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► **To cite this version:**

Edith Fernandez-Baca, María Paz Montoya, Natalia Yañez. INNOVATION FOR POVERTY REDUCTION WITH INCLUSION IN THE ANDEAN REGION. Panorama Andino - Learning from case studies on locally promoted innovation experiences. Emilie COUDEL, Hubert DEVAUTOUR, Christophe-Toussaint SOULARD, Bernard HUBERT. ISDA 2010, Jun 2010, Montpellier, France. Cirad-Inra-SupAgro, 11 p., 2010. <hal-00523493>

**HAL Id: hal-00523493**

**<https://hal.archives-ouvertes.fr/hal-00523493>**

Submitted on 5 Oct 2010

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## *INNOVATION FOR POVERTY REDUCTION WITH INCLUSION IN THE ANDEAN REGION*

Panorama Andino - Learning from case studies on locally promoted innovation experiences

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**Abstract** — Agricultural systems in the Andes are going through significant amounts of transformation and are being affected by new dynamics (i.e. globalization, climate change, migration, urbanization). In this context, local communities are developing creative responses and adjustments to these changes through the innovation of agricultural systems. What is the true innovation system that exists in the region? This question recognizes that there is a new reality evolving within innovation systems in the region in response to these new dynamics. Searching to answer this question, the Consortium for the Sustainable Development of the Andes Eco-Region, CONDESAN, is conducting a regional study and synthesis process on innovation of agricultural systems in the Andes, denominated Panorama Andino. The objective of this study is to identify and learn about innovation processes that have had an effect over socio-economic wellbeing of rural populations (poverty reduction with inclusion). The study and synthesis process will permit a deeper knowledge about the practices followed by people who innovate more and what do they do differently from others to produce something new. We expect to learn more about how existing environments (natural, social, cultural, human, political, economical) exercise influence over the occurrence or non-occurrence of an innovation process. Additionally, through mapping all the actors within the innovation processes with their links and synergies, we hope to better understand what actors participate in processes that result in poverty reduction with inclusion. Finally, we expect to identify the role agricultural policies in the region have on innovation systems. We want to understand if policies are encouraging, are becoming barriers to innovation or, are simply not working. Recommendations on how to move forward with innovation at regional level will come out of this analysis.

**Key words** : Agricultural systems, Andes, inclusion, innovation systems framework

## INTRODUCTION

Innovation systems help to create knowledge, provide access to knowledge, share knowledge, and foster learning. *The innovation systems concept embraces not only the science suppliers but the totality and interaction of actors involved in innovation.* In other words, the concept extends beyond the creation of knowledge to encompass the factors affecting demand for and use of knowledge in novel and useful ways (Rajalahti et al. 2008)<sup>1</sup>. Rural innovation systems is a new, broad approach aimed at the systemic understanding and facilitation of the interaction among all factors and actors for generating, diffusing, and utilizing new knowledge for rural development. Innovation differs from research and its output in that innovation is the ability to manage knowledge creatively in response to market-articulated demands and other social needs social process (Engel, 1996)<sup>2</sup>. An innovation system can be defined as the network of organizations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organization into economic use, together with the institutions and policies that affect the system's behavior and performance<sup>3</sup>.

Different types of drivers (i.e. globalization, markets, migration, urbanization, climate change) are forcing changes in peoples' livelihood strategies, especially in those of rural populations that need to constantly adapt strategies to subsist. Economies at all levels (regional, national and/or local) are innovating and adapting, sometimes transforming technologies and other using knowledge to create new ways to face the challenges brought by insertion into a competitive global market.

There is a lot to learn in terms of the state of the knowledge, practices and policies on innovation of agricultural systems in the Andean region. There is a diverse and complex amount of information that needs to be looked at to learn about what drives innovation, what types of national innovation systems (NIS) are in place and what is needed to bring innovation forward into policy makers' discussions regarding poverty reduction with inclusion in the Andes region.

