

Agriculture and Climate Change - Adapting Crops to Increased Uncertainty (AGRI 2015)

**“Local knowledge of native potato (*Solanum spp*) for long-term monitoring on three Andean communities of Apurimac, Peru”**

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**Abstract**

Multiple drivers related to changes in climate and socio-cultural structure in the Peruvian Highland are of increasing importance for the loss of the biological diversity of potato landraces and related collective knowledge in their center of diversity. For example in the district of Haqaira, which is located in the province of Cotabambas, Apurimac, many young farmers abandon agriculture to work in the mines or migrate to search for more income attractive options in larger towns. The precise impact of these tendencies on agrobiodiversity has not been assessed and it remains difficult to establish timelines that reflect changes as no reference data exist that is useful for comparison. A cost efficient and easy applicable method to assess local crop diversity based on traditional names and establish a baseline for red-listing of landraces is the five cell analysis (FCA). In a case study, three communities in Haqaira – Pauchi, Queuñaapampa and Huancacalla Chico have been surveyed to determine the actual state of potato landrace, collective knowledge, potential threats of agrobiodiversity and to establish a long term monitoring system. It was registered by focus groups familiar (n=61). The results provide us information systematization of landraces of potatoes to prepare a master list that can be contrasted with genetic information. Based on farmer's perception in all the communities it was identified 42 landraces with 71 synonyms; 13 threatened landraces, 8 conservation dependant landraces and 3 no risk landraces. The methodologies used to contributing to data base for monitoring of landraces of potatoes should be applicable to other landscapes on similar conditions.

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