

Higher education for rural development:
the experience of the University of Cordoba

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Foreword to the series

Education for rural people is crucial to achieving both the Education for All (EFA) goals, and the Millennium Development Goals (MDGs) of eradicating extreme poverty and hunger, ensuring universal primary education by 2015, promoting gender equity and ensuring environmental sustainability. In 1996, the World Food Summit in Rome stressed increased access to education for the poor and members of disadvantaged groups, including rural people, as a key to achieving poverty eradication, food security, durable peace and sustainable development. The 2002 World Summit on Sustainable Development, held in Johannesburg, also emphasized the role of education.

As the majority of the world's poor, illiterate and undernourished live in rural areas, it is a major challenge to ensure their access to quality education. The lack of learning opportunities is both a cause and an effect of rural poverty. Hence, education and training strategies need to be integrated within all aspects of sustainable rural development, through plans of action that are multisectoral and interdisciplinary. This means creating new partnerships between people working in agriculture and rural development, and people working in education.

To address this challenge, the Directors-General of FAO and UNESCO jointly launched the flagship programme on *Education for rural people* (ERP) in September 2002 (<http://www.fao.org/sd/erp/>), during the World Summit on Sustainable Development. This initiative involves an inter-agency approach to facilitate targeted and co-ordinated actions for education in rural areas.

It is within this framework, and to provide inspiration for the flagship initiative, that the FAO's Extension, Education and Communication Service and UNESCO's International Institute for Educational Planning (IIEP) have jointly launched a series of publications. This series is co-ordinated and edited by David Atchoarena (IIEP) and Lavinia Gasperini (FAO).

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List of abbreviations

EEC	European Economic Community
ECTS	European Community Course Credit Transfer System
ETEA	<i>Institución Universitaria de la Compañía de Jesús</i> (Higher school of economics)
ETSIAM	<i>Escuela Técnica Superior de Ingenieros Agronomos y Montes</i> (Higher school of agronomy and forestry)
EU	European Union
GNP	Gross national product
HESORD	Higher Education System on Rural Development
IMRD	International Master of Science in Rural Development (<i>Master Internacional en Desarrollo Rural - MIDR</i>)
LAGs	Local Action Groups
LEADER	<i>Liaison entre actions de développement de l'économie rurale</i> (Links between actions for the development of the rural economy)
MGDR	<i>Master en Gestión del Desarrollo Rural</i> (Master's in rural development management)
TSDR	<i>Titulación Superior en Desarrollo Rural</i> (Rural development academic degree)
UCO	University of Cordoba

Executive summary

As an essential part of a changing world, universities face a number of challenges linked to the need of adapting to the new demands of society. The emergence of a new conception of society, the 'learning society', is introducing changes in teaching, in the traditional role of teachers and in the pedagogical and technological tools used. Concepts such as self-training, self-education, on-line learning or life-long learning, are radically transforming the traditional mission of universities. In addition, higher education in agriculture has to cope with the diminishing importance of agriculture in the economy.

The region of Andalusia (southern Spain) is relatively well known for its farming sector and its rural activity. The University of Cordoba (UCO) has great experience in, and a strong vocation for, the agribusiness sector. The Higher School of Agronomy, the Veterinary Faculty and the Science Faculty are leading centres of higher education and research in this field. For these reasons, the crisis affecting farming and the decline of rural areas are matters of great concern to this university. As a combined effect of both factors, the first signs of a drop in demand for farming post-graduates became apparent in the late 1980s. This problem was confirmed by the post-graduate demand crisis a few years later.

This situation led a group of teachers from the Higher School of Agronomy to reflect on the need to diversify the student curricula. A growing interest, coupled with greater involvement of different institutions and organizations within the framework of rural development on a European and international scale, made this area a new source of employment. Since a thorough response to the challenges offered by the new approach to rural development required properly trained professionals with a global view of the problems affecting rural areas, rural development began to be considered as a new training and teaching opportunity.

After a long process of reflection by university staff and major stakeholders in rural development, a decision was taken in 1995 to implement a pilot project. The higher education programme on rural development at UCO (*Titulación Superior en Desarrollo Rural – TSDR*) was thus launched, encompassing a broad range of subjects, with a strong emphasis on methodological tools, and including subjects closely related to the rural world and the social sciences. The new curricula emphasize a new approach, introducing new subjects from a multidisciplinary point of view.

This process did not occur without problems. A number of difficulties, internal and external, had to be overcome. However, the high level of acceptance of the graduates of this programme in the labour market and the coherence between the UCO offer and the needs of the sector has led to a broadening of the range of formative products. The package known as HESORD (Higher Education System on Rural Development) comprises, besides TSDR, PhD courses, Master's degrees, short courses, distance learning and life-long learning strategies.

