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# Developing Competencies for Rural Development Project Management through Local Action Groups: The Punta Indio (Argentina) Experience

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Additional information is available at the end of the chapter

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#### **Abstract**

This chapter provides the foundations for a new approach in competence development for rural development project management, involving the role of higher education in the solution of real-life problems. This experience took place in senior courses at La Plata University and included the participation of students from this university. The research was carried out in Punta Indio, which is affected by rural depopulation, as are the rest of the territories inside the Buenos Aires Province. The process is developed through project-based learning (PBL) and the basis of the working with people (WWP) model, involving project management competencies according to the International Project Management Association (IPMA) standards. In the formation of local action groups (LAGs,) elements from the LEADER (Liaisons Entre Activités de Developement de l'Economie Rural) rural development model—applied in the rural territories inside the EU—were taken into account.

**Keywords:** project-based learning, rural development, professional competencies, project management, working with people, higher education

### 1. Introduction

The University represents new training paradigms, which establish the need for greater involvement with society and the environment; not only transferring, training and communicating, but also listening, learning and reflecting on the content of the messages sent by the



community [1]. This vision regarding the role and remit of the University's activities within the community allows them to be integrated in a natural and permanent manner with teaching and research activities [2]. The UNESCO [3] report on higher education highlights the ability to adapt to changes imposed and demanded by today's society as one of the challenges faced by the university system. In this regard, not only the knowledge, personal attributes, skills and experience are important, but so-called professional competencies are also the key. There are many definitions surrounding the concept of competencies and although there is no agreement on a single definition, there are multiple different conceptual approaches. Among all of these, the International Project Management Association (IPMA) proposes a definition focused on project management and defines competence as a demonstrated ability to apply knowledge, personal attributes, skills and relevant experience in order to achieve success in a specific function [4]. As a result, competencies can be defined simply as the result of a process of integrating skills and knowledge: know, know-how, know-why, know-who [5]. However, this definition omits the fundamental role that context has with regard to competence development. According to the project management institute (PMI) [6], in terms of developing competencies for managing projects, knowledge must be adapted to the whole social and cultural system, which requires it to be used appropriately. The adaptation of this knowledge to different contexts can require a manager who is focused on solving problems. In the case of rural development projects, these managers have a fundamental role in channeling endogenous development. These criteria were used in the development of the doctoral thesis research titled "Rural development in Argentina: evolution and proposal of an intervention model for displaced rural communities in The Pampas." The research was carried out in an area called Punta Indio, in the province of Buenos Aires. A small group of part-time teachers participated in the research, as well as a group of interns formed of students in the upper years of their agricultural and forestry engineering degrees from the National University of La Plata, Argentina.

The research was aimed at identifying people who were interested in innovative proposals which would enable them to carry out new initiatives in order to implement them. As a result, training was carried out on project-based learning (PBL) [7–9] and a social activation experience from the Punta Indio region, with the objective of creating the necessary conditions to implement a development strategy. Furthermore, the research involved the creation of a local action group (LAG) (and the development of its competencies according to IPMA standards) [4], for managing rural development projects based on the specifications of the leader approach applied in the region.

### 2. Managing rural development in Argentina

The changes created by the technological modernization process in the Argentinian farming sector in recent decades have had a significant impact on the different social actors involved. Although agriculture is modern and thriving, some externalities have arisen, such as the advances in agricultural transformation in areas outside of the Pampas and vast movements of labor to urban environments [10–12]. It is evident that the loss of rural population is a phenomenon which is seen across the world, as societies develop and as a result of the

changes and crises in economies which affect traditional farming societies [13]. Therefore, certain authors [14, 15] believe that the agricultural transformation in Argentina has accelerated the social and population changes seen in the sector. The rural towns that make up the social framework in each region are a reflection of this situation. In many cases, the lack of new nonfarming employment opportunities combined with a series of changes that affect employment levels (family and business) in the area's farmland is the most visible problem facing the smallest of villages. These have experienced a crisis due to the lack of economic activity, which leads to a population decrease, not only as a result of an aging population but also as a result of losing young people who want to live in a better location in cities. As a result, many villages have the same kinds of problems, in a type of vicious circle: economic structure strongly linked to traditional farming activity and with a lack of appeal for new projects and diversification of production, lack of employment opportunities and withdrawal or decline in local human resources (progressive deskilling of labor, technological alienation among production agents, aging population, etc.) [12]. According to Gorenstein [16], this situation causes diseconomies (external factor that affects the normal functioning of the economy) of agglomeration and cooperation, among other effects. Argentina's current agricultural development model (especially in the Pampas where it is dominant), which is based on the production of export goods, intensive technology for supplies and capital, favors larger economies with economic concentration and deeply harms the basis for food sovereignty among the rural, periurban and urban population [17]. The changes that have been seen in the Pampas' agricultural system and their social effects have led to a series of debates relating to the focus which has guided its development over these years. The shrinking agricultural structure due to the loss of producers and reduced population levels in rural villages forms an area of research and analysis of these transformations and the ways of addressing these. At a glance, it is clear that the economic and social imbalances, which have historically defined its evolution, far from disappearing or diminishing, have become more prominent in recent years. In a way, the rural development policies that have been implemented in Argentina in the last two decades have not achieved their proposed objectives, or it may be that these problems were not considered as such for the Pampas region [12, 18]. According to some authors [19, 20], rural development in Argentina has always been linked to policies aimed at poor rural sectors in marginal areas or regions outside of the Pampas. For Schejtman and Barsky [21], rural development in Argentina is a process, a way of working toward productive progress; improving the quality of life for the rural population; strengthening civil society and democracy; territorial development; conservation of natural resources and; respect for cultural diversity. Coinciding with this focus, Sili [14] relates rural development to a process of rural transformations which arises from the organization and revitalization of the territory with the following objectives: achieve a high level of innovation and economic diversification; drastically reduce the levels of poverty and marginalization; improve infrastructure; equipment and services for economic development; and improve the quality of life for the rural population [22].

