

Agricultural Innovation for Rural Development: a master's program for professionals working in rural areas

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The issue at hand

One of the main challenges of a Farmer First approach is institutionalizing it, so that it becomes a permanent component of agricultural research and development. Despite of the fact that the approach and participatory research and principles were developed at least three decades ago, there are few cases of institutionalization. One of the reasons may be that most of the efforts have been oriented to work with institutions, which are in direct contact with farmers while much less attention has been given to work with institutions that provide professional and technical training for field workers. As a result, agronomists and animal science specialists, who work directly with farmers and their organizations, do not have the knowledge and skills to understand or facilitate participatory processes. Those who understand the importance of participatory approaches have to learn through trial and error or, if they are fortunate, may attend one of a very few short term courses on the subject. One of the main challenges as we move forward then is to complement the often-narrow formation of agricultural professionals with a more holistic understanding of the social and economic phenomena related to agriculture. The demand for professionals with a more holistic understanding of the importance of participation for innovation, market development, action-oriented research, and environmental sustainability is already on the increase.

Assessing training needs for New Professionals

In 1998, a small group of professors with experience in participatory processes and agricultural development at the National Agrarian University in Lima, Peru was invited to "revive" the extension master's course that had been closed down three years earlier for lack of students and professors. The course had been linked to the Faculty of Agronomy, and complemented technical courses with a few in extension and communication geared to enhance Transfer of Technology (TOT). Recognizing that the era of TOT had reached its end, a view not shared within the institution as a whole, the group decided to conduct a market study on the need for a post-graduate course that would provide needed skills to professionals, principally but not only, from the agronomic sciences working in rural areas. The study looked at both the need for post-graduate training and the kind of subject matter that would increase capacity to engage actively in multi-stakeholder development efforts specifically with local governments, NGOs and community-based organizations.

Representatives of non-governmental and governmental institutions were invited to a series of conversations to explore these issues. Initial explorations confirmed that the profile of agricultural development workers had changed radically by the late 1990's as compared to the 1980's when the Ministry of Agriculture operated a nation-wide system using the Training and Visit (T&V) extension method. Under the T&V program, extensionists had received scholarships and study leaves for full time study during two academic years. By the 1990's, professionals trained in the field of agriculture worked for a wide range of governmental (national, regional and municipal), non-governmental (educational, technical assistance, marketing) and private sector institutions including agricultural input and mining companies. The demand on their skills had diversified substantially and they were being called on to contribute to planning, organizational and economic development initiatives for which they had not been prepared during their formation as agronomists, animal production specialists, nutritionists and foresters.

Once the demand for new skills had been identified, the topics that should be included in a master's programme were discussed. These included: participatory research and training methods, innovation, rural development, communication and learning principles, leadership and social organization, systems analysis, strategic planning, systematization processes, research methods and agro-ecological principles. The demand was clearly for an interdisciplinary approach, emphasizing social science aspects, in post-graduate training for professionals in agriculture-related fields. The study evidenced a nation-wide demand among working professionals and institutions in rural areas for this type of training.

Implementing the Programme

The master's programme 'Agricultural Innovation for Rural Development' began operation in 2001 <http://www.lamolina.edu.pe/Postgrado/innovacion2005>. Although there was strong support for such an innovative program at the highest levels of the University – presidency and post-graduate school – organizational bottlenecks were quickly identified. The most challenging of these was the fact that the University was geared mainly to technical fields and had few staff with the experience or qualifications to teach the new topics identified at post-graduate level. As a result, highly qualified professionals from non-governmental institutions, private consultants, other universities or international research organizations, working as visiting professors, were engaged to complement the skills of UNALM staff. In addition, collaborative agreements have been signed with the Departments of Rural Sociology at Iowa and Pennsylvania State Universities (USA) to facilitate the exchange of academic staff and students.

The second challenge was to organize the Program in such a way the fully employed professionals from all over the country could attend. In consultation with prospective candidates, it was found to our surprise, which time for study would not be conceded by the majority of institutions (mainly municipalities, NGOs and GOs). As a result, the time dedicated to face-to-face courses in a given year could not exceed vacation time that students had a right to. As a result, it was decided to offer the 10 courses as week-long modules over a 2-year period. Furthermore, and at the request of participants the modules were organized in different regions of the country. At the beginning, professors decided where modules might best be organized, but over time the students themselves began offering support to the organization of modules in places where they worked and could provide appropriate practicum situations. Readings are provided to the students electronically one-month before each module and final papers are due one month after a module has been offered. In some cases, distance learning techniques are utilised including virtual forums and chat sessions.

