

## **DD19: Alves<sup>1</sup>, Alfredo; Sampaio<sup>2</sup>, Maria Jose; and Costa<sup>3</sup>, Ivo**

1) Embrapa Cassava & Tropical Fruits (CNPMPF), Cruz das Almas, Bahia, Brazil; 2) Embrapa Headquarters, Brasilia, DF, Brazil; 3) Embrapa Genetic Resources & Biotechnology (CENARGEN), Brasilia, DF, Brazil.

### **Cassava Biodiversity: Major Challenges**

The final declaration of the Conference on World Food Security: Challenges of Climate Change and Bioenergy, June/2008, strongly affirmed the need for investing in agriculture. This renewed focus on agriculture is very much needed and long overdue. Cassava is one important element in the present debate about agriculture, food, energy and climate change. The crop is a valuable source of carbohydrates, a staple in several developing nations in Africa, South America and Asia, and has the highest production potential of calories per hectare per day among tropical crops. It has also been used to develop new products for industry applications and recently, as an alternative feedstock for biofuel production in some countries. Cassava is a shrubby species originated in the American continent approximately 5000 to 7000 years ago in several different countries. The large number of cultivars represented in the main germplasm collections of several research centers indicates the high genetic diversity of this species. The gene pool is composed of cultivated species, which has been *ex-situ* preserved, and wild relatives, with around 100 species, many of them endangered, and very few preserved in genebanks. The major challenges in the near future: improve funding for research and capacity building in developing countries to allow the utilization of the crops full potential as food, feed and energy supplier; implement the Multilateral System of the FAO International Treaty for facilitated access, including for *Manihot esculenta*; move newly collected germplasm around the world taking into consideration countries of origin rights to benefit sharing; move basic germplasm and elite materials around taking into consideration phytosanitary restrictions and its related costs; improve conservation strategies, both *in situ* and *ex situ*, to maintain genetic material for future generations and most of all, distribute the benefits of cassava to the resource poor.