

Global Cassava Partnership for the 21st Century

Official Bellagio Conference Statement – May 29th 2013

This statement summarizes the outcomes of the Strategic Meeting of the Global Cassava Partnership for the 21st Century held in Bellagio, Italy, 6-10 May 2013

Thirty prominent agricultural scientists and development specialists from around the world (GCP21 partners) assembled for four days in Bellagio, Italy, to develop a plan of action to arrest the spread of the deadly Cassava Brown Streak Disease (CBSD) in Africa; to develop coherent intervention programs to limit the negative impact of brown streak disease and cassava mosaic disease (CMD) in Africa; and to build the human resource capacity and knowledge base to prevent the global spread of these deadly plant diseases.

These diseases present urgent challenges that call for 'game changing' agricultural technologies.

Cassava is the fourth most important source of calories in the tropics, consumed by over 700 million people on a daily basis in Africa, Asia, and Latin America, and cultivated mainly on marginal lands by smallholders. In Asia and Latin America, it also serves as a livestock feed, an industrial input and a source of fuel. In Africa, which represents roughly half of world cassava production but where 90% is used for food, cassava is an inexpensive and essential part of the diet for the poor. Cassava is known to be resilient to rising temperatures and responds well to increases in atmospheric carbon dioxide, making it one of the most important failsafe food crops an African farmer can plant.

The participants at the meeting in Bellagio, and many others, believe that cassava is an industrial crop of the future in Africa, with the potential to generate income for poor farmers and a huge number of jobs. But CBSD and CMD threaten both food supplies and the crop's industrial potential.

Despite the fact that CMD has been affecting cassava in Africa for more than 100 years, cassava scientists decided to meet now because CBSD is causing devastating additional losses for millions of farmers.

First reported in 1935 in Tanzania, CBSD was for decades confined to coastal East Africa. Devastating new outbreaks were first reported from higher altitude and inland areas of Uganda in 2004, however, and there has been rapid subsequent spread to neighbouring parts of Tanzania and Kenya, as well as westwards into Rwanda, Burundi and eastern Democratic Republic of Congo (DRC). In many of these areas, it has now become the most important factor limiting cassava production. While it is characterized by moderate leaf and stem symptoms, its effect below ground is dramatic, often with extensive rotting of the roots, sometimes leading to a total loss of the harvest.

Both diseases are caused by viruses and transmitted by small insect called whiteflies. New, super-abundant whiteflies have emerged in Uganda, spreading south and west, and are now present as far south as Zambia and as far west as Cameroon. The diseases are also spread by stem cuttings taken from infected plants, The international movement of these cuttings is increasing rapidly – within and beyond Africa – the diseases could spread to the rest of Africa and, possibly, the rest of the cassava-producing world. If CBSD reaches Nigeria – the world's biggest producer and consumer of cassava – it will cause a human catastrophe of unforeseen magnitude; if it reaches Thailand or India it will jeopardize economic sectors worth several billion dollars a year.

The second disease, CMD, is present in all cassava growing countries there. It is estimated that at least 30% (45 million tons) of the continent's cassava crop is lost each year to the disease. A CMD pandemic triggered by a new recombinant virus and by the explosion of the whitefly populations occurred in Uganda in the 1990s and for years completely suppressed cassava production in the region.

Overall, the losses caused by these two diseases pose a threat to the food security and livelihoods of 135 million people in East Africa alone, and the 300 million-or-so cassava consumers in Africa as a whole. They constitute a

crisis of enormous proportions with the potential to unleash severe human suffering. With the continued spread of the diseases, the prospect of cascading repercussions on the lives and livelihoods of millions more prompted GCP21 partners to convene for urgent action.

The GCP21 participants meeting in Bellagio, representing 19 different international and national organizations, assembled to catalyze action, organize African and global cassava stakeholders to identify critical gaps in the science and technology of cassava production, and mobilize human and financial resources to address the challenges presented by these cassava diseases. The scientists reviewed and recognized the impressive progress made in the last 20 years, particularly in relation to the importance of cassava genetic diversity and varietal resistance as core components of the arsenal of disease control mechanisms.

