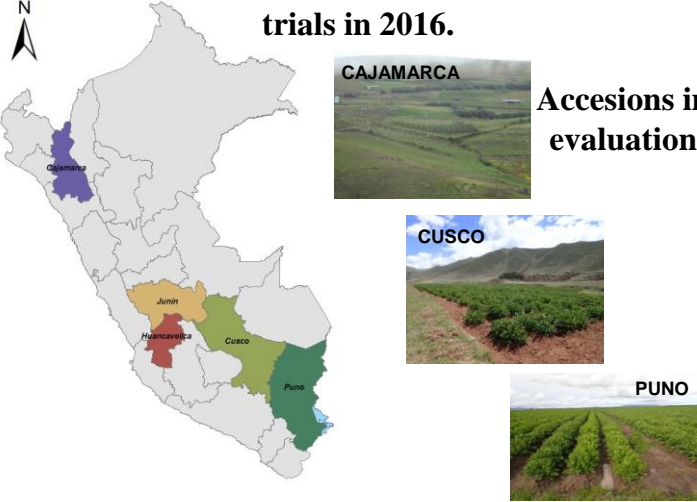
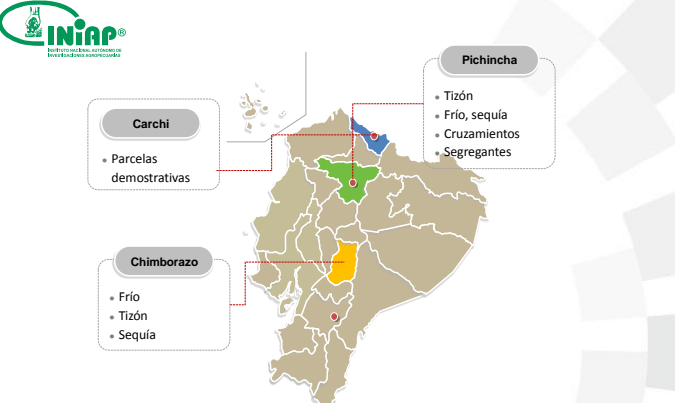


## Brief success stories on Project W3B-PR-05-Peru Marker-assisted selection for potato germplasm adapted to biotic and abiotic stresses caused by global climate change

### Areas selected in Peru for field trials in 2016.



**Accessions in evaluation**



### Areas selected in Ecuador for filed trials in 2016.


### Project intervention to community approach to obtain new potato varieties adapted and resilient in areas highly vulnerable to climate change

Potato (*Solanum tuberosum*) ranks as the world's third most important food crop after wheat and rice (maize is used predominantly as fodder) and provides a significant contribution to the global food supply. Particularly, potato plays a key role for food security and subsistence of Andean farmers. The aim of this project is to characterize cultivated and wild germplasm with respect to resistance and tolerance to different biotic and abiotic stresses and exploit it through the application of new breeding biotechnological tools, to obtain new potato varieties, adapted and resilient to the high threats of climate change, for sustainable agriculture.

Genomic studies offer the possibility to characterize germplasm efficiently at the molecular level. The detection of candidate genes for useful traits offers the possibility to apply them – after developing the corresponding markers – in marker assisted selection (MAS) to accelerate considerably breeding programmes, including participatory breeding by farmers.

A wide genetic and geographic diversity of about 350 accessions of native varieties, and advanced germplasm from Peru and Ecuador, with putative tolerances or resistances to abiotic and biotic stresses observed

### Field Day in Tulcan, Ecuador, to show varieties under evaluation. 2016.





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