One of the salient characteristics of the program is its commitment to building a network of professionals nationally who can provide long-term support to each other. Each class of students (maximum 15) learn to work together and support each other during the two years of their studies. Programming of modules takes into account the occasional doubling up of classes so that different classes of students have an opportunity to get to know each other.

Another innovation was to link the Masters' Programme to the Institute for Sustainable Rural Livelihoods (IPPS) <http://www.lamolina.edu.pe/institutos/ipps/default.html>. The Institute aims at mainstreaming participatory and interdisciplinary research in sustainability-related issues in rural areas. Thus, the Institute provides the Masters' students with opportunities such as: (i) involvement in interdisciplinary action-research projects, (ii) participation in inter-learning and local planning processes, and (iii) institutional networking with their peers nation-wide.

Table 1 shows the specializations of students who participated in the masters programme between 2003 and 2007. The highest demand has been from agriculture-related professionals, mainly from agronomy and animal sciences. This demonstrates that these professionals feel the need to complement their technical formation with Social Science related issues and skills. Candidates have expressed the need to understand people's views and aspirations for their families and communities if they are to help design and promote changes that are in line with their expectations.

Table 1: Professional training of students participating in courses 2003 - 2007

Specialization	No	%
Agronomy	33	44
Animal Sciences	19	25
Veterinary Sciences	5	7
Agricultural engineering	3	4
Economy	3	4
Education	2	3
Sociology/Anthropology	5	7
Others	5	5
Total	75	100

Source: Evaluación de proceso de la Maestría de Innovación Agraria para el Desarrollo Rural, Equipo de Investigación, IPPS-UNALM, 2006.

To date, some 75 professions from 17 of the 24 Departments in Peru, representing a wide range of agro-ecosystems, ethnic and socio-economic diversity have participated in the program. Fifty percent of these are agronomists and 25 percent are animal science specialists. Of the 45 students who have completed their course work, only 10% have managed to present their thesis.

Since its initiation there has been sustained interest in the Programme in spite of the fact that students pay the full costs and attend modules mostly on vacation time. Identification of research topics as well as the time and resources needed for conducting field work, analysis and writing, is a cost that students assume once the course work has been completed.

Impact of the programme

In October of 2006 a group of students doing the module titled “Agrarian Knowledge and Information Systems” were given the task of assessing the impact of the Agricultural Innovation for Rural Development Programme” on the national agrarian and information system. Some of their findings can be summarized as follows:

Limitations of the Programme	Opportunities the Programme provides
<ul style="list-style-type: none"> • Limited diffusion of the objectives and innovative activities of the Master Programme in the University • Limited capacity or willingness of the University to include more diverse institutions and professionals to teach in the Programme • Inflexible university regulations that hinder modular and decentralized activities by not facilitating administrative procedures • Students are not as active as they could be in lobbying for change despite their manifested interest in becoming involved in the Programme • The Post-Graduate School and the Department have not bought into the ‘project’ which can be observed in the high number of visiting professors the Programme relies on • Not all visiting professors have the time to advise thesis research 	<ul style="list-style-type: none"> • Students from the provinces have the opportunity to interact with nationally and internationally known professors and lecturers • Students have the opportunity to learn about different rural development issues in different parts of a diverse country • UNALM and the students can take advantage of alliances and cross-accreditation with Universities internationally • IPPS provides support to students and catalyzes exchange and networking • Key stakeholders (GOs, NGOs and Farmer Organizations) become aware of the need for better coordination and exchange as a result of exchanges among students • National and regional networks are built among professionals who share development strategies

Future Challenges

Although students have indicated that course content is directly applicable to their work, and that it has contributed to an increase in capacity for planning and implementing development interventions the UNALM has been slow to take ownership of the ‘project’. The formation of capabilities within the university is very slow and may influence the future sustainability of the masters’ program. To date the UNALM has not taken responsibility for the programme and some 70% of lecturers are ‘visiting professors’ who have neither voice nor vote in matters that affect the decision-making process of either the Program or the Department or the Post-graduate school. Within the UNALM there are few opportunities for, or lack of interest on the part of staff, in interdisciplinary degrees, particularly when these involve the Social Sciences. In order to accommodate innovation, respond to the demands of decentralization and participatory development, the university will have to become flexible if it is to respond to emerging needs and changing time.

Despite the difficulties of institutionalization, the program is an example of a formal master course in the most important agrarian university of Peru that is attempting to mainstream participatory principles rural development. It provides an opportunity for agricultural and other professionals to receive formal training on principals and methods within from the perspective of multi-stakeholder involvement in locally managed development for agroecological, community and rural livelihood sustainability.