

# **Students Involved in the Promotion of Food Security in Indigenous Communities**

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In spite of economic growth in the recent decades, indigenous communities in the Andes and the Amazon regions still live in disadvantaged conditions with regards to urban population. For example, vulnerability to food insecurity and malnutrition are up to 3 times higher in rural areas. Moreover, soil, climate and infrastructure conditions are not always ideal for crop production. In this scenario, organic agriculture based on the scientific discipline of agroecology is widely promoted as a system that contributes to the conservation of biodiversity, food diversity, the strengthening of farmers groups and an overall resilience to climate shock and other factors. This presentation will provide insight into two experiences of student involvement in academic activities with active participation of rural communities.

On the faculty of Agronomy college students meet and form research groups in different areas, allowing participants confronting opinions with others, enriching their learning and personal growth receiving personalized assistance from the professors in areas in which they do research.

**PROPAR: Student Research Group in Organic Production of Herbs and Vegetables**

PROPAR brings together students from different areas of the Faculty and deals with production; management and research of different crops organically by putting special emphasis on the association between vegetables and aromatic plants creating sustainable agro-ecosystems, with a vision on sustainable development, outreach, family farming and agroecology.

Trip extension and outreach to the community of Santa Rosa Rodríguez de Mendoza,  
Amazonas Peru

This Project is in conjunction with other student group (Soil Research Group) conducted where each specializing in their field of study activities.

In the village of Santa Rosa, food is basically consumption of tubers, beans and meat, so it is necessary to promote the consumption of food containing vitamins and minerals. In turn, our education needs to be involved in a reciprocal relationship with the farmer, knowing their reality, learning and trying to solve different problems; especially when

it comes from the small organic farming, where we can find several difficulties because of the minimal use of external inputs.

The main purposes of this activity was to recognize vegetables and their uses in the community, train farmers in handling vegetables, raise awareness of the nutritional value of vegetables and promote vegetable production and introducing different species that normally are not consumed in the zone. We are making plans to other activities in the region based on this first experience.

Points of understanding

*Socially sensitive:*

- Discussions with farmers, knowledge sharing, exposure alternatives to their specific problems.
- Promoting partnership between farmers and intradistrict cooperation.
- Promote the consumption of vegetables to improve nutrition.
- Promoting vegetable consumption and sale of excess.

*Linked to the environment:*

- Awareness that resources are depleted.

If the environment is affected one also has problems.

- Awareness floor care.
- Options to synthetic fertilizers.
- Training in organic fertilizer.
- Rescue of biodiversity

*Ecological sustainability of the production system:*

- No dependence on external inputs.
- Organic fertilizers, ethological control of pests and diseases.
- Greater diversity in the agro ecosystem to address monoculture: biogardens + agroforestry

Some of the specific activities carried out in the community was the visit to different family orchards and schools in order to gather information on the state in which they are to supervise and so continuous monitoring of the organization as an association of farmers producer of vegetables and seeds used as an input in production in different areas as well as the flow of buying and selling vegetables, is directed towards that town, who and how much. During the interaction with farmers we were able to realize the consumption and use of resources for food use of biodiversity in the region.

Peasant-cook alliance: promoting sustainable development in rural communities by integrating agronomy and culinary students in the Andes region

AGROECO is a research and action peasant for families in Cusco and Cajamarca in Peru and part of Canadian research program for food security (CIFSRF), funded by the

International Development Research Centre (IDRC) and the Canadian International Development Agency (CIDA).

The main objective of the project is to enhance food security of rural families to develop a more intense and integrated research and action system, including advanced methods of conservation and collective management of Andean roots and tubers and promotion of vegetables and native fruits, small size and high nutritional value. National Agrarian University is one of the entities that implement this project.

Points of understanding

#### *Agrobiodiversity*

- Organic production and seed potatoes native (in field schools, gardens biodiversity and rustic stores)
- Horticulture organized greenhouses in Rural and open field
- Improvement of postharvest handling and generation of value added in the center of services

#### *Strengthening organizational*

- Promotion of grassroots organizations to through marketing factor action
- Regional Associations in capacity managing the collective mark
- Strengthening leadership skills and management

#### *Access to markets*

- Alliance chef - farmer
- Participatory Guarantee System and planning supply
- Development of marketing channels (ecoferias, hotels and restaurants, point sales)

*In order to improve food security through increases in family incomes.*

The project is carried out in the provinces of Quispicanchis and Calca in Cusco, where farmers are in the process to become organic producers, were instructed in learning new recipes to enhance their nourishment: the ecohamburgers, created by the students of the Pachacutec Cooking Institute (ICP); using inputs that farmers considered disposable, they got to add a tasty and nutritious dish; while agronomy students (UNALM) who complete support network chefs teaching the proper use of vegetables and the correct way to fertilize crops organically. Internships are financed by AGROECO project and the corporation "Acurio Restaurantes". The aim is to influence the gastronomic boom that is widespread in Peru so it may provide more and more benefits to smallholders, who are the providers of a large diversity of inputs, traditions and knowledge.

