Matching Seeds to Needs
Using informatics to select crop varieties adapted to future climates

Old varieties, new places

Information technology helps protect the livelihoods of women farmers

Climate change will affect food production (IPCC, 2007)

Africa and South/ Southeast Asia will become less suitable for growing key crops.

Farmers will need new crop varieties adapted to future climates.

Crops currently growing in climates similar to those projected to occur are likely to be pre-adapted.

Innovative information technology and genebank collections can help farmers adapt to climate change

Location coordinates of collection sites are proxies for suitable growing conditions.

Geographic Information Systems (GIS) reveal average or extreme temperatures, length of growing period and precipitation regime.

This information is matched to future projected climates to select seeds.

Matching Seeds to Needs: Papua New Guinea and Ethiopia

Women farmers will evaluate and test crop varieties identified using GIS and genebank collections on their farms:

Papua New Guinea: taro and sweet potato
Ethiopia: durum wheat and barley