These circumstances make it necessary to find other development alternatives, where the presence and commitment of the state and public polices can be guaranteed among the most unprotected sectors [23]. More recently, based on the information provided in the National

Farming Census [24], Obschatko [25, 26] created a new segment of producers, which considers "small producers" as those who directly carry out production tasks in farming operations without using salaried employees. As a result, family farming began to gather strength as a way of describing those producers in the country who are grouped in a different way to those from traditional farming and who promote other values such as: resource conservation, organization of producers, family production as a way of life and as a cultural matter. Finally, the definition indicates that the concept of family farming includes farming, livestock or cattle, fishing, forestry, agribusiness and traditional production, as well as the traditions of harvesting and rural tourism [27-29]. Toward the end of 2004, the National Federation of Family Farming (FoNAF) was created by the family farming commission, as part of the Ministry's remit and supported by the Argentine Agrarian Federation (FAA) and as a result of the proposals that emerged from the "National and Latin American Congress on Land Usage and Ownership", in which delegates from over 150 family farming organizations and indigenous communities participated. In March 2006, the Secretary of Agriculture, Livestock Farming & Fishing in Argentina officially formalized the FoNAF's remit as an area for debate and agreement of public policies for family farming. In May 2006, the FoNAF's 1st National Plenary Session took place in the city of Mendoza. This led to the creation of the FoNAF's 1st Document, known as "Mendoza Document" or "agreed diagnosis for the family farming sector." In December 2015, all of these innovative actions in the field of rural development culminated in the approval by the Argentine Congress of the family farming law known as the "Historical repair of family farming to build new rural life in Argentina."

### 3. Case study and shortcomings or levels of competence

The participation of the National University of La Plata, Argentina, in the research involved a small group of part-time teachers, as well as a group of students in the upper years, who were studying courses that are part of the rural development department of the Faculty of Agricultural and Forestry Sciences, including: rural extension, introduction to management, introduction to agricultural and forestry sciences, socioeconomics and curriculum integration workshops I and II.

Through an open call addressed to all students who were part of these courses, they were offered the opportunity to participate in a research experience that would allow contact with rural stakeholders, as well as the opportunity to establish this research as a basis for their future final degree dissertation. Of the 190 students who took part in these courses, a total of 23 students voluntarily registered to participate in this research experience.

The process of selecting students was conducted based on the activities developed in the framework of the applied research project: "A development strategy in rural villages: application in the Town of Punta del Indio," which was approved and funded by the National University of La Plata, Argentina.

The departmental board made the final selection of students to be enrolled, based on academic merit, knowledge of certain tools to work in the rural-social sector and interest in the



**Figure 1.** Location map. Punta Indio. Source: Google maps and http://heraldicaargentina.com.ar/1-BA-PuntaIndiomapa. jpg.

topics addressed. Of the 23 students enrolled, four principal members and four substitutes were selected.

The research project was carried out in the region of Punta Indio (administrative area) in a small town of the same name and with a population of 600 people. This region is located to the northeast of Buenos Aires province on the banks of River Plate in Samborombón Bay (**Figure 1**). The main town is Verónica, which along with Pipinas, Punta del Indio, Álvarez Jonte, Las Tahonas, Luján del Río, La Viruta, Monte Veloz and Punta Piedras are the main populated areas. The total area of land in the Department (Partido) of Punta Indio is 1550 km² and the total population is 10,660 people.

This area can be described as a vast plain which forms part of the Salado River Basin (the main water basin in the Province of Buenos Aires). Its characteristics primarily stem from the conditions which characterize this basin: generally flat topography; mild humid climate; limited water network; land with limited drainage and hydromorphic features, with limitations due to high sodium levels; the presence of floodplains which have historically been subject to regular flooding; and seasonal drought cycles [30]. The ground in this area is fairly level and whilst it is not suitable for farming use, it is mainly suitable for livestock farming [31]. As a result, the economic activity in the area is primarily focused on livestock farming, with other sectors still providing a small contribution to overall GDP. This situation has contributed to a stall in population growth and, moreover, an exodus in rural areas, especially among youth and families of producers who move to urban centers in the search of a better future. This,

without a doubt, creates a complex social and economic backdrop as well as an uncertain future, as there are no policies or actions aimed at reverting this process of permanent decline.

A general review of the literature regarding development from a territorial perspective shows us that there are many concepts of territory applied in order to facilitate social, economic, cultural, political and institutional analysis within a given geographical area, which also help to form the basis of public policies aimed at resolving the problems identified across these dimensions. Therefore, Cazorla [32] indicates that with territorial analysis, development should not be considered as simply combining a group of resources and methods, but rather as improving the quality of life. As a result, it makes sense to get close to the local population, to learn about their history and customs as well as to plan the development with them, in a bottom-up approach in which a territory's complex history and culture require them to identify those factors that have the greatest impact on development planning.