In this research we go beyond the traditional NIS concept of innovation where innovation is mostly associated with the knowledge produced by the academic sector and which is then transferred to local farmers. Instead, we understand innovation as the process through which a human group uses knowledge produced by different agents to create new value. Innovation results can be translated into economic, cultural or social value which will then contribute to population's wellbeing<sup>4</sup>.

This study looks at innovation of agricultural systems at a regional level, within the context of Andean communities, bringing together case studies from different countries in the region to contrast, compare and find trends with which an idea of how innovation in rural setting is taking place in the Andean Region. This regional perspective should allow specialists, producers, and stakeholders in the region to learn from experiences that are being developed by others, considering the similarities that exist between geographic and social

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<sup>1</sup> Rajalahti, R., W. Janssen y E. Pehu. 2008. Agricultural Innovation Systems: From Diagnostics toward Operational Practices. Agriculture and Rural Development Discussion Paper 38. The World Bank.

<sup>2</sup> Engel, P and M.L. Salomon. 1997. Facilitating Innovation for Development. A RAAKS Resource book. KIT Publishers, Amsterdam.

<sup>3</sup> Rajalahti et al. 2008 *op. cit.*

<sup>4</sup> Rajalahti et al. 2008 *op. cit.*

contexts. Knowledge exchange within the region would allow organizations and people (farmers, practitioners and decision-makers) involve on innovation initiatives to have access to the information that may lead them to new ideas or tools in order to replicate successful projects and actions in their own territories.

The Consortium for the Sustainable Development of the Andes Ecoregion, CONDESAN (for its Spanish acronym), has created a program called *Panorama Andino* that focuses on a synthesis and meta-analysis of the state of the knowledge, the practices and the policies on key issues that are relevant for the sustainable development of the Andes Ecoregion. This year Panorama Andino has focused on innovation of agricultural systems. We are looking at innovation processes located within small markets that have managed to improve wellbeing and inclusion of rural Andes populations. This study and synthesis process will permit a deeper knowledge of what drives some people to innovate and produce something new compared to others. We expect to learn more about how existing environments (natural, social, cultural, human, political, economical) exercise influence over the occurrence or non-occurrence of an innovation process. Additionally, through mapping all the actors we hope to better understand the agents that are involved in innovation processes that result in poverty reduction with inclusion.

## 1. CONTEXT

Andean agriculture is characterized by its cultural diversity and heterogeneity. This economic activity occurs through a wide range of ecological floors with different climates as well as diverse access and use of natural resources. Social and cultural aspects as land property, human capital, local knowledge, social arrangements, and national infrastructure services are also some of the elements that define the existence of a wide range of contexts within rural local communities in these countries.

In terms of the agricultural characterization of Latin America, the IIASTD evaluation<sup>5</sup> (IAASTD, 2009) asserts that there are three production systems to be considered in this area (which includes the Andes). In the first place, there is the traditional/indigenous system, which refers to the kind of agriculture which includes indigenous farmers and African-American systems based in local and ancestral knowledge and which are linked to the territory and family organization. A second system is the conventional or productivist one, which includes intensive production practices associate to monocrops, external elements and it is focus on the market. Finally, the third one is the agroecological system, where the focus is on productive diversification, traditional knowledge revaluations and dialogue between agents.

Over the past fifty years, agriculture in the Andes has been affected by a development model focus on the conventional production type, which has had a negative effect on natural resources and people's livelihoods in rural areas. There are many indicators that serve to describe the situation of the population living in this area and that show that despite pro-poor policies and programs being put in place by diverse governments in the region, poverty persists in the rural Andes. Within this context, innovation systems appear as a way through which many of these populations look for an alternative solution to improve their economic and social situation without necessarily having to depend on the state.

