Complementary conservation and utilization of traditional crops in Ecuador

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Conservation and Development of Ancestral/Indigenous Genetic Resources: Challenges, Tools and Perspectives
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Traditional farming communities
Animals

Guinea pigs (cuyes)
Diversity of Native Crops

Maize
Grains and Vegetables

Amaranth

Chile pepper

Achojcha

Sambo

Quinoa
Roots and Tubers

Arracacha

Jicama

Mashua

Oca
Babaco
Cape gooseberry
Tree tomato
Passionfruit
Fruits
Babaco
Cape gooseberry
Beans

- Scarlet runner bean
- Lima bean
- Common bean
- Scarlet runner bean
Project Partners

- UNORCAC (Indigenous organization)
- INIAP-DENAREF (PGR unit, genebank)
- Bioversity International
- USDA-ARS
- Runa Tupari Native Travel

Funding 2002 - 2008

USDA-FAS PL480 Food for Progress
Complementary Conservation Objectives

- On-farm (*in situ*) conservation of crop genetic diversity
- *Ex situ* conservation of crop genetic diversity
- Conservation of associated cultural traditions, practices and indigenous knowledge
Development Objectives

• complementary income from native crops (tourism, crafts, micro-enterprises)
• revitalize ethnic identity and knowledge
• improve food security and nutrition
• improve education in agrobiodiversity
Project Components

- Conservation *ex situ* and *in situ* (on farm)
- Enhancing value of native crops
- Education in agrobiodiversity
- Agrotourism
Collection of samples for conservation in INIAP’s genebank

Samples of landraces and crop wild relatives were collected.
Conservation
On-farm

AGROBIODIVERSITY
ENRICHMENT
OF HOME GARDENS
SEED FAIRS: DISPLAY and EXCHANGE
Enhancing Value of Native Crops: Project’s Pilot Plant

Established on UNORCAC property in the town of Cotacachi

Use of native crops in non-traditional products
Pepper sauce (salsa)
Roasted squash seeds
Cape gooseberries – marmalade and dried
Education in Agrobiodiversity

- Development of Educational modules
- School Gardens in communities

Visits to diverse farms

Native Crop Nutrition Workshops

Reviving Vanishing Traditions

The Game of “Tortas”
Agrotourism

“Responsible travel to farming communities that promotes the conservation and use of agrobiodiversity in farmers’ fields while providing tangible benefits to local communities”

- Adds value to native crops and traditional farming practices
- Educates tourists about the connection between crop diversity, traditional farmers and farming systems
Rustic lodges on farms
Lasting Impacts -- 2016

- UNORCAC has incorporated promotion of native crops into its agricultural programs – working with 300 farmers to grow “at-risk” varieties
- Seed fairs occur regularly and are widely known
- Production plant:
  - new products have been developed
  - most successful products are dried cape gooseberries, blackberries and chile peppers.
  - 107 farms currently provide produce to plant
- Education modules on agrobiodiversity are used in schools. Students visit the ethnobotanic garden.
- Agrotourism – tourist visits to rural lodges and other agricultural sites continue to provide income to locals.
Questions? Contact: Karen.Williams@ars.usda.gov