



The Academy Generates Solutions for Food and Nutrition Security in Colombia

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The McGill University of Canada and Universidad Nacional de Colombia developed a transdisciplinary project linking the social and natural sciences, to scale-up a technological innovation in order to contribute to food security and nutrition of the Colombian population and to promote social change.

Methods

The "More Nutritious Potatoes Project" selected three yellow potato varieties with higher nutritional content and better agronomical traits by participatory research with communities. We implemented a model to scale-up the new potato varieties and built scientific capabilities for Colombia working collaboratively in a transdisciplinary approach.

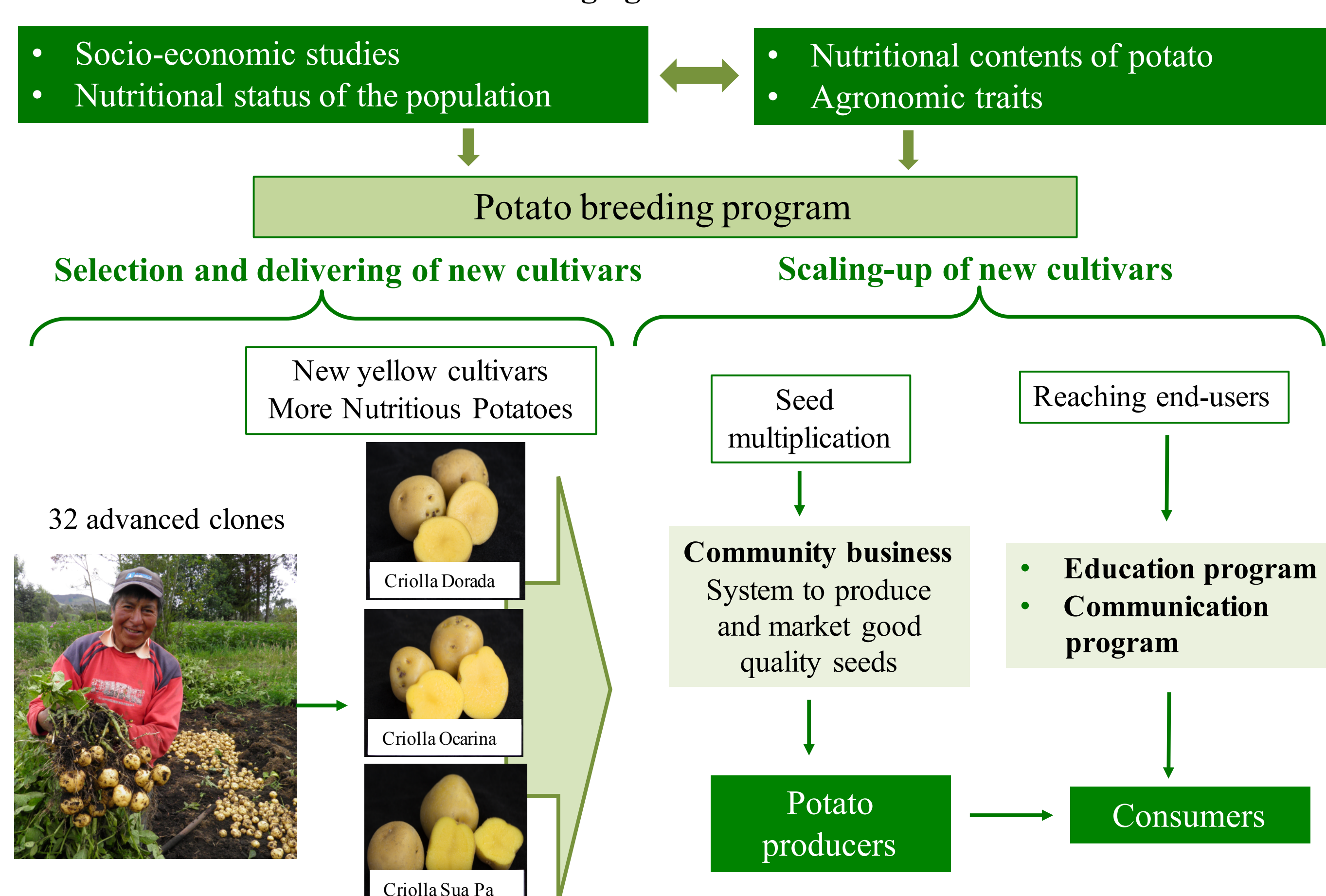
Academic programs involved:
Postgraduate academic programs in Gender Studies, Food Security and Nutrition, Agricultural Sciences and Rural Development

Training students in capabilities for leadership following holistic approaches about rural development, agriculture, nutrition, gender and social equity, public policies, and environmental protection.

Strategies to involve stakeholders

Transdisciplinary approach - Education for autonomy - Building synergies - Gender and social equity - Communication strategy

Participatory research for promoting social change Linking agriculture-nutrition



Exit strategy for sustainability

Building capabilities

Involving local and territorial government

Promoting pertinent public policies

Communication Strategy

Results

- Three potato varieties with:
 - Higher contents of iron, zinc, dietary fiber, protein and polyphenol compounds.
 - Higher resistant to the most devastating disease in this crop.
 - Double yield as compared to the most cultivated variety in Colombia.
 - More income to small-scale potato farmers (18%).
- The scaling project reached more than 6.5 million consumers.
- Seven seed potato producer organizations were empowered:
 - For producing good quality seed of more nutritious potatoes.
 - To improve the sustainability of cropping system.
 - To impact short market chains.

Results

- The diversity of the diet of the participants families increased.
- The children involved in an educational program of the project showed a significant progress of their ferritin levels in comparison with children that are outside of the program.
- Communities were empowered to influence public policy. Communities built Action Community Plans to impact public policies.
- The participation of women in organizations reached 45%.
- Scientific and professional capabilities for Canada and Colombia:
 - 17 students developed their thesis: four PhD students, nine MSc students, four undergraduate students.
 - Nine students performed internships in collaboration North-South

Reference

Mosquera Vásquez, T., Del Castillo, S., Gálvez, D.C. et al. (2017). Breeding differently: participatory selection and scaling up innovations in Colombia. Potato Research 60: 361–381
<https://doi.org/10.1007/s11540-018-9389-9>