In addition to the new education demands, the continuous need to adapt to current challenges and the importance of introducing innovations led to the introduction in 2001 of important reforms in teaching methods. These reforms also concern the teaching materials, and the harmonization of the new programme with the main national and international developments and tendencies.

The case study that is described here shows the process that was followed and the different changes that were introduced by the University of Cordoba in order to adjust its training in agriculture to the new demands of society and to the new international context, incorporating a new vision that is more in tune with the changes and challenges currently faced by universities.

Chapter 1

Introduction

Universities were originally set up as a response to certain needs of society which no other institution or group could meet. However, this role, which clearly differentiated the functions and activities of universities, has become blurred. With the passage of time, other institutions have begun to concern themselves with research and teaching, sharing these functions with universities or on occasion even surpassing or substituting them. For these reasons, universities today must rethink their social function. In order to do so, they must explain questions such as their 'mission', the 'vision' of this mission and their institutional 'commitment' towards society. Something which was considered obvious for a long time must now be reformulated and may be the cause of comparative and competitive advantages between universities, since, for the first time in their history, these institutions face a profound questioning of the principles which have governed them up to now.

The 'mission' of the university is linked to intellectual excellence developed through the three essential components of university life: research, teaching and influence (Marcovitch, 2002). This mission must adapt to the process of change of the society in which we live, although not all universities are capable of achieving this to an equal degree. The tendency to fall back on themselves and the need to do so in order to solve budgetary problems often explains the difficulty of university institutions in responding to new demands. However, at the present time, this mission must be capable of going beyond the most local or localist approaches so as to respond to the needs that arise from the greater interaction between sectors and territories, which is a part of globalization.

In the process of formulation of the mission, which can be explicit or implicit, different components are involved, among which the search for an independent model and the vision of the future role of the university stand

out. In this process, teachers play, as they must, a fundamental part, together with the other groups which make up the university community.

The ‘commitment’ of the university means its active participation in the development process of society. This role involves on occasion the expansion and the improvement of the relationship of the institution with society, but at other times it requires a profound revision of the mission of the university so that its lost role can be recovered. In order to ensure that the part the university plays is as active as possible, it must be directed towards teaching skills (the function which many universities have been fulfilling almost exclusively for over a century), providing an education in values, and building the capacity to reflect on the future (functions which have been eroded with the passage of time). Therefore, the university’s commitment represents a kind of ‘contract’ between the university and its surroundings, which is one of the best ways for the university to establish and carry out its real ‘social role’.

The ‘vision’ of the university is the consequence of both its mission and commitment since this can refer to the way society perceives the role of the university, or the way the university intends to do what it does and how this is understood.

Formulating and developing correctly the university’s mission and commitment means a series of challenges that particularly affect higher education, which is facing the most radical transformation and renovation in its history. This is mainly due to the following reasons:

1. *Knowledge* not only changes within each discipline but also in its overall coherence and complexity. It is not possible to treat the complexity and the dimension of scientific findings if knowledge remains confined to the traditional disciplines.
2. *Access* to knowledge is changing; it can be reached from all directions and at any moment, but its abundance does not mean that it is always validated, organized, and structured. The problem for education today is not where to find information but how to offer access to it without exclusion and, in turn, to teach/learn how to select it, assess it, interpret it, classify it and use it. This conception profoundly modifies teaching and the traditional role of the teacher.

3. *Technological tools* free the university from limitations of time and space. The traditional class consists of placing a group of students and a teacher in the same place at the same time. Today it is possible to organize class activities in different places and at different times.
4. *The role of the teacher* is no longer the same, and society's expectations in this respect are increasingly numerous and complex. The teacher is the main agent of the transformation of the educational system; he/she must train the citizens of tomorrow and make them acquire scientific knowledge.

In the present context of change, a new concept of society is emerging which some call the 'learning society' due to the central role played by knowledge in the productive process; others prefer to refer to it as the 'information society'. Independently of which terminology is used, it is evident that global changes are forcing a change in the traditional role of teaching and are redefining the part played by universities.