The students participated in training in preparation of Organic fertilizers and biocides, so the producers know how to manage their production organically, especially inside the greenhouses, in order to share knowledge to the farmers on how to manage these structures by themselves.

During the time we spent in the walking collect of native plants with the farmers who have a myriad of uses for them, both food and medicine. Thus it begins to value the richness of local biodiversity that is widespread in our country.

It was also time to go to the kitchen of farmers, not only to share with them a dish generously offered us, but also to share knowledge on the preparation and processing of food with cooking workshops, improving the presentation of dishes making jams carrot, licorice and elderberry, and learning to use inputs that we did not know before.

Finally, Sundays were in Ecoferia 'Fruits of the Earth' in Calca, where we promote the participation and assistance to farmers; and consumers within the city. He helped organize the 'Contest Peasant Food - Organic', both in the media (radio, posters and flyers) and find that ladies use natives and traditional inputs in the preparation of their dishes, such as wild ferns ('ullpu'), coal corn, mushrooms mountain, etc. were also developed for recipes with local products (Chicchipa, native grains, wild turnip, and common vegetables).

As a result of this experience we believe that it should emphasize and prioritize strengthening producer organizations to actively compete with conventional products market. Much of this, it means that farmers see a direct and constant economic benefit, in organic vegetable production and selling in fairs besides, nutritional improvement that this will generate in their children. Otherwise they will prefer to continue sowing what they have always cultivated, prioritizing consumption and only selling their surplus.

We note that communities do not consume vegetables (or recently are learning to do in places like Sayhua and Hannac Chuquibamba), basing their carb food obtained from their potatoes and cereals, with some meats and 'asnapa'. This generates a deficiency of vitamins and minerals we suggest to continue cooking workshops, teaching not only how to eat vegetables new to them, but emphasizing the nutritional value they have both native as of introduced for the development and health of their children. This goes hand good handling practices and health; ensuring good organization will have better communication with each association of organic producers to see how to bring their products in group to said processing plant, and may also sell them form group. And to be sustainable, must take these new activities the same self that have to do what they always do; they transform their products.

In conclusion, we have learned that the most important for rural development and Participatory research is human labor, intercultural communication, interdisciplinary and interagency, and finding the farmer organization. Technical, agronomic and culinary part is not enough to provide solutions to social problems.

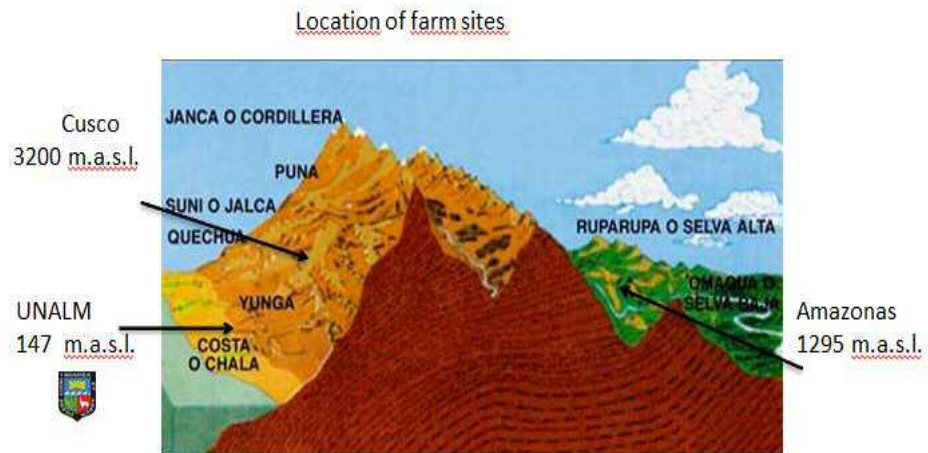
Doing these kind of activities, as students, they get directly involved in the real problems in rural areas, are able to transmit modern knowledge and learn from

traditional farmers and rural societies, and this becomes an essential component of our education, while contributing, although in a small manner, to improve the quality of life in rural areas.

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Images:



**Transverse división of Peru, we direct our ecological practices in these three different regions of our territory in different climate conditions, geomorphology and altitude.**



**Students working on the implementation of family gardens- Amazonas, Peru**



**Greenhouse's Outside view - Cusco, Peru**



**Inside View -Greenhouse with their respective irrigation system- Cusco, Peru**



**Sunday fairs, culinary students presented their first dishes made with local products and also with inputs that farmers consider disposable- Cusco, Peru.**



**Cook Farmer Alliance Cusco, Peru**