Within this framework, the rural development management models have provided important changes over time; the emergence of territorialism in the current rural development debates is no coincidence. It is a response to economic and social changes, where the debate promotes a different vision in terms of the territorial problems and directly involves rural populations in the design of new development perspectives [33].

In the EU, the Leader program has been able to stimulate the development of local actors' abilities through social capital [34]. Through these programs, innovative horizontal integration has been established with the objective of allowing local agents to develop an organic group of actions thanks to the creation of nonprofit organizations called local action groups (LAG) [35]. The importance of these groups lies in the fact that they are public-private associations that promote connections between governments, civil society and economic sectors to train mixed groups. This requires the involvement of local actors in the development process and facilitates improvements in the skills of administrative employees and the population in general [34, 36]. In the long term, the general objective of this local development is to transform the local economic and social system. In turn, this overall objective translates into two objectives in the short term in order to achieve its goal: the promotion of business activity and the coordination of all activities and programs which have a local impact. The promotion of business activity relates to the local business owners in their dynamic role as well as economic and social growth [37]. When setting out the need for change, local development plays a role that includes the promotion of endogenous growth and internal investment which facilitates the creation of new SMEs, cooperatives, community businesses, innovative companies and in particular social economy entities.

In this context, it makes sense to carry out activities aimed at strengthening the development group leaders' abilities and to become the focal point for management processes and project implementations in the rural area [5]. The project management institute (PMI), in line with other authors [38], describes project management as "The application of knowledge, skills, tools and techniques to meet the project requirements" [6]. According to Meghnagi [39], each person builds their own competencies and knowledge at the heart of a process that is not just limited to straightforward contact with the actual or symbolic situation, but equally takes place through social intervention, favored by the most competent individuals or their peers.

In contrast, Morris [40] criticizes these definitions for being too focused on the execution tools and processes and advocates a wider definition of project management with an emphasis on the importance of a wider business and strategic context as well as a focus on people leadership. Blackburn [41] reinforces the first concept, supporting the idea that, in order to work in the rural development field, individuals require competencies and abilities in order to manage projects in a more efficient and sustainable way. Other authors [42-44] also agree that the project management is a complex process with multiple results in terms of focusing on competencies and which requires a variety of skills and knowledge to be acquired. One of the most interesting aspects of competency-based project management is the significant change in the focus that is placed on people's work. Rather than simply concentrating on determining what people do, or what people should be doing at a given time in their professional duties, the key is to create an intermediate step that determines the support that is expected from people in order to achieve the strategic objectives expected by the organization [5]. All of the organizational actors are important in the identification of competency-based management processes. Each one should contribute their experience and creativity to the project management process [45]. In order to develop competencies in rural development project management, it is necessary to incorporate a number of factors aimed at achieving development objectives. Therefore, the competencies of the groups or people themselves should be included in the analysis and should be positioned on three main axes which together form the focus for any activity: (1) what it wants to be, (2) what it is and what it knows to do and (3) what it is capable of doing. This creates a strategy which includes wishes, goals, resources and capabilities which facilitate development, with some authors defining this as sustainable competitive advantage [5].

### 4. Methodology

The methodology used in this study was based on the criteria established in the "working with people" (WWP) [46–48], a planning model that is based on planning guidelines as social learning and competencies development through project-based learning (PBL) [7–9] addressed to local communities. This model forms part of a new understanding of planning, aiming to transform society, connecting thoughts with actions through gradual changes in accordance with the local population's idea of live [46, 49]. The process of social learning involves the use of theoretical-practical training methodologies and strategies that are focused on action research with the aim of diagnosing, intervening in and resolving development problems in the territory. Therefore, social learning is a methodological process in which the knowledge of reality and practical experience are equally influential and is known as mutual learning [50].

The methodology consists of five main sections:

- 1. Diagnosis of the characteristics of the productive elements in the Department of Punta Indio.
- 2. Identification of potential elements that could be of importance when it comes to designing a rural development strategy for the department.

- **3.** Initial contact with the region's rural communities to involve them in the design and evaluation of these options.
- 4. Organization, ranking and articulation for practical application.
- **5.** Financial evaluation and securing sources of finance.

In order to progress to the design, development and implementation of these elements, it was necessary to carry out an initial study of the territory in question, from both an anthropological and cultural perspective, as well as a natural environment perspective. The aim was to get a detailed understanding of which elements might be attractive when evaluating them as mechanisms for driving development. Similarly, the region's unique environmental aspects were taken into consideration.

In order to implement this methodology, the participation of the population is required. Furthermore, in order to guarantee flexible planning, it is essential for there to be a knowledge-action-competence link so that a fruitful backdrop can be formed, against which science creates a frame of reference which comes to life and transforms as the population starts to set out its interests and incorporates knowledge in order to impact reality [50]. Discussing about social learning it is also synonymous with "working with people" (WWP) [46-48], a model developed by the GESPLAN research group at the Technical University of Madrid (UPM), which is based on planning guidelines for development, devised by Friedmann [49] and Cazorla [46]. Accepting this focus on competencies means rethinking our experience of acting in the territory, the ways in which we organize and implement activities within the community. Therefore, the WWP model aims to transform society through social learning, by connecting thinking with action through gradual changes, in accordance with the local population's view of life. It involves mutual learning between the technical team and the community which implements the capabilities, by both parties, in order to develop competencies through: continuous practice in challenging contexts; a high level of interaction and communication; ongoing investigation and critical reflection; and proposing challenges which stimulate curiosity and interest, increase commitment and the extent to which people are happy with the actions in response to the challenge and stimulate and enable imagination and innovation.