As a consequence of the above reasons, the most important challenges faced by higher education today are:

1. *The change from an industrial society to an information society.* The future of countries and their positioning in the international context will largely depend on the solidity of their systems for training human resources and their technological and scientific research systems. In order to face these challenges, universities must widen the space for the production of knowledge and adopt new approaches which permit greater connection between the training that students receive and the new demands of society. Training in traditional disciplines is joined today by knowledge of new technologies and languages. Information and communication technologies must be fully integrated into university teaching methods. Moreover, it is necessary to internationalize education, on the one hand allowing students to carry out part of their studies in universities in other countries, and on the other hand encouraging teacher exchanges.
2. *Going from simply demonstrating knowledge by the issuing of certificates to training students in self-learning and fostering the integral development of their human capacities.* Contemporary society and globalization impose a vocation for change which obliges the university to incorporate imagination and creativity, and which incites it to no longer

be only at the service of a narrow professionalization, as has unfortunately been the case up to now. Future graduates must be accustomed to work in inter-disciplinary teams, have a satisfactory understanding of world problems and speak at least one foreign language.

3. *Complementing knowledge based on the acquisition of information with self-learning.* The new teaching methodologies must encourage students to learn to work, do research, invent, create, and not limit them to continue memorizing theories and facts. In other words, the students must participate in the educational process. In order for them to do this, they must prepare themselves for 'self-training', 'self-education' and 'self-assessment', that is, they must assume the responsibility for orientating themselves and taking control of their own training. The important thing is that it is really the students who acquire the learning skills and that these become a genuine means for development of the individual or of society, in such a way that the students can acquire useful knowledge, capacity for reasoning, aptitudes and values (UNESCO, 1990). This new conception implies that educators become facilitators and also that they work as part of a team with their students so as to identify and select problems. Students must learn not only to memorize but learn to use all means of information available to them, whether this is through libraries, national and international databases, the radio, the cinema, television or Internet.
 4. *Training students so that they consider life-long learning and rotating periods of work with periods of training to be natural.* Life-long learning means having at one's disposal the intellectual tools that are necessary for adapting to the constant changes and the varying requirements of the job market and for protecting oneself against the obsolescence of knowledge, which is occurring at an increasingly rapid rate. Students now need to be trained for an unstable work environment and probable rotation, not only between jobs but sometimes even between types of occupation or economic sectors.¹ In order for this to be possible, not only are more skills needed but frequently new and different ones, which place new and different demands on educational and professional training systems. Higher education will play a fundamental part in encouraging the capacity for innovation and creativity. A suitable balance between
1. Recent trends suggest that any university graduate must be prepared to change jobs or renew studies five or six times during his/her working life, at least in the European Union.

general and specialized training is indispensable, together with emphasis on learning processes rather than on instruction or teaching processes. The new ‘curricula’ must include general training cycles, basic training cycles and specialized training cycles;

5. *New tools and skills.* New jobs are bound to require flexibility, creativity, autonomy, innovation, speed of adaptation to change, life-long study and team work. These demands imply continuous adaptation to challenges such as handling new situations, responsibility, participation, pluralism or changing values. The university must prepare students physically, intellectually and emotionally so that they can meet these demands when they graduate.

The new context is characterized by uncertainty and by the speed at which changes occur. Therefore, educational systems must be capable of educating for change and uncertainty. The acceptance of change as an inherent characteristic of higher education institutions implies accepting flexibility as a work norm. In turn, by realizing their potential and having a forward-looking vision for their work, universities will be able to contribute to the elaboration of future projects for society, which must be inspired by solidarity, fairness and respect for the environment.

This new vision of education means profound changes in the work of teachers and their initial and continued training. It is vital to strengthen research and teaching skills, to develop inter-disciplinary mechanisms, to make academic structures more flexible and to introduce life-long learning as a leitmotiv among teachers, members of the academic community, and students. Universities and higher education institutions in general must become “life-long education centres for everyone” (UNESCO, 1998).

Accepting this challenge involves a series of transformations in academic organization and work methods. Educators must essentially be designers of learning methods and contexts, capable of working as a team together with the students. In this way, educators, as they train, are training themselves, and they learn at the same time as they teach. It is necessary to set up solid and extensive programmes for the teaching personnel so that they can improve, stay up to date academically and adapt to this new situation.

Finally, another challenge derives from the declining birth rate in the European Union (this situation is particularly serious in Spain). This means that within a few years there will be a noticeable drop in student numbers, unless education systems are set up to permit continuous training, a periodic return to university to update knowledge, the expansion of studies with higher training cycles or specialization studies, etc.

Post-secondary training is conceived more and more as a whole, systematically organized in such a way that interrelations between the different training modalities and the world of work are seriously contemplated, together with possible lateral solutions, vouchsafed by certificates or intermediate diplomas. Higher education in the twenty-first century will need to greatly diversify its training offers and opportunities. In order to do this, however, a degree of dynamism and adaptation must be incorporated, which is rarely present in the universities of today.