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<sup>5</sup> Evaluación Internacional del conocimiento, ciencia y tecnología en el desarrollo agrícola- IAASTD, 2009, Agriculture at a Crossroads, Volumen III: América Latina y el Caribe. The Center for Resource Economics.

Another important aspect when describing the Andean context is to look to what happens with national agrarian and innovation policies. Even though each country has a different way of setting agrarian and rural policies, we may wonder: How are they considering the complexity of rural territories? Are governments really doing all in their power to address the serious poverty condition mentioned above? These are just a couple of questions we want to answer through this investigation.

## 2. RESEARCH METHODOLOGY

We use the Innovation Systems conceptual framework to analyze case studies in the seven countries of the Andes Region: Argentina, Bolivia, Colombia, Ecuador, Peru and Venezuela. An innovation system can be defined as a group of networks conformed by organizations, enterprises and individuals which are focused in provide a use and economic, social and cultural value to new products, new processes and new organization figures, considering those institutions and politics that affects the behavior of the system. Innovation system concept includes not just science providers but the total agents involve in innovation (entrepreneurs, research and training centers, public policy sector and civil society organizations) focusing on how they interact. In other words, this concept is beyond knowledge creation because it tries to understand all the elements that affect the demand and use of knowledge to create value in a useful and creative way<sup>6</sup>. Thus the agricultural innovation systems approach aims to understand and facilitate the interaction between facts and agents looking for the generation and use of knowledge to create new value in the form of innovations for agricultural sustainable development with social, economic and cultural value.

We follow the World Bank's conceptual framework when considering the elements needed to analyze innovation cases: 1. Innovation history, finding what happened through the years, the way an innovation came out and how it was developed. 2. Principal innovation agents and their roles in the system. 3. Attitudes and behavior of the agents when interacting. 4. The effects and characteristics of patterns of interaction, and (4) the enabling environment for innovation<sup>7</sup>.

Basing our analysis on this perspective we will have the chance to explore the different knowledge sources as well as the characteristics of the dynamics and relationships that conducts their application within the system. Also, we will be able to identify the influence structural social conditions have when agents established social arrangements as well as the way policy or citizen movements are able to influence them.

## 3. CASE STUDIES SELECTION

The cases were selected using the following criteria: (1) cases linked to Andean agricultural innovation processes located above 1000 meters over sea level; (2) innovation processes that can be directly related to the economic growth (poverty reduction) with inclusion of a rural locality and/or rural group within this locality; (3) some amount of documentation on the process already exists; (4) processes that have been finalized or are still in progress; and (5)

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<sup>6</sup> World Bank. 2006. Enhancing Agricultural Innovation: How to Go Beyond the Strengthening of Research Systems. Agriculture and Rural Development. The International Bank for Reconstruction and Development / The World Bank.

<sup>7</sup> World Bank. 2006 *Op. cit.*

innovation processes that are located in small markets and that have sought to expand towards the outside.

Likewise, cases were selected keeping in mind balances between the different Andean geographic scopes, gender, age, ethnicity and the inclusion of vulnerable groups. Finally, we have included “below the radar” cases, those that do not emerge or result from public policies or other form of formal research organization initiatives.

The case studies are being documented through a collective and collaborative research. The selection process has had two phases. First, 6 and 7 cases per country were identified. These cases were briefly documented using an abbreviated version of the innovations systems conceptual framework that collected key information that was later discussed during a second phase. This second phase consisted of a workshop that brought together researchers in charge of collecting information in each country, to discuss which were going to be the final three cases selected per country (see table 1).