### 5. The integration of competencies in the development strategy in Punta Indio

Punta Indio's strategy is the outcome of applying a development model that arises from reflecting on rural depopulation problems in "La Pampa" region, Argentina [51]. The action planning process was participative, in which the population (through its representatives from public and private entities) addressed the problems facing their communities.

This development model incorporates the working with people (WWP) approach [46–48] as a scientific basis, the principles of planning as social learning and elements of the leader initiative as an experimental approach for rural development based on a territorial approach, the

creation of new participatory local government structures and decentralized management. The model is applied in the territory of Punta Indio (Argentina) [51], by highlighting several of the relevant aspects to address the problem of rural depopulation: the active participation of beneficiaries in the design of their own development, territorial approach, bottom-up approach, the creation of a local action group (LAG), innovation, integrated and multisectoral approach.

While development activities were taking place, a learning process was applied with members of the LAG of Punta Indio, which integrated capacity building for the application of project management competencies. This process was based on project-based learning (PBL) [7–9] and it was structured taking into account the application of technical, behavioral and contextual competencies in the territory, according to IPMA standards [4] and its most suitable combination within the framework of three specifications of the leader rural development model: (1) Bottom-up focus, (2) creation of local action groups and; 3) innovation.

As a result, the learning process was heavily geared toward a sustainable development strategy based on competencies, improving the community's work in search of greater efficiencies. Thus, certain competence elements were taken into consideration from the following fields: technical, behavioral and contextual. These competencies were evaluated throughout the implementation of the development strategy in order to improve the benefits for all of the agents involved.

The following technical competencies were explored:

- 1. Project management success: project management achieves success and avoids failures in its projects. An understanding of which criteria would be considered is required in order to determine the success or failure of a project and how it will be evaluated.
- **2.** Parties involved: this refers to the people or groups who are either interested in the development or success of a project, or who are part of the project.
- **3.** Project requirements and objectives: this consists of identifying, defining and agreeing the requirements in order to meet the needs and expectations of the parties involved in the project.
- **4.** Quality: is the extent to which a group of inherent characteristics meet the project's requirements.
- 5. Project structure: this element includes the design and management of the project, organizational structure, the most appropriate responsibilities and skills for a project.
- 6. Teamwork: this is a fundamental element as one person's strengths make up for another person's weaknesses. The team is not a group of people, rather a group in which everyone rows in the same direction, sharing the same values and enthusiasm for the project.
- 7. Problem solving: the ability to solve problems is the efficiency and agility in providing solutions to problems that have been identified, taking the necessary corrective actions using common sense, focus on cost and initiative.

Communication: the effective exchanges between parties and summarizing information. In projects of a social nature, it is crucial to correctly communicate information to the population.

The following *behavioral competencies* were explored:

- 1. Leadership: involves directing and motivating others in their roles or tasks in order to achieve a project's objectives. It is particularly important when a project is facing difficulties.
- 2. Behavior and motivation: is the support of those involved in a project. Commitment means that people believe in the project and want to be part of it.
- 3. Self-confidence: is the ability to express points of view in a clear manner, but without being authoritarian. It is the effective way of communicating within the team without creating differences.
- 4. Creativity: the ability to think and act in an original and imaginative manner. It is necessary to explore the group's collective creativity in the face of the difficulties and challenges posed by the project.
- **5.** Efficiency: is the ability to use resources and time in an effective manner, in accordance with the stated objectives, to meet the expectations of the parties involved.
- **6.** Negotiation: is the ability to resolve disagreements or problems. It is the means by which parties can resolve their disagreements with the project or program in order to reach a satisfactory solution.
- 7. Conflicts and crises: this competence element covers the ways of managing conflicts and crises which may arise between different people and the parties involved in a project or program.
- 8. Appreciation of values: is the ability to notice other people's intrinsic qualities and understand their points of view. It also includes the ability to communicate with people and be receptive to their opinions, value judgments and ethical standards.

The following *contextual competencies* were considered:

- 9. Implementation of projects and programs: the involvement of an organization in this instance results in establishing better processes, methods, techniques and tools, changing attitudes and applying organizational changes in a process of continuous improvement.
- 10. Permanent organizations: have a long-term purpose. It is crucial to secure support and overcome any internal resistance within a project's permanent organization. Therefore, it is important to choose the right methodology and undertake adequate planning in order to establish good initial conditions and achieve satisfactory results.
- 11. Systems, products and technologies: this competence element covers the link between the projects and the program. The systems are an organized group of elements that are connected in order to form a complete unit with specific objectives. At the same time, the various components that form a system can be grouped into three subsystems: natural,

technological and socioeconomic subsystems. The interaction between these components represents a system with a specific aim.

- **12.** Management of personnel: personal development is a key concern in every organization. From the organization's point of view, it is important to have suitable human resources, thus it is also important to provide individuals with opportunities to learn new skills to support the stated objectives.
- 13. Security, hygiene and environment: this element covers all of the activities aimed at ensuring that the organization behaves in an appropriate manner in the context of security, hygiene and environment during the planning and implementation phases of the project.

