

Matching Seeds to Needs

Using informatics to select crop varieties adapted to future climates

**Old varieties,
new places**

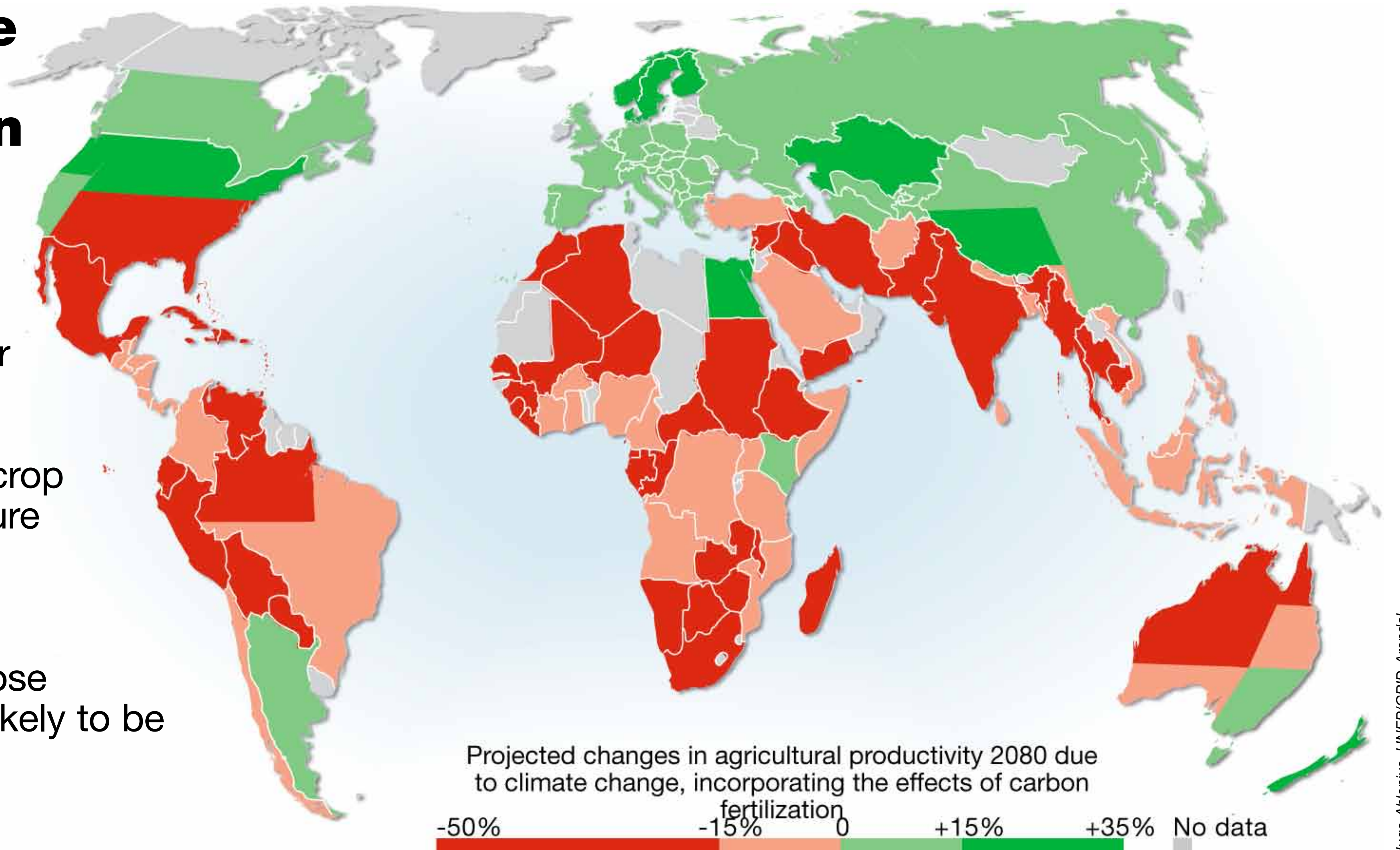
**Information
technology helps
protect the
livelihoods of
women farmers**

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.




Home Page Data Overview Geo-Maps Query

Region World

Select a view: Passport Information

Institute	Accession Number	Crop Name	Acquisition Site
USA029	PI 387142	Hordeum vulgare	
USA029	PI 386814	Hordeum vulgare	
USA029	PI 386459	Hordeum vulgare	
USA029	PI 386392	Hordeum vulgare	
USA029	PI 386376	Hordeum vulgare	
USA029	PI 383018	Hordeum vulgare	
USA029	PI 382990	Hordeum vulgare	
USA029	PI 382989	Hordeum vulgare	
USA029	PI 382920	Hordeum vulgare	
USA029	PI 382849	Hordeum vulgare	
USA029	PI 382841	Hordeum vulgare	
USA029	PI 382791	Hordeum vulgare	
USA029	PI 382776	Hordeum vulgare	
USA029	PI 382680	Hordeum vulgare	
USA029	PI 382565	Hordeum vulgare	
USA029	PI 382563	Hordeum vulgare	
USA029	PI 382559	Hordeum vulgare	
USA029	PI 382555	Hordeum vulgare	
USA029	PI 382554	Hordeum vulgare	
USA029	PI 382551	Hordeum vulgare	
USA029	PI 382548	Hordeum vulgare	