*Table 1. Case studies selected for in depth analysis*

Cases	Location	Objective
Abilities development, productive improvement and milk market in farmer communities.	41 districts in 8 provinces in the Puno highlands, Peru	Increase the incomes of 7000 milk producers within 17 river basins in the Puno region through the development of productive and management abilities for milk and cheese production and business skills for commerce.
Specialization program for coffee tasters with an international certification Q-Grader in Perú	Oriental Andes valley provinces, Peru	Develop technical abilities for the improvement of the quality of the coffee which is elaborated by local producer's organizations and exportation enterprises. This project has formed 19 tasters (5 women and 14 men) have been authorized as Q grader taster by the Coffee Quality Institute in the United States.
Strengthening capacities for production, management and commercialization of textile handicraft	Yauli district, Huancavelica, Peru	Improve the management of the business and the quality of the textile products the enterprise Ayllu Sumac Rurac develops. This has been done through new processing and transformation techniques as well as the renewing of designs and the establishment of new commerce channels.
Yacon recuperation and agroindustry	Barcena, Jujuy, Argentina	Recover the growing of yacon and to add new value to the product. In order to accomplish this there was established a small rural agroindustry to process yacon, which is now producing tea, juices and pickles.
Quinoa real reintroduction in Cusi Cusi	Cusi Cusi, Jujuy, Argentina	Diversify production by recovering quinoa crop and establishing a small agroindustry in order local producer are able to increase their incomes. Also, to organize producers through a cooperative that allows them to manage the project by their own.
Technicature in regional cuisine and food culture	Tumbaya, Jujuy, Argentina	Offer a new public technical career for local population. It takes places in the context of the success of the touristic activity in Humahuaca. This technicature is based on local values and it constitutes an employment alternative for young people.
Communitarian baskets	Riobamba, Ecuador	Organize urban consumers in order they can access to healthier food products as a way to save money, and improve their diet. Also, to reduce intermediaries between consumers and producers within the food market.

<b>Cases</b>	<b>Location</b>	<b>Objective</b>
Seeds guardians net	Various rural communities, Ecuador	Rescue local management of authentic seeds through the generation of new knowledge based on local experimentation. To organize a net for knowledge interchange and other activities this leads to the wellbeing of the members of the net and the communities.
Katalysis: helping Andean farmers to deal with climate change	Imbabura province, Ecuador	Improve the productivity and biological resilience in rural farms through the acquisition of new knowledge and participatory technologies, focus on water management.
Tusuco Net: communitary tourism as an alternative for rural development	Various rural communities, Bolivia	Promote an alternative tourism which is based on local organization's needs and cultural beliefs. To develop business and leadership abilities between the members of the net.
Oca's api	Uma Uma district, Bolivia	Recover oca's production and start its transformation and commercialization in the national market by developing different sub products, such as api, a traditional product consume in the community.
Biodiversity conservation and market access by small scale farmers	Cochabamba, Bolivia	Develop the organic production of new potatoes varieties. To commercialize potatoes production in the national market as a "gourmet" product.
Los Soches agropark	Usme, near Bogota, Colombia	Establish resistance processes to the city expansion by developing strategies which allow them to maintain their rural territories.
Sustainable potatoe agriculture in Fuquene	Fuquene lake, Colombia	Contribute to the recuperation of Fuquene lake basin (which has been affected by several environmental damage) and improve local rural populations wellbeing.
Social management for rural organization based on a e-learning process	Various rural communities, Colombia	Strength management abilities in local leaders from 26 small producers organizations through a virtual training in the design and execution of plans which allows them to face challenges within their organizations.
CECOSESOLA and the vegetables fairs	Lara state, Venezuela	Articulate civil society with small producers groups in order to eliminate intermediaries, offering high quality products at a low price.
La Alianza cooperative	Lara State, Venezuela	Produce healthy food products based on ecology agriculture experimentation developed in association with INIA.
Cabimbu rural box	Trujillo state, Venezuela	Develop a microfinance strategy based on an auto management perspective for the local development.

A check list was elaborated with a series of elements that should be taken into account when evaluating an innovation by the workshop participants. The check list included aspects as the alliances and organization strengths of the innovator group or the potential that the innovation has in order to be replicated, among other elements that an innovation process involves (see table 2).



