

PREFACE

The Centro Internacional de Agricultura Tropical (CIAT) was established in Cali, Colombia, by the Rockefeller and Ford Foundations in 1969, following the initial success of the previously established international agricultural research centers, IRRI and CIMMYT, which had led to a “Green Revolution” in rice and wheat. CIAT was set up in Latin America, and the International Institute for Tropical Agriculture (IITA) in Nigeria, Africa, mainly to enhance the agricultural development of other food crops important in those two continents. As such, CIAT focused initially on a wide range of crops and animal production systems, but later narrowed these down to cassava (*Manihot esculenta* Crantz), beans (*Phaseolus vulgaris*), tropical forages and rice (for Latin America). In the 1980s this was further expanded to include a resources management program to improve the sustainability of crop and livestock production systems in fragile environments, especially in hillsides.

The CIAT Cassava Program was established in 1972 by assembling a multi-disciplinary team of scientists to work on all aspects of cassava research, including physiology, breeding, agronomy, plant nutrition, diseases, pests, utilization and economics. Being located in the center of origin of cassava and having received the world mandate for basic research on all aspects of the crop, CIAT collected a large number of cassava local varieties, mainly from Colombia, Brazil and other countries in Latin America. Once tissue culture techniques were fully developed, the Latin American cassava germplasm collection was complemented with local varieties from Asia, mainly from Indonesia, Malaysia and the Philippines. The CIAT cassava germplasm collection, held in trust for FAO, now contains over 6000 accessions, including about 300 from Asia.

Collaboration between the CIAT Cassava Program and Asian national programs started in 1975, when the first of several groups of Thai researchers arrived in Colombia for an extended period of training at CIAT in all aspects of cassava research. This was followed by researchers from other Asian countries, such as Malaysia, Indonesia, the Philippines, India and Sri Lanka, who came for individual training in specific disciplines or to participate in one-month intensive cassava production courses, which were held in 1978, 1980, 1985 and 1989. Altogether, 153 cassava researchers from Asia received training in various disciplines at CIAT from 1975 to 2000. This training not only provided Asian researchers with knowledge about the crop, but was also an opportunity to make friends with colleagues in other countries and to strengthen the bond between CIAT cassava researchers and colleagues in the various national programs in Asia. Thus, when the CIAT Regional Office was established in 1983 in Bangkok, Thailand, the CIAT cassava breeder, Kazuo Kawano, could start working immediately with a number of cassava breeders in different countries who had previously received training in Colombia. Similarly, my work in the area of cassava agronomy and soil management, which started in Asia in 1986, has always been conducted in close collaboration with cassava researchers in national programs. Initially this was mainly in Thailand, Indonesia, Malaysia, Philippines, Sri Lanka and India, but was extended in the late 1980s to include Vietnam and China. Only recently, this was further extended to include Laos, Cambodia and East Timor. These countries have all become part of the Asian Cassava Research Network, which has been coordinated by the CIAT Cassava Program in Asia.

In order to document the cassava research that had previously been conducted by scientists in many different countries in Asia and to discuss future collaboration, CIAT organized in 1984 the first Regional Cassava Workshop, which was held in Bangkok, Thailand. This was followed by similar workshops held in Rayong, Thailand in 1987; in Malang, Indonesia in 1990; in Trivandrum, India in 1993; in Danzhou, China in 1996 and in Ho Chi Minh city, Vietnam in early 2000. The Proceedings of these Workshops have been published and provide an important historical record of the progress made in cassava research and development in Asia during the past 25-35 years. The 7th Regional Cassava Workshop was held in Bangkok, Thailand in Oct/Nov 2002. Publication of the Proceedings of that Workshop has been delayed, but this book will hopefully soon be on the shelves of all cassava researchers in Asia, to provide important information about the latest developments and progress in cassava research in this part of the world.

Unlike the previous workshops, the 7th Workshop not only dealt with cassava breeding and agronomy research, as well as the progress made in the Nippon Foundation-funded FPR projects in China, Thailand and Vietnam, but also included the recent research conducted in various new topics, such as the use of cassava roots and leaves for animal feeding, the latest developments in cassava processing into starch and many starch-derived products, as well as the development of cassava growth models.

During the past decade important progress has been made, especially in the development, dissemination and adoption by farmers of new cassava varieties and improved cultural practices. Since the early 1980s over 60 cassava varieties have been released in seven countries in Asia, of which at least 45 varieties had been derived with some germplasm from Latin America. It is estimated that these new varieties are now grown in slightly over 1.5 million ha or 43% of the cassava growing area in Asia. This, and the widespread adoption of better cultural practices, including fertilization and soil conservation practices, have increased cassava yields in Asia from 12.93 t/ha in 1994 to 17.16 t/ha in 2004, corresponding to an annual rate of increase of about 3%. This increased yield, as well as the higher starch content of the roots, is annually providing cassava farmers in Asia with at least 400 million US dollars additional gross income.

This has been achieved through the close collaboration between the national cassava research and extension organizations in each country and among countries, as well as with the CIAT Cassava Program, both in Asia and in Colombia. During the past twelve years this net-working among countries, and especially the implementation of the Farmer Participatory Research Project, was only possible through the generous financial support from the Nippon Foundation in Tokyo, Japan. I want to take this opportunity to thank the Nippon Foundation for their continuous and generous support in this joint endeavor to provide a better future for cassava producers and consumers in Asia.

R.H. Howeler
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