**Table 1** shows the process that was implemented for the methodology in order to develop competencies in the community of Punta Indio and the competence elements that were chosen in relation to each leader specification applied within the territory. The competencies have a score of between 1 and 5. 1 is the lowest score, which could indicate negative aspects or conflicts within the project; 2 is an average score, indicating a desire to improve; 3 is a good or acceptable score which adds to the project; 4 is very good, very positive attitude and; 5 is excellent.

The scoring criteria were defined by a panel of experts in which the following five entities participated: (1) representative of the National Institute for Agricultural Technology (INTA). Regional centre of 'Cuenca del Salado' based in Chascomús, Buenos Aires Province; (2) representative of the Ministry of Agricultural Affairs of Buenos Aires Province-Rural Development Directorate-; (3) representative of the Department of Rural Development at the Faculty of Agricultural and Forestry Sciences UNLP; (4) representative of the Development Directorate of Punta Indio Municipality; and 5) municipal delegate of Punta Indio Municipality based in the town of the same name (Punta Indio).

### 5.1. Bottom-up focus

Within the bottom-up focus, it is the population affected by specific problems and/or needs, who participate in researching possible solutions and designing strategies that can be applied and implemented during the observation of the results. This focus means that the population provides active, creative and highly committed contributions, when it becomes involved through work teams. The advantage of this focus is that participants are encouraged to think in a more creative way. This enables them to feel involved in the development of the project as they feel that their initiatives are valued. The bottom-up focus shown in Table 2 has been a key element in this research, encouraging participation among the community through themed workshops and surveys, organized with the aim of obtaining different information in response to the problems facing each sector: (1) farming; (2) environment; (3) commerce; (4) tourism; (5) creation of associations; (6) handicrafts; and (7) cultural heritage. As a result, the main problems facing each sector were identified, so that the work could focus on designing the development strategy, establishing the priority axes, development guidelines and actions for the community of Punta Indio. The integration of these aspects of the bottom-up focus with the competence elements suggests an assessment geared towards the success of projects, defining the criteria required to achieve the objectives within the agreed limits.

Competence elements	Leader specifications			
	Bottom-up approach	Creation of LAG	Innovation	
Technical competences				
Success in project management	3	4	3	
Parties involved	4	4	2	
Pro ject requirements and objectives	4	4	3	
Quality	4	4	2	
Project structure	37	/4 //	3	
Teamwork	4	4	3	
Problem solving	3	4	3	
Communication	3	3	3	
Totals	28	31	22	
Behavioral competences				
Leadership	4	4	3	
Behavior and motivation	3	4	3	
Self-confidence	3	3	2	
Creativity	3	4	3	
Efficiency	2	3	3	
Negotiation	4	4	3	
Conflicts and crises	4	4	3	
Appreciation of values	3	4	3	
Totals	26	30	23	
Contextual competences				
Implementing projects and programs	3	4	3	
Permanent organizations	3	3	3	
Systems, products and technology	3	4	3	
Management of personnel	37	3	3	
Security, hygiene and environment	3	4	4	
Totals	15	18	16	

**Table 1.** Development of competences in Punta Indio.

The competencies demonstrated within this focus correspond to these elements: technical, behavioral and contextual. In the technical area, the following competencies were taken into account: project management success; parties involved; project requirements and objectives; teamwork; problem solving; and communication. In terms of behavioral competencies:

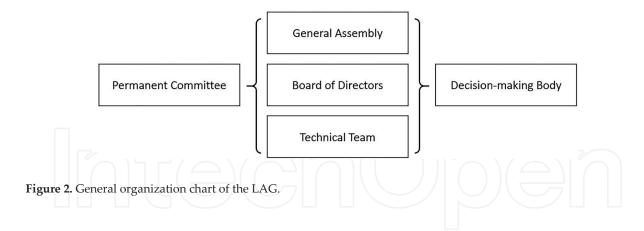
Decisions	Participative elements				
Diagnosis	<ul> <li>Semi-structured questionnaire</li> <li>Questionnaires for key people</li> <li>General workshops</li> <li>Themed workshops</li> <li>Use of participative tools</li> <li>Integration of project management competences</li> </ul> Group dynamics	Objectives:  Identify key development factors  Reach agreement in terms of development priorities for actions plans and projects  Development of competences in the local community with regards to managing rural development projects, based on the Leader specifications for the region of Punta Indio			
Definition of priorities	<ul> <li>Themed workshops</li> <li>Development of tourism and handicrafts</li> <li>Diversification of production</li> <li>Use and preservation of natural resources</li> <li>Stimulating commercial activity</li> <li>Promoting cultural heritage</li> <li>Training &amp; Development</li> </ul>	Strengthen the results of the data			
Priorities	SWOT analysis (strengths, weaknesses, opportunities, Objective: Definitive diagnosis threats)				
Definition	Definition of the competence development strategy in order to carry out rural development projects				
Source: Compiled	by authors.				

Table 2. Participative competence elements from the experience with the community of Punta Indio.

leadership; creativity; negotiation; conflicts and crises; appreciation of values. With regards to contextual competencies: project implementation and permanent organization.

