and CEMAC), FAO could use part of the funds foreseen under "contract" budget line to increase that capacity.
- Lack of cooperation between national local stakeholders: the full involvement of the FAO Decentralized Offices network is meant to guarantee a strong commitment from local authorities.
- Collection and dissemination of information is hampered: The creation or strengthening of national cassava coordination platform in each country should prevent gap in information collection and dissemination.
- Security: provision of fund is included in the project to ensure timely implementation of UNDSS security recommendations and requirements.

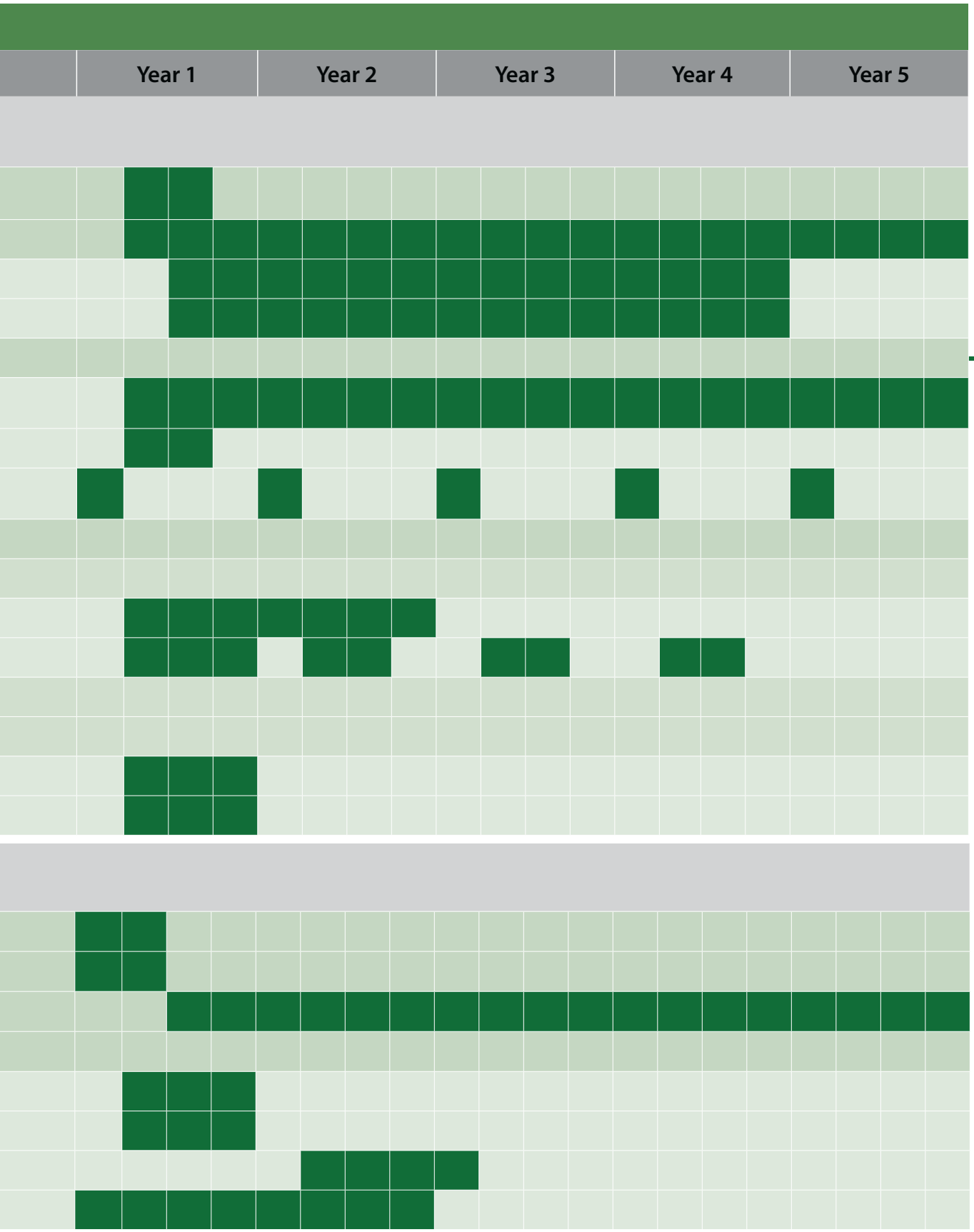
Cassava market along the road - cassava's tuber roots, which look similar to a sweet potato, are rich in carbohydrates Credit: FAO/G. Napolitano