This statement announces a set of measures agreed on by GCP21 participants for taking immediate, medium and long term actions against CBSD and CMD. If these measures are applied very quickly, we believe that the spread of CBSD can be contained to East Africa, that the impact of CMD can be substantially decreased and the risk of their spread to the rest of the world could be dramatically reduced.

The priorities that have been outlined are as follows:

Priority #1: Contain CBSD in East Africa and prevent its spread in the rest of the African continent through the following interventions:

- 1- Raising awareness of the risks of inter-country exchange of cassava planting material; at all levels from policy makers to farmers,
- 2- Mounting country-level surveillance and monitoring networks to detect “super-abundant” whiteflies and the CBSD using harmonized methodologies.
- 3- Introduce intensive whiteflies control measures and the immediate eradication of CBSD infected plants when detected in new territories.
- 4- Introducing the best CBSD tolerant cassava cultivars from East Africa to West Africa to be deployed immediately after identifying the presence of CBSD in central and west African countries, until resistant cultivars have been developed,
- 5- Educating high-level policy makers to support the initiatives for establishing national task forces for the monitoring and control of CBSD and super-abundant whiteflies.

Priority #2: Eliminate or decrease the impact of both CBSD and CMD through the following interventions:

- 1- Prioritize target zones for intervention based on existing data and new surveillance information,
- 2- Promote the establishment of seed systems involving public and private sectors and local communities for virus-free propagation of resistant cassava material,
- 3- Develop and multiply farmer-preferred cassava cultivars resistant to all viruses and whiteflies,
- 4- Develop and implement whitefly management using biological control, IPM and rational chemical use for clean seed sites,
- 5- Establish disease monitoring systems to track its movement and effectiveness of control measures.

Priority #3: Prevent the spread of whiteflies and cassava viruses globally through the following interventions:

- 1- Strengthen quarantine controls on inter-continental movement of cassava planting material,
- 2- Update and distribute guidelines for safe movement of cassava cultivars,
- 3- Raise awareness of the risks of inter-continental movement of cassava cultivars throughout the value chain and including the policy makers,
- 4- Strengthen capacities of national plant protection organizations in Asia, Africa, and South America.
- 5- Develop pre-emptive breeding for CMD and CBSD in Latin America and Asia.

These priorities will be used to design a road map, which will be the basis for an international action plan to reduce the impact and spread of the deadly CBSD as well as CMD, and build the knowledge and technical capacity to prevent their global spread.

GCP21 members also plans to develop appropriate communications to increase the flow of information and knowledge that will help control these devastating diseases, and are committed to increasing membership of the coalition to include many more regional and national partners so as to have the greatest possible impact.

The road map and action plan will include further details and will be published and made available to the cassava community at large in July 2013. African ownership of these plans will be required for success, and we hope to achieve this through documentation and meetings in all cassava producing countries of Africa, as well as with strong commitment and funding from the international donor community. If successfully implemented, these plans will help feeding hundreds of millions of people, alleviate poverty and contribute to the creation of potentially millions of jobs.

Thank you for your interest and support,

Claude Fauquet, GCP21 Director, on behalf of GCP21

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This statement is endorsed by participants of the Strategic Meeting of the Global Cassava Partnership for the 21st Century held in Bellagio, Italy, 6-10 May 2013:

International Center for Tropical Agriculture (CIAT), Colombia

International Institute for Tropical Agriculture (IITA), Nigeria

CGIAR Research Program on Roots, Tubers and Bananas (RTB), Peru

CGIAR Fund Office, USA

Food and Agriculture Organization of the United Nations (FAO), Italy

International Fund for Agricultural Development (IFAD), Italy

Catholic Relief Services (CRS), USA

Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH (DSMZ), Germany

Institute of Resources Assessment (IRA), Tanzania

Kenya Agricultural Research Institute (KARI), Kenya

The University of Nairobi (UoN), Kenya

National Root Crop Research Institute (NRCRI), Nigeria

Natural Resources Institute (NRI), UK

Tel Aviv University, (TAU), Israel

The following donor organizations actively participated to the meeting of the Global Cassava Partnership for the 21st Century, and support the decisions taken during the meeting and mentioned in the present Press Release.

The World Bank, USA

The African Development Bank (AfDB), Tunisia

United States Agency for International Development (USAID), USA

Bill & Melinda Gates Foundation, USA

Syngenta Foundation for Sustainable Agriculture, Switzerland

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