Table 2: Elements within an innovation process

Innovation element	Description
1.Participatory processes	To identify empowerment, self management, local knowledge and social inclusion processes.
2.TICs incorporation	To identify the different uses of new technology in production, management and trade processes.
3.Process attributes	To identify which were the main features of the innovation process.
4.Products attributes	To identify which were the main features of the products developed through the innovation.
5.Alliances	To identify the networks and its impacts in the market chain and in the social and political institutional environment.
6.Organization strengths	To identify the capacities and competences the organization has learned and strength through the innovation process.
7.Potential	To identify the possibilities the innovation has to be replicated in other areas.
8.Capital balance	To identify the interaction between the social, political, economic, physical and environmental capital.

Using this checklist eighteen cases of innovation were finally selected in six of the seven Andean Ecoregion countries: Argentina, Bolivia, Ecuador, Colombia, Venezuela, Peru. The selected cases were the ones that included most of the eight elements we have mentioned. Additionally, the geographic diversity and the variety of the products or services developed in the innovation were other important aspects that were taken in mind when selecting the experiences.

#### 4. RESULTS AND DISCUSSION (First analysis of what we have so far)

Our findings at the moment indicate that the way innovation is developing in the Andes does not follow predefined patterns or methodologies. Furthermore, through the initial analysis of the cases we see that each locality has created an original roadmap through which they are looking forward to improve their economic and social situation. In this sense, once again, the diversity is the main feature we highlight when observing innovation cases. Communities are diversifying their economic activities as poverty reduction strategies in ways they had not done before. Cultivation of new crops, communitarian tourism, handicraft, microfinances, coffee tasters or e-learning tools for agriculture management, are just some of the innovations we have identified through this research.

As we have seen, a systems perspective highlights the interaction between different kinds of agents participating within an innovation process. Through a systems thinking perspective we can look at innovation in a way that takes into account the human dimension and the stresses (changing markets, out migration, climate change, access to food, etc.) on rural

populations.<sup>8</sup> Due to the complex elements that are mobilized in order to accomplish a successful innovation project, it is not possible that a single private organization, public agency or producer association is able to develop this kind of initiative themselves, there needs to be a network of actors involved. Based on the eighteen experiences we have identified we can assume that, in most cases the implementation and the idea for developing an innovation is the result of a coincidence of interests. Producers associations, nongovernmental organizations, enterprises and public agencies are adapting their individual objectives and management tools in order to establish fluid and trustworthy relationships that will lead them to obtain the benefits they would not be able to get without the help of their partners.

Exploring the role each kind of agent has, we could say that within a rural environment, the role external agents play goes from providing financial support to promoting learning processes that local groups may need in order to become independent and develop ownership over their own innovation projects and processes. It is important to point out that the role of the external agents responds to the demands of local groups within the community. This fact established how dynamics of relationships have changed over the years. In the past these same external agents were the ones that decided, following a top-down dynamic, what were the best options for project beneficiaries. This is very important to take in mind because it lets us see that even though local communities are still far away from complete autonomous processes, they now have a lead role in deciding how to guide the initiatives that take place in their territories.

*What roles do the different actors in the public and private sector have?*

There has been a shift in the role public agencies have compared to twenty years ago. At present, national agrarian development or research agencies (which are usually called INIAS) usually do not have the main role in innovation rural projects. The failure of numerous projects lead by the INIAs can be related to the application of a restricted transfer of technology approach, which does not consider the importance of social organization and local knowledge as key rural development elements. Through our research we have seen that in some cases within the Andes region, national research agencies are contributing to innovation processes as important partners for specific research or technical activities. Such is the case of the Cooperative “La Alianza” in Venezuela, an initiative promoted by a group of catholic missionaries that has developed all its agro biodiversity experimentation programs together with INIA technicians.