### 5.2. Creation of local action groups (partnership)

The creation and strengthening of the institution was one of the most important factors in promoting local development in the region of Punta Indio. Therefore, it was found appropriate to create a new institution—local action group—or partnership in the community of Punta Indio, as one of the distinguishing and fundamental aspects of this study. The LAG is a form of horizontal cooperation, in which agents and institutions which represent the local society become members, with the purpose of identifying a common development strategy and managing its implementation [52]. In the case of Punta Indio, the creation of the LAG involved bringing together agents and institutions which represent the local society, with the aim of implementing the development strategy in Punta Indio. As a result, a LAG was established in Punta Indio called "Amigos del Parque Costero" (Friends of Parque Costero). The inclusion of competencies in this Development Strategy also provides the possibility of carrying out tasks integrated within the community. In this context, it is important to highlight the LAG's role as an excellent tool for teamwork and as a means of ongoing education [53, 54]. Making decisions that are both in the public interest and for the benefit of third parties lies at the organization's core.



**Figure 2** shows a typical organization chart for a local action group.

The decisions taken by the group based on its technical competencies are supported by a professional support team and, occasionally, by consultancy from local experts. As a result, the LAG takes on all of the competencies for developing the region, establishing a constant relationship with the population, not only to strengthen the development of competencies to implement projects, but also to ensure the sustainability of these projects.

The technical elements that were considered include: project management success; parties involved; project requirements and objectives; quality; project structure; teamwork; problem solving; and communication.

In terms of behavioral competencies: leadership; behavior and motivation; self-confidence; creativity; efficiency; negotiation; conflicts and crises; and appreciation of values. With regards to contextual competencies: project implementation; permanent organization; and personnel management.

### 5.3. Innovation

Rural development's integrative outlook requires innovative responses, so that it does not remain at the sidelines of new economic and social ties [34]. In this case, innovative actions were sought in order to promote the development of the region. The LAGs carried out various actions and projects, a total of 18 (**Table 3**), which were hugely innovative for the region, given that new solutions for the community's problems were sought, promoting economic diversification as well as multisector and multifunctional links.

Here, the work on competencies for researching the innovative nature of project management implied the evaluation of eight elements, of which four were from the technical field: project management success, project requirements and objectives, quality and; project structure. One from the behavioral field: creativity. Three from the contextual field: project implementation; systems, products and technologies; security, hygiene and environment.

Themed areas	Development axes	Measures	Actions
Use and preservation of natural resources	Natural resources	Protection and preservation of the environment	Design and construction of an Interpretation Center and themed museum in the 'Parque Costero Sur'  Creation of a native plant nursery, in order to repopulate deteriorated areas in the 'Parque Costero Sur'
Development of tourism and handicrafts	Tourism	Promoting tourism heritage	Design and installation of signage
			Creation of maps for historical sites which are important for tourism
			Creation of tourist routes
			Organization of a calendar of local festivities
			Creation of a tourist information center
Change in economic activity	Diversification	Improve the perceived value of other local products	Production of aromatic plants
			Production of edible mushrooms
			Strengthen the development of arts & handicrafts, linked to the area's history
			Strengthen the development and transformation of organic products in the area
			Improve honey production
			Development of the farming innovation center
Training & development	Improved human resources	Develop and strengthen knowledge, competences and skills among people in the community	Tree nursery program for youngsters (32 youngsters aged between 12 and 17)
			Arts & crafts workshops (12 people)
			Design workshops for clothing and learning traditional weaving (16 people)
			Creation of a training center for alternative activities in Punta Indio (24 people)
			Development of an innovation center (14 people)

Table 3. Projects implemented by the LAG in Punta del Indio.

### 6. Conclusion

The research on rural development carried out by the UNLP was a result of the university's increased involvement with society and its surroundings. As a result, the university's contribution facilitated work which benefited the community and also reinforced academic training among degree students, through the work experience they took part in across different communities. This work has facilitated the creation of cooperative processes between the university and the community in Punta Indio, with a dual objective: (a) the creation of a development strategy to strengthen the socioeconomic base and; (b) the development of a competence process with the local action group for managing projects according to IPMA standards, based on three leader specifications applied across the region. The purpose of developing competencies in the community is deeply linked to the idea of strengthening the capabilities of the developed group leaders and being at the very heart of project management and development in rural areas. In order to develop these competencies, it was necessary to incorporate a series of factors aimed at achieving the objectives of the development across three areas of competence: technical, behavioral and contextual. From the competence process that took place, it was clear that the leader specification used by the most elements from the three areas is "local action group or partnership." As would be expected, the skills of those who have to decide which projects should be chosen and the reasons why, relate to: the project's requirements and objectives, quality, project structure, teamwork, problem solving, etc., among others elements. All the elements that commit and motivate people's activity and confidence to make their work more reliable ultimately guarantee the sustainability of the activities carried out. The experience achieved the following results: (1) creation of the LAG in Punta Indio: "Amigos del Parque Costero Sur"; (2) creation of a development strategy with 10 main priorities, 17 measures and 154 specific development actions to achieve. The LAG's activities have so far produced 18 projects, focused on the following areas: assessment of local production, training, promoting tourism heritage; protecting and preserving the environment and treating places of interest for Punta del Indio.

The local action groups have great potential in countries such as Argentina, when it comes to carrying out rural development. The creation of these local governance structures is a key element of a new concept of planning for rural development, based on a territorial focus and decentralized management.