Table 3: Summary of main risks and assumptions

Key risks	Potential impact	Probability	Mitigation strategy	Assumption
Lack of commitment of stakeholders at regional level toward a needs based approach	**Medium:** The direct impact will be an increased risk in intervention overlapping and gaps in coverage. Inability to address the problem at a regional level	**Low:** The stakeholders have already demonstrated their willingness to actively contribute to a coordinated approach to respond to assessed humanitarian needs in the region	Engaging regional stakeholders in dialogue and provision of transparent information for decision-making	Adoption and application of consensual need based approach is not outweighed by other factors (for example budgetary constraints; political pressures)
National local stakeholders non cooperating	**High:** The impact will be important as country activity is essential	**Low:** The probability is low as in general government, local authorities and organizations are cooperating. However in some instances in the region	Using participatory approach in situation analysis, response planning and advocacy	Buy in and support of national/local authorities and other stakeholders Consensual response plans are produced
Collection and dissemination of information is hampered	**High:** The impact will be high as lack of reliable information makes situation analysis and response planning extremely difficult	**Medium:** The risk is medium as some countries in the region have raised objection to dissemination of information	Establishing of partnerships and networks for information collection and dissemination	Strategic dissemination of information is possible
Security	**High:** A deterioration of the security situation would: Reduce access to vulnerable population for humanitarian workers Hamper circulation of people and information	**Medium:** The security situation in the region remains volatile and security incidents have a high probability to happen in several countries	Security is constantly monitored by UNDSS and UN security rules applied Advocacy	External factors not hampering humanitarian interventions