We have seen that aside from the INIAS, other public institutions have had relevant roles in innovation. In some cases, these public institutions have given financial and infrastructural support for activities leaded by other private and local organizations. In other cases, they have proposed and/or lead innovation initiatives. This was seen in one of the case studies in the province of Jujuy, northern Argentina. Here, the Regional Education Ministry has created a career called Diploma in Regional Cuisines and Alimentary Culture, which attends the demands of local young people who are interested in gastronomy as an employment option. This initiative is set within the touristic success in Quebrada de Humahuaca and offers people an education based on their local culture. This aside from creating new economic and

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<sup>8</sup> Bosch O. J. H. , C. A. King, J. L. Herbohn, I. W. Russell and C. S. Smith. 2007. Getting the Big Picture in Natural Resource Management—Systems Thinking as ‘Method’ for Scientists, Policy Makers and Other Stakeholders. *Systems Research and Behavioral Science Syst. Res.* 24: 217-232.

livelihood options especially for youth, it is also helping to revalue and rescue the cultural capital of the populations involved.

Local governments are other relevant public agents. As we have seen in some of the cases, they help to link their communities with regional markets and other institutions they work with, having a unique role facilitating cooperation relationships and strategic alliances. An interesting case of this is the role that the Municipality commission developed in the reintroduction of quinoa crop in a town called Cusi Cusi, also in the Jujuy province. Here, the leader of the commission was in charge of the innovation since the beginning, linking local producers with international experts as well as with different public and private agents who supported farmers to set an agro industry to develop products such as cereals and pop corn.

When we make a first analysis of the participation of the private sector, we find that nongovernmental organizations have an important role in the promotion and accompanying of local groups involved in innovation processes. Usually, NGOs are the ones behind a project's design or the preparation of a proposal when local groups present their projects for financial support from public, international or other private institutions such as universities or foundations. Additionally, they are often dedicated to strength capacities and help innovators with the learning of the skills required for a fair interchange with other agents. The role of the Integral Interdisciplinary Development Program (PRODII, for its Spanish acronym) in Bolivia is very close to this scheme. PRODII accompanied an association of local producers in their plight to obtain financial support from the World Bank for the revalorization and commercialization of the oca in the new markets. Even though this association received the support of various private and public organizations, the role PRODII had was direct. Through the whole process, producers worked together with PRODII technicians and facilitators in the development of the abilities and information the initiative required.

#### *Where are innovations oriented towards?*

Most innovations presented in this study have a market perspective. This means that they respond to the demands that come from what consumers want to buy in local, national or international contexts. The case of coffee tasters in Peru is a good example of a new service that is requested within an international market context. The innovation began when a group of producers became aware that they need to learn how to identify and classify the real quality of their coffee. In order to satisfy this demand, a group of young people was trained according to international quality standards. By hiring local certified coffee tasters, producers have the information which will lead them to increase the quality of the product they offer in a very competitive international market.

There are some cases in which the market's demand is not always the main reason for introducing an innovation in a local context. An individual trajectory, collective needs looking to be solved, or new habits and interests, are just some of the reasons behind a change in the way things used to be. This is related with the fact that many rural groups –and lately some urban consumers- have a cultural background that privileges networks and human relationships, food security and/or sovereignty, education, etc, over monetary benefits. In Ecuador we found several case studies that constitute a good example of this. In the first case, a group of neighbours in Riobamba city decided to organize a collective food basket that allowed them to face the economic crisis context that was affecting their family budget. Through a mutual aid system called minga (also use in rural areas and that entails communal work), members of the communal basket were able to get high quality products at a lower price by establishing a direct connection with producers. However, besides the economic benefit, the basket became a center for the interaction between families interested in promoting a healthy lifestyle.