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### References

- [1] Coraggio JL. Universidad y desarrollo local. In: Consejo Nacional de Educación Superior (CONESUP), UNESCO y el CIESPAL, editors. La educación superior y las nuevas tendencias; 23–24 July 2002; Quito, Ecuador.
- [2] Sousa Santos B. La universidad en el siglo XXI. Para una reforma democrática emancipadora de la universidad. 1st ed. Buenos Aires, Argentina: Miño y Dávila, Laboratorio de Políticas Públicas; 2005. 88 p.
- [3] United Nations Educational, Scientific and Cultural Organization UNESCO. Global Monitoring Report 2015: Education for all 2000–2015: Achievements and challenges. Paris: UNESCO.
- [4] ICB-IPMA Competence Baseline, Version 3.0. Nijkerk: International Project Management Association (IPMA); 2009.
- [5] Herrera Ortega H. Perfil de competencias del Agente de Desarrollo Local. Definido mediante el método. Empleo tipo estudiado en su dinámica, ETED. Tesis para optar al título de psicólogo y al grado de licenciado en psicología [dissertation]. Universidad de la Serena. Chile:2009. 173 p.
- [6] A Guide to the Project Management Body of Knowledge (PMBOK® Guide). 5th ed. Newtown Square, Pennsylvania: Project Management Institute (PMI), Inc; 2013. 596 p.
- [7] Chinnowsky P, Brown H, Szajnman A, Realph A. Developing knowledge landscapes through project-based learning. Journal of Professional Issues in Engineering Education and Practice. 2006;132(2):118–125.
- [8] De los Ríos I, Cazorla A, Díaz-Puente JM, Yagüe JL. Project-based learning in engineering higher education: two decades of teaching competences in real environments. Procedia-Social and Behavioural Sciences. 2010;2(2):1368–1378.
- [9] De Los Ríos I, Rodríguez F, Pérez C. Promoting professional project management skills in engineering higher education: Project-based learning (PBL) strategy. International Journal of Engineering Education. 2015;**31**(1-B):1–15.
- [10] Barsky O, Gelman J. Historia del Agro argentino, desde la conquista hasta el siglo XXI. Buenos Aires: Grijalbo-Mondadori; 2001. 460 p.

- [11] Rabinovitch JE, Torres F. Caracterización de los síndromes de sostenibilidad del desarrollo: El caso de Argentina. In: CEPAL (Naciones Unidas/Comisión Económica para América Latina y el Caribe), editor. Taller Síndromes de sostenibilidad del desarrollo en América Latina; 16-17 September 2002; Santiago de Chile. Serie Seminarios y Conferencias-CEPAL No. 38; 2004.
- [12] Stratta Fernández R, De los Ríos Carmenado I. Agricultural transformations and depopulation in rural communities of the Pampas Argentina. Estudios Geográficos. 2010;**71**(268):235–265.
- [13] García Pascual F. Políticas públicas y sustentabilidad en las zonas desfavorecidas y de montaña de España. Boletín de la Asociación de Geógrafos Españoles. 2003;41:151–182.
- [14] Sili M. La Argentina rural: de la crisis de la modernización agraria a la construcción de un nuevo paradigma de desarrollo de los territorios rurales. Buenos Aires: INTA; 2005. 108 p.
- [15] Manuel-Navarrete D. Análisis sistémico de la agriculturización en la pampa húmeda argentina y sus consecuencias en regiones extrapampeanas: sostenibilidad, brechas de conocimiento e integración de políticas. Santiago de Chile:CEPAL, United Nations Publications; 2006.
- [16] Gorenstein S. Agricultura familiar pampeana: tramas, territorios y políticas. Revista interdisciplinaria de Estudios Agrarios. 2008;29:1–21.
- [17] CIPAF, editor. Manual de aplicaciones CIPAF y sus IPAF. Buenos Aires: INTA; 2006.
- [18] Carballo González C. Desarrollo Rural. Nuevos enfoques y temas claves a considerar. In: VI Jornadas interdisciplinarias de estudios agrarios y agroindustriales. Eje temático: Instituciones y políticas públicas sectoriales; 11–13 November; Buenos Aires. 2009.
- [19] Piñeiro M, Villareal F. Modernización agrícola y nuevos actores sociales. Ciencia Hoy. 2005;15(97):32-36.
- [20] Manzanal M. Regiones, Territorios e Institucionalidad del Desarrollo Rural. In: Manzanal M, Neiman G, Lattuada M, editors. Desarrollo Rural: Organizaciones, Instituciones y Territorio. Buenos Aires: CICCUS; 2006. pp. 21–50.
- [21] Manzanal M, Nardi MA. Modelos de intervención de los proyectos de desarrollo rural en la Argentina a partir de 1995. In: Schejtman A, Barsky O, editors. El desarrollo rural en la Argentina, un enfoque territorial. Buenos Aires, Argentina: Siglo XXI; 2008. p. 429–525.
- [22] Enfoque de desarrollo territorial. Programa Nacional de apoyo al Desarrollo Territorial. Buenos Aires: INTA; 2007.
- [23] Barsky O, Dávila M. La rebelión del campo: Historia del conflicto agrario argentino. 1st ed. Buenos Aires: Sudamericana; 2012.
- [24] INDEC 2002 y 2008. Censos Nacional Agropecuario 2002 Y 2008. INDEC. Buenos Aires, Argentina.