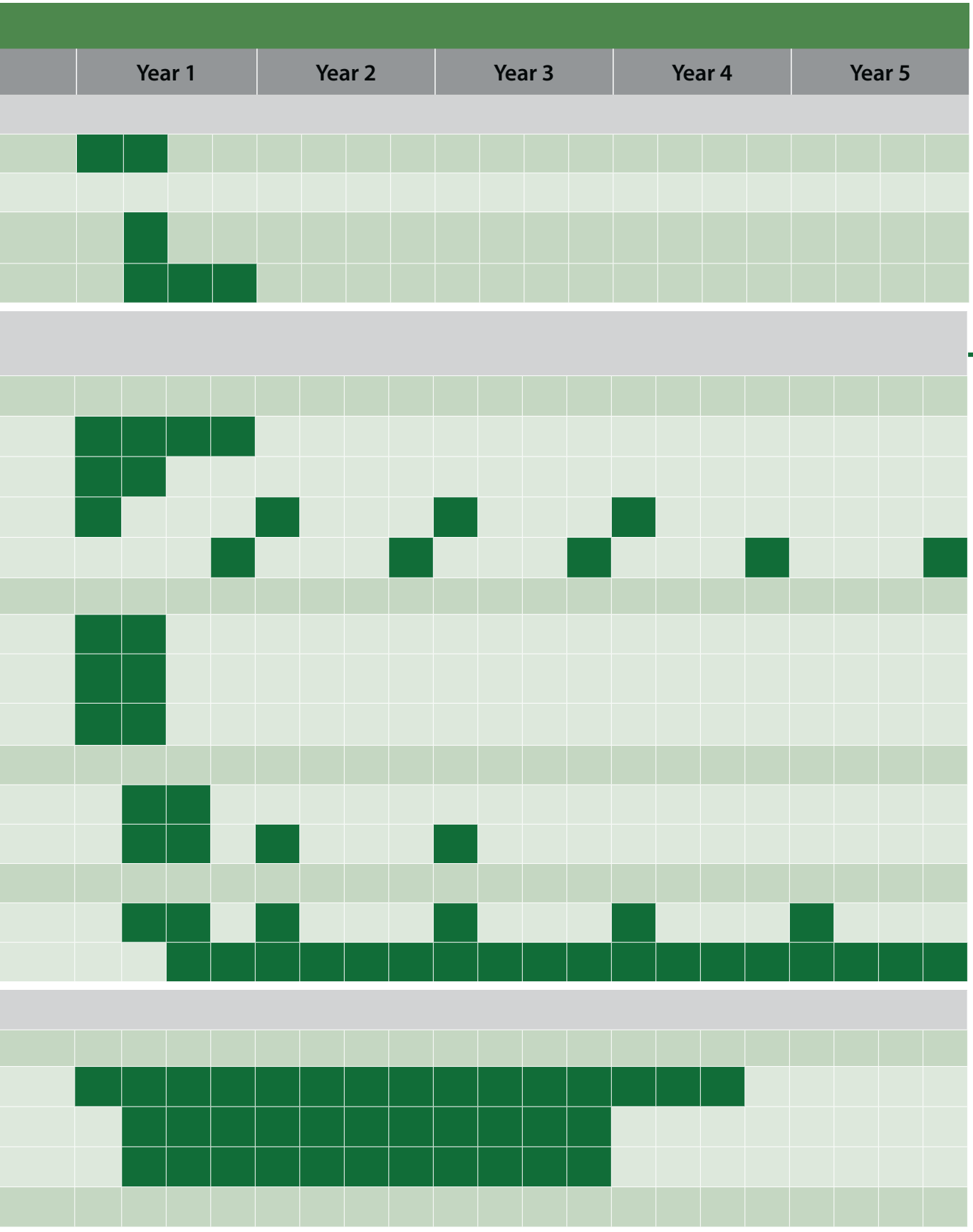
3.8 Implementation plan

Output/Activity
Output 1: Mechanism for quick multiplication and distribution of clean and tolerant varieties enhanced
Activity 1.1 Assess the cassava breeding objectives and capacities, varietal registration and areas for improvement of the individual countries
Activity 1.2 Support the development of varieties to match threats at hand
1.2.1 Support on-farm Trials and Participatory Variety Selection
1.2.2 Support adoption mechanism studies
Activity 1.3 Enhance in-country clean stem supply
1.3.1 Support KEPHIS or any equivalent facility to hasten the cleaning and multiplication of identified superior varieties
1.3.2 Establish a clearly defined seed system for cassava with a pathological focus
1.3.3 Strategic sighting of primary, secondary and tertiary multiplication sites based on geospatial considerations to minimize distribution distances
Activity 1.4 Build infrastructural and human capacity
Activity 1.4.1 Publish authoritative guidelines for cassava stem multiplication
1.4.1.1 Collate, harmonize and operationalize existing QMP
1.4.1.2 Support training on multiplication techniques
Activity 1.4.2 Conduct annual census and certify quality of material issued at nursery level
Activity 1.4.3 Build capacity for tissue culture
1.4.3.1 Establish and strengthen tissue culture laboratories
1.4.3.2 Capacity building for researchers and technicians in plant breeding and plant health
Output 2. Awareness and publicity of the impact of cassava diseases, appropriate responses and possible coping strategies at all levels strengthened
Activity 2.1 Develop a communication strategy
Activity 2.2 Develop publicity materials suitable for different segments of the community and cassava commodity chain
Activity 2.3 Institute deliberate massive awareness campaigns in cassava growing districts
Activity 2.4 Enhance agricultural policy support for cassava
2.4.1 Prepare evidence based position document(s) on contribution of cassava to the national/district food basket
2.4.2 Conduct value chain analysis for the cassava sector
2.4.3 Develop strategies for investment in post harvest
2.4.4 Carry out advocacy and raising awareness for policy-makers


Year 1
Year 2
Year 3
Year 4
Year 5

3.8 Implementation plan (cont.)

Output/Activity
Output 3. Regional and national coordination strengthened
Activity 3.1 Update stakeholder analysis
3.1.1 Organize a stand-off stakeholder meeting
Activity 3.2 Support the setting up of appropriate arrangements for country coordination mechanisms for cassava related issues by the governments involved
Activity 3.3 Establish a new form for coordination of FAO/ASARECA/CRS/IITA work plans at regional level
Output 4. Farmer knowledge and skills on cassava production including pest and disease management aspects strengthened
Activity 4.1 Review the support needs of extension delivery services to improve services relating to cassava pests and diseases
4.1.1 Equipping existing extension staff with necessary tools, capacities and facilitation
4.1.2 Take stock of civil society presence and capacities and identify potential implementing institutions based on set criteria
4.1.3 Identification of community based facilitators
4.1.4 Review of practices to build synergies
Activity 4.2 Develop training material
4.2.1 Establish a baseline survey of practices and document sound coping strategies
4.2.2 Collate existing training material for review and adaptation to a comprehensive cassava integrated crop management curriculum
4.2.3 Develop assortments of training material tailored to different target groups
Activity 4.3 Build staff competence
4.3.1 Establishment of mobile teams of core experts that will conduct training at National and district levels
4.3.2 Train an adequate critical mass of facilitators and strengthen backstopping through tailored training of trainers' courses
Activity 4.4 Empower farmers through large-scale rapid Farmer Field School programme
4.4.1 Establish and formalize identified farmer groups / Farmers Field Schools
4.4.2 Conduct season-long training in affected catchments
Output 5. Disease management improved
Activity 5.1 Discourage movement of vegetative material
5.1.1 Identify pyhtosanitary risks related to CBSD, CMD, etc.
5.1.2 Strengthen plant quarantine and inspection services
5.1.3 Set up mechanisms at border posts to exchange material from uncertified sources for clean ones
Activity 5.2 Support to disease surveillance activities


Year 1
Year 2
Year 3
Year 4
Year 5

A tarpaulin with peeled cassava drying under the sun in the Democratic Republic of the Congo

Credit: FAO/A. Proto