collaborators for germplasm exchange, under article 391 of the Andean Pact.

Under the LAMP, 500 Bolivian accessions were evaluated. Since then, accession evaluation has continued and passport and characterization data have been published in the catalog. A core collection has been identified using the available data. Races Hualtaco and Huilcaparu have been evaluated in farmers' fields predominantly in the Cochabamba valley. These races are known to be drought tolerant and farmers prefer their grain types. CIFP's first year racial accessions and new collections from the cooperating farmers in the valley were grown in farmers' fields, and the best 20% entries were selected using a participatory approach with the farmers. The original seed accessions of the best 20% and the balanced seed bulk of them as the male parent were planted in half-sib recombination plots in both the farmers' plots and in Pairumani. The seed lot was mixed from both recombination plots and constituted improved basic seed for the farmers to grow in the third year. The improved seed of the land races should help the farmers to cultivate them, thus maintaining maize germplasm on-farm in situ.

Brazil

Flavia Franca Teixeira and Ramiro Vilela de Andrade

The active germplasm bank at the Centro Nacional de Pesquisa de Milho e Sorgo (EMBRAPA) conserves 3,886 maize accessions. The collection consists of landraces (82%), composites (5%), improved germplasm (6%), and introductions from other countries (7%). Current core accessions, of which there are about 353, are designated according to geographical adaptation and grain type. Further refinement of the core collection will be carried out. The seed is stored at 5-6°C with RH of 25-30%. Regeneration is initiated when the seed germination is below 80%. Germination of the collection has been monitored every five years. Every year, some 250 accessions are regenerated, with 100 ears that represent the accession. There are three regeneration sites: Sete lagoas (wet sub tropical/tropical climate, Mato Grosso [MG]), Janauba (dry sub tropical climate, Minas Gerais), and Londrina (southern temperate region in Parana [PR]). The seed exchange policies have to meet the regulations of the National Genetic Resources Council.

The core collection is actively evaluated for phosphorous use efficiency, aluminum tolerance, biotic stresses, and combining ability. Husk quality is also evaluated for those farmers' communities who use maize husks for manufacturing dolls, purses, baskets, etc. Prebreeding, using data from LAMP and GEM (germplasm enhancement of maize in the USA), has used the core collection for crossing with elite germplasm lines. Working with the Krahos Indian tribe, five races of maize from Xavantes have been returned to in situ collection sites, to preserve them within the local culture.

Chile

Gabriel Saavedra Del Real

In 1999, the Instituto Nacional de Investgaciónes Agropecuarias (INIA) created a maize breeding program to develop commercial hybrids of Choclero (green ear corn of the race Choclero). Since 1964, INIA's maize breeders have been working on development of varieties and hybrids. After 1990, private companies increased the development of hybrids of flint and dent grain types, and in the late 1990s INIA reduced their maize breeding research. Currently, 1,247 accessions are preserved in the active collection, including breeding lines recently added to the original collection. Landrace collections in Chile were assembled in 1953-1955 and 1981-82 (536 accessions). Chile's catalog of maize accessions was published in 1990. At La Platina experimental station an inventory is being gathered of the active collections that had been managed by the previous maize program. Data on seed amounts and viability are being updated. Active use of landrace germplasm, to increase genetic diversity for breeding Choclero grown extensively in Chile, is expected.