Home Page Data Overview Data Browser Geo-Maps Query

Reference number: 140287

Passport Information

Institute: National Small Grains Germplasm Research Facility- USDA-ARS
Accession Number: PI 382920
Taxonomy: Hordeum vulgare
Country of Origin: Ethiopia
Sample Status: Traditional cultivar/Landrace
Storage Type: Seed Collection
Duplicate: National Seed Storage Laboratory- USDA-ARS
Trust Status: Not In Trust Svalbard Status: Not In Svalbard MLS Status: Unknown Availability: Yes

Date: 1973/06/01

Altitude: 2516

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Max	7.5	10	9.4	9.3	10.2	9.8	8	7	5.5	3.8	2.8	2.2	7.43
Min	24.8	25.8	24.9	25.3	22	21.5	22.8	21.9	21.4	21.2	23.2	28.2	23.2
Mean	53	45	49	158	152	25	15	32	9	47.2			
Mean Temperature of Coldest Quarter	13.3												
Temp - min temp	15.6												

Passport (collecting sites)
Soils
Climate Temperature
Elevation Topography

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.

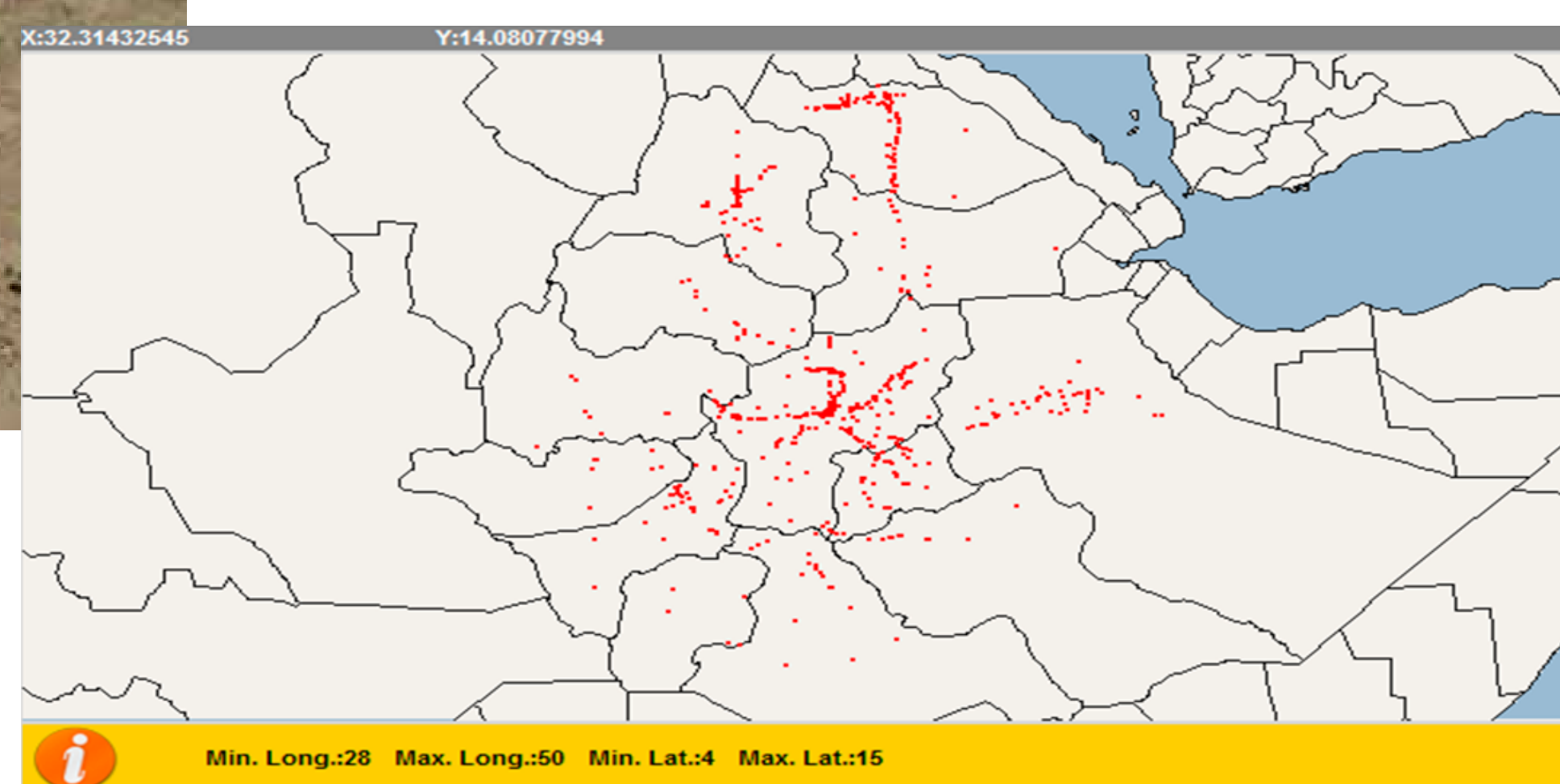
This information is matched to future projected climates to select seeds.

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



Coordinates of barley accessions in Ethiopia