The establishment of closer and fruitful collaboration between universities and the productive sector also makes it possible to diversify ways to finance higher education, thus achieving growing participation of the private sector in the overall financing of higher education, whether public or private.

The experience of introducing a 'Higher Education System on Rural Development' (HESORD) into the University of Cordoba (UCO) represents an effort to adapt to all the challenges and trends described. In fact, HESORD was not initially designed as a comprehensive system, but as a single higher education initiative. It has been, however, the continuously increasing demand for new products that has encouraged the launching of a wider educational offer.

This programme of studies is undergoing a complex process which concerns three strategic aspects of the current university: mission, commitment and vision. Furthermore, as explained below, this process is intended to be as faithful as possible to modern trends in higher education, and to the role that agriculture and the rural world will play in society in the twenty-first century.

Chapter 2

Background

The social role which agriculture is expected to play in the initial stage of the development processes of most countries, has generally been the intensification of production so as to guarantee food security. But this main objective has frequently been accompanied by other objectives, no less important, such as: a) the consolidation of a social group responsible for production; b) the integration of the primary sector in the value chain, together with other productive sectors; c) the liberation of labour in rural areas, to be occupied in other sectors and/or territories; d) the accumulation of capital and its transfer to other sectors; and e) the improvement in quantity and quality of the level of consumption.

Protectionist policies for the sector – in those countries which have been able to afford them – have aimed at inducing or encouraging these objectives as far as possible in each case. The strategy of ‘substitution of imports’, followed not many decades ago by countries such as Brazil, or the European agreement on the desirable model for family agriculture, that contributed to the Common Agricultural Policy of the European Union, are only two, but very different, examples of these additional objectives and of public policies established to achieve them.

The modernization process, which world agriculture has experienced since the green revolution, has been possible, among other factors, because of the introduction of higher education systems linked to systems of research and development, together with the dissemination of research results. Different countries, according to their degree of relative development and their own strategy for the agricultural sector, have attached lesser or greater importance to one or more of these factors.

In the development process experienced by Spanish society in the second half of the twentieth century, agriculture played a fundamental role for several decades as a food-producing sector, and at the same time fulfilled other important complementary functions, which permitted and accelerated industrialization and the modernization of the country. The realignment of the agricultural landscape, the construction of important irrigation schemes and the introduction of high productivity crops and animal breeds were some of the direct achievements of the decades between 1960 and 1980. The indirect effects, however, were the modification of the agricultural social fabric, the increase in productivity of the sector, a certain stagnation in the process of structural adjustment, and the consolidation of a dual agriculture in Spain.

The training of human capital was very important in the transformation of Spanish agriculture, and agricultural engineers played a major part in that transformation. The Central School of Agriculture, located in Madrid, the capital of Spain, had for many years a monopoly on training agricultural engineers.² So as to be coherent with the principles of the green revolution, the training of a 'classic' agronomist concentrated on the processes of biological production and on infrastructures and installations. The training system was inspired by that of the French *Grandes écoles*, which involved a tough selection process for students, and teaching which attached great importance to solid training in basic subjects such as mathematics, physics and chemistry, and in classic engineering subjects such as hydraulics, mechanics, electrical engineering or construction. Only from the mid-1960s was it considered necessary to expand the content of the study programmes to include new subjects and specialities which aimed to cover the growing diversity and complexity of agriculture.

2. The model of higher education for agriculture which exists in Spain is based on that of France. The French system of *Grandes écoles* (to which higher studies in agriculture belong) is linked to the Ministry of Agriculture and produces graduates with an 'agricultural engineer' degree. These engineers have undergone higher education training in agronomy, equivalent to the agronomy departments of the Anglo-Saxon countries; this is complemented with additional studies in subjects typical of engineering. This French model is followed in Spain, with the difference that the higher schools of agronomy are answerable to the Ministry of Education and not to that of Agriculture. Because of this, the Spanish 'agricultural engineer' degree can be considered as equivalent to the Anglo-Saxon 'agronomist' qualification, with the differences and peculiarities we have mentioned.

The elitist nature of the training of agricultural engineers, the high level of this training and the technical successes they achieved for many years created a demand for these professionals which greatly exceeded the supply of agricultural engineering students leaving university. Many of these engineers were traditionally absorbed by the state sector and the remainder found work without difficulty in private companies or established themselves as self-employed technicians. All these circumstances contributed to making the profession of the agronomist one which enjoyed great social prestige and high salaries on the job market for many years.