However, it is important to say that this doesn't mean that these new activities, products, services or processes would not have a commercial value. Indeed, a social innovation can transform into a commercial innovation as long as its initial goals are not replaced by external requirements. This is very clear in the case of Los Soches Agropark (Colombia), an initiative that takes place in a town which is located very close to Bogota, the country's capital. Even though it is true that the management of the agropark has brought new income to the community, Los Soches was created by farmers that were looking to preserve their rural lifestyle. As a reaction to city authorities who had established a series of new commands that allowed them to increase the extension of Bogota, a group of farmers came out with the idea of the park which has allowed them to preserve their territory and a way of living they value as their own.

### *Products with a cultural meaning*

We have found that some Andean crops are highly valued by producers not only because of its proven nutritional properties but because of their cultural meaning. These are products traditionally cultivated and eaten by these communities and that now are also being valued by a number of urban consumer groups with new ideas about health, ecology and fair trade. Biodiversity conservation is also one of the reasons why these products are beginning to have success in urban markets. In the cases we have documented there are various examples of this.

In the first place we can mention the case of yacon, a native crop which is grown in the community of Barcena, Argentina. This is a product that had been greatly valued and massively produced for commercialization in the past but that saw its production and sale fall due to transportation problems (the train stopped going to the community). Despite the loss of commercial value, a group of five farmers continued to grow yacon for family consumption. After some time, a group of school teachers and other members of the community started to recover the yacon through some experimentation processes, producing new varieties of the crop. A group of women decided to introduce the crop to new markets. The relevance of this case is that the yacon was recovered because it has an important cultural meaning for these people, otherwise they would have continued selling other kinds of products which were already popular within the regional market.

Something similar happens with a new type of tourism that gives emphasis to cultural interchange and ecosystems conservation. By developing this kind of innovation projects, rural communities are taking advantage of an increasing demand within city groups that are looking for healthier lifestyles and for ways to contribute to the environmental improvement. This is the case of the Bolivian Solidary Community Tourism Network (TUSOCO, for its Spanish acronym), an eighteen member organization in Bolivia that develops a tourism based on the local organization's own needs and practices. In this sense, what we have here is an interesting coincidence between offer and demand of a product that has a high value in two different cultures, the andean rural and the urban cosmopolitan.

## **5. REFLECTIONS ON OUR INITIAL ANALYSIS OF THE CASE STUDIES**

Based on what we have found in the case studies on innovation processes in the Andes Region, we believe that there are innovations that are market driven and those that are socially driven. The latter are accepted by the community because they are in accordance with social and cultural norms and beliefs of the community or group of innovators.

Socially accepted innovations can eventually contribute to enhance the local economy, though this was not its first purpose. Innovation of either type (market or social) can develop through the introduction of a product or idea (i.e. quinoa, alfalfa) or recovery of a local/traditional product (i.e. yacon, api). It can also be born from the need to diversify market

and food strategies or from the identification of a product or service that could come out of giving added value to local resources (eco and cultural tourism). Finally we also found that some innovations could result from the need to improve, to specialize in certain aspects of a production or value chain that already exists. This is the case of the coffee where the introduction of tasters into the chain adds value to an already valuable product.

There are different levels of organization around innovation that might also be related with the type of innovation that takes place. In socially driven innovations, where food security (baskets) and preservation of local knowledge, seeds (seed guardians) and way of life (Los Soches) are the aim, organization for innovation can be spontaneous or based on traditional forms of organization. Nevertheless both forms of organization are nucleated around bonding social capital (or within the community social capital).

There are questions that have not been yet responded in this initial analysis we have done of selected case studies. We still need to further look at the role of national agricultural innovation and development systems have in innovation processes that are currently taking place, and what gaps exist in policies that impede a greater participation of these systems in the promotion, extrapolation and out scaling of successful innovation cases. Why is it that despite the fact there are successful cases of innovation that have happened, the state does not learn from them to establish better strategies of intervention. Finally we also need to further explore strong rural-urban linkage that can be seen exists in many of the selected case studies, especially the connection with urban populations that have become aware of the relevance of the preservation of the rural populations and its settings. This can be not only an economic opportunity, but also a social, cultural and environmental one.