

FAO and partners launch the ‘Cassava diseases in central, eastern and southern Africa’ (CaCESA) programme framework (November, 2009)

FAO has prepared a new 15 country, five year programme framework for addressing cassava diseases in central, eastern and southern africa – the framework provides a road map for projects in five major areas (wide release of new/improved cassava varieties; communication; coordination; farmer education; and surveillance).



(A healthy cassava plant (left), and one affected by cassava mosaic virus (right))

The problem

Cassava is an important staple crop throughout the world. In sub-Saharan Africa, more than 70 million people depend on cassava. For these people, the crop is vital for food security and income generation.

But production continues to be threatened by the spread of cassava diseases with immediate and far-reaching impacts on food supply in the region:

- The latest strain of cassava mosaic virus (CMV) emerged in Uganda in 1997 and has since spread throughout the Great Lakes region, devastating cassava production. Plants are visibly wilted, discoloured and stunted. Yield loss has been reported up to 80%. The disease is spread by an insect vector (the whitefly *Bemisia tabaci*) and through infected planting material. According to researchers, there has been a significant

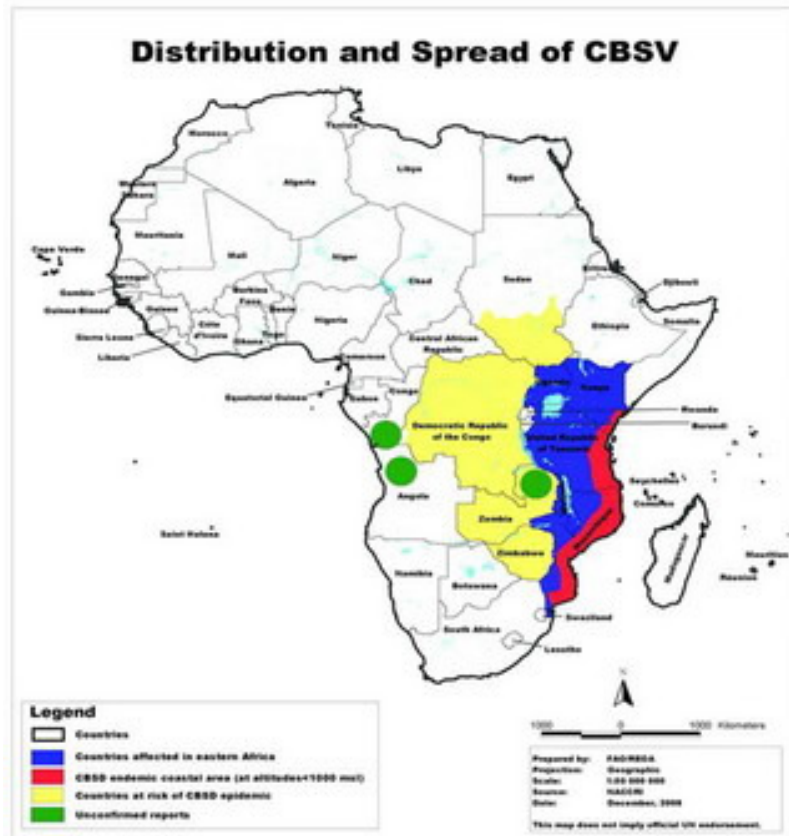
increase in the density of whitefly populations in recent years causing considerable damage to plants, as well as transmitting the disease.

- Cassava brown streak virus (CBSV) was previously known only in lowland and coastal East Africa (below 800m sea level) and along the shore of Lake Malawi. Since 2004, there have been worrying reports of CBSV moving inland and at higher altitudes in Uganda, western Kenya and northwestern Tanzania. Symptoms are seen on leaves, stems and roots that are rendered unusable. The late appearance of definitive signs of root damage does not allow for the early positive identification of the disease, making early removal of infected plants and reduction of disease spread difficult. Yield loss can be close to total in affected fields. Similar to CMV, distribution of infected planting material is thought to be a major factor in disease spread.



(Cassava brown streak virus affected root) Photo © M. O. Akoroda

Several international organisations and partnerships are working to restore cassava production systems, particularly among the Great Lakes countries of East Africa. FAO, with EU support, is active in the multiplication and distribution of clean (disease-free) re-planting materials. In this, the Organisation is collaborating closely with the Great Lakes Cassava Initiative (funded by the Bill and Melinda Gates Foundation); other initiatives are implemented by the Association for Scientific and Agricultural Research in Eastern and Central Africa (ASARECA), and by the Common Market in Eastern and Southern Africa.



(Distribution of cassava brown streak virus in eastern, central and southern Africa in 2008)

Source: Adapted by FAO from various IITA reports.

An improved, regional coordinated response

In the first half of 2009, FAO conducted a regional review of current efforts to combat cassava diseases. The review identified a number of underlying causes in the spread of diseases in the region, including: weakness in farmer education and information transfer; lack of institutional capacity on the part of government, specifically plant health and extension services; and technical challenges in disease identification and the development, release and multiplication of new varieties.

The review suggested that the large scale replacement of susceptible varieties with tolerant or resistant varieties – the principal response to disease – may reduce the diversity of varieties grown over large areas, and render the cassava production system more susceptible to **potential** or emerging pest or disease outbreaks. It also stressed the need to support the resilience of cassava production systems at the local (community) level.

A more holistic approach would improve the effectiveness of the response, including farmer education and their involvement in the selection of new varieties, improved communication and national coordination.

The new programme

The result of this review is the **CaCESA framework**. CaCESA targets 15 countries in central, eastern and southern Africa with significant production of cassava (notably Burundi, Congo, Democratic Republic of the Congo, Kenya, Rwanda, Tanzania, Uganda, Angola, Central African Republic, Gabon, Malawi, Mozambique, Sudan, Zambia and Zimbabwe), outlining work streams for activities over a five year period (2010-2015).

The **overall goal** of the CaCESA framework is to assure food and income security for farmers through monitoring and better control and management of pests and diseases.

This will be achieved through five main **outputs** that address the challenges facing cassava production identified in the review, including:

- putting systems in place to supply clean planting material to farmers from disease tolerant/resistant varieties;
- sensitizing farmers, frontline extension agents and policy makers about the impact of cassava diseases, appropriate responses and possible coping strategies;
- strengthening national and regional coordination between all those involved in cassava disease control;
- promoting better cassava growing, processing and conservation practices among farmers; and,
- improving disease management in the region, specifically the need for an operational early warning system to gather disease data locally and ensure high quality advice to farmers.

The CaCESA framework helps organise ongoing and future FAO activities - whether from an emergency, rehabilitation or development perspective – to follow a common roadmap to strengthening the resilience of vulnerable cassava smallholders in the region.