- [25] Obschatko E, Foti MP, Román M, editors. Los pequeños productores en la República Argentina. Importancia en la producción agropecuaria y en el empleo en base al Censo Nacional Agropecuario 2002. Buenos Aires: SAGPyA-IICA; 2006.
- [26] Obschatko E, Ganduglia F, Román F. El sector agroalimentario argentino, 2000–2005. 1st ed. Buenos Aires: Bib. Orton IICA / CATIE; 2007.
- [27] Feito MC. Agricultura familiar para el desarrollo rural argentino. In: Misiones, Argentina, editors. Avá 23. Editorial Universidad Naciones de Misiones; 2013. pp. 139–159.
- [28] Lattuada M, Nogueira M, Urcola M. Tres décadas de desarrollo rural en Argentina. 1st ed. Buenos Aires: Universidad Abierta Interamericana. Teseo; 2015.
- [29] Tsakoumagkos P. El trabajo agrario en la agricultura familiar de la Argentina, aproximaciones conceptuales. In: RED Sociales; 2014. pp. 1, 2–18.
- [30] Gabellone N, Sarandon R, Claps C. Caracterización y zonificación ecológica de la Cuenca del Río Salado. In: Maiola O, Gabellone N, Hernández M, editors. Inundaciones en la región pampeana. La Plata: Editorial de la Universidad Nacional de la Plata; 2003. pp. 87–122.
- [31] Panigatti JL. Argentina 200 años, 200 suelos. Buenos Aires: INTA; 2010. 345 p.
- [32] Cazorla A. La nueva planificación: hacia una estrategia de desarrollo basada en el Aprendizaje Social. In: Experiencias de desarrollo rural en una iniciativa LEADER. Madrid: Dirección General de Agricultura y Alimentación; 1997. pp. 289–332.
- [33] De los Rios-Carmenado I, Díaz-Puente JM, Cadena-Iñigue J. The initiative LEADER as a model for rural development: implementation to some territories of México. Agrociencia 2011;45(5):609–624.
- [34] Cazorla-Montero A, de los Ríos-Carmenado I, Díaz-Puente JM. The LEADER community initiative as rural development model: application in the capital region of Spain. Agrociencia. 2005;39:697–708.
- [35] De los Ríos I. Innovación para el Desarrollo Rural: la Iniciativa LEADER como Laboratorio de Aprendizaje. Madrid: Comunidad de Madrid; 2002.
- [36] De Los Ríos I, Ortuño M, Rivera M. Private–public partnership as a tool to promote entrepreneurship for sustainable development: WWP Torrearte Experience. Sustainability. 2016;8(3):199.
- [37] Sanchis Palacio JR. Local development and business creation. The role of local development workers in project management. The International Entrepreneurship and Management Journal. 2006;**2**(1):57–78.
- [38] Kerzner HR. Project management: a systems approach to planning, scheduling and controlling. 11th ed. New York: John Wiley & Sons; 2013. 1296 p.
- [39] Meghnagi S. Il sapere professionale: competenza, diritti, democrazia. 1st ed. Milano: Feltrinelli; 2005.

- [40] Morris PWG. The validity of knowledge in project management and the challenge of learning and competency development. In: Morris PWG, Pinto JK, editors. The Wiley Guide to project organization and project management competencies. New Jersey: John Wiley and Sons, Inc; 2010. pp. 193–205.
- [41] Blackburn S. The project manager and the project-network. International Journal of Project Management. 2002;20(3):199-204.
- [42] Cleland DI. Leadership and the project-management body of knowledge. International Journal of Project Management. 1995;13(2):83–88.
- [43] Greer M. ID project management: Tools and techniques for instructional designers and developers. New Jersey: Educational Technology; 1992. 227 p.
- [44] Tinnirello PC. New directions in project management. Florida: CRC Press; 2001.
- [45] Pereda S, Berrocal F. Gestión de Recursos Humanos por Competencias. Madrid: Centro de Estudios Ramón Areces; 1999.
- [46] Cazorla A, De los Ríos I, Salvo M. Working With People (WWP) in rural development projects: A proposal from social learning. Cuadernos de Desarrollo Rural. 2013;**10**(SPE70):131–157.
- [47] Cazorla A, De los Ríos I. Rural development as "Working with People": A proposal for policy management in public domain. UPM: Madrid, Spain. 2012; pp. 29–35.
- [48] Sastre-Merino S, Negrillo X, Hernández-Castellano, D. Sustainability of rural development projects within the working with people model: Application to Aymara Women Communities in the Puno Region, Peru. Cuadernos de Desarrollo Rural. 2013;10:219–243.
- [49] Friedmann J. Planning in the public domain: From knowledge to action. New Jersey: Princeton University Press; 1987. 501 p.
- [50] Herrán Gómez J. Modelo de integración del conocimiento-acción a través del Proyecto de Comunicación para el Desarrollo: 25 años de experiencia en comunidades indígenas andinas en Ecuador [Doctoral thesis]. Universidad Politécnica Salesiana; 2015. Available from: http://dspace.ups.edu.ec/handle/123456789/11234
- [51] Stratta Fernández R. El desarrollo rural en Argentina: evolución y propuesta de un modelo de intervención para las comunidades rurales despobladas de la región pampeana [Doctoral thesis]. Technical University of Madrid; 2011.
- [52] Cazorla A, editor. Planning experiences in Latin America and Europe. México: Colegio de Postgraduados de México. Montecillo; 2015.
- [53] De los Ríos- Carmenado I, Rahoveanu AT, Gallegos AA. Project management competencies for regional development in Romania: analysis from "Working with People" model. Procedia Economics and Finance. 2014;8:614–621.
- [54] De los Ríos-Carmenado I, Cadena-Iñiguez J, Díaz-Puente JM. Creating local action groups for rural development in México: methodological approach and lessons learned. Agrociencia (Montecillo). 2011;45(7):815–829.