This prestigious situation makes it possible for us to speak of the ‘golden age’ of Spanish agronomy which lasted from shortly after the Spanish Civil War (during the 1940s) up to almost the mid-1980s. During this period, agriculture continued to become modernized, the state increased public spending to encourage development of the sector, and agricultural engineers were therefore an essential part of this process, both as civil servants of the public administration and as self-employed professionals. Institutions of higher education in agriculture, however, were still oriented mainly towards technical and scientific matters, and producing a supply of agricultural engineering graduates that was insufficient to meet the demand.

The 1980s brought two important changes to Spain which affected the social role of agriculture and that of agricultural engineers: the arrival of democracy and membership of the European Economic Community (EEC). With democracy and the new Spanish Constitution, a decentralization (almost federalization) process began which led, among other effects, to a dramatic increase in the number of higher schools of agronomy. When Spain became a member of the EEC, national agricultural policy began to be gradually replaced by European policy, and the Spanish agricultural market began to be more and more immersed in the major flows that were affecting the whole of European agriculture.

As a result of these changes, a radical transformation of the agricultural sector and the rural world was initiated, which in time would affect the role of agriculture, the legitimacy of agricultural policy, and the direction that the systems and graduates of higher education in agronomy and related subjects would take.

As things stand now, the rural world can no longer be considered to be either a productive system or an isolated system. The penetration, to a greater or lesser degree, of globalizing and urban rationales in rural areas has given rise to profound changes in their economic, social and institutional structure. These changes have broken the traditional balance between the supply and demand of agricultural engineers in Spain; at the same time, their traditional expertise can only partially respond to the new functions that the society of today demands of the rural world.

As far as economics are concerned, the interaction between different means of production and development models is generating a diversity of rural spaces which are trying to adapt to the new international situation by appraising their resources and specific characteristics. Socio-culturally, the consideration of rural areas as a reserve of traditional, cultural and environmental values is imposing new patterns of use and consumption. Institutionally, the different position of institutions and local actors is favouring the appearance of new dynamics that are transferring skills and power to these areas and transforming the rural landscape. In short, the influence of a series of forces of change on the rural world is becoming more and more noteworthy; these forces are transforming the traditional operating logic of rural areas and are redefining their space, both physically and functionally.

Chief among these changes is the radical transformation in farming systems. The traditional role of farming has been distorted all over the world. This activity, which used to be a common focus for rural communities, has both driven their economic activity and dictated land use. Today, however, the economic and social role of farming is subject to a number of difficulties. Farmers are marked by a sense of disenchantment and mistrust with respect to the future, and their numbers are continually falling. The wariness of many farmers highlights the crisis that this age-old profession is experiencing and the obsolete nature of existing agricultural models.

A series of events indicates the changing influence of agriculture and consequently its changing social and political importance. These include, most notably, the constant decline in the number of jobs in agriculture, the modest contribution to the gross domestic product, the increasing environmental degradation caused by greater productivity, and the mistrust of consumers

due to the lack of health guarantees with respect to certain products (prompted, among other things, by BSE, dioxins, the excessive use of pesticides and hormone-treated meat).

The disappearance of agriculture's traditional role, and the need to define a new one, make it necessary to review the traditional contract between 'society' and 'agriculture'. In order to draw up this new contract, the functions of the farming sector must be reformulated in response to the new needs and demands of society. The rural community must assume new functions and go beyond its traditional role as a supplier of raw materials in order to be able to meet these new demands, which include maintaining the ecological balance, sustaining employment and the socio-economic fabric, supplying leisure and recreational activities, producing quality food, protecting the environment and the local heritage, and preserving diverse cultures and traditional activities.

However, the social and economic reworking of rural functions and activities is not an easy task. The gradual replacement of production targets, traditional in rural areas, by consumption targets linked to the role of the public sector in rural areas, is drawing agriculture into a crisis of values, which requires proper articulation at all levels in order to assume this new balance between the different functions that are demanded of agriculture.

Farming has to be understood as a 'multifunctional' activity capable of integrating new approaches that are now taking shape in rural areas; hence, there is a need for integrated policies capable of going beyond the farming sector and overcoming imbalances that exist in rural areas by harmonizing the aims of all the different agents that are involved in the future of these areas.

Farming policies, which have traditionally been the main instrument used by the public sector to alleviate problems in rural areas, have tended to adopt an extremely sectoral approach, which is no longer suitable for understanding, or responding to, the scope and diversity of problems affecting rural areas today. It is precisely this sectoral approach that hinders the interpretation and analysis of the causes and effects of the changes taking place in rural areas. Awareness of the importance of the rural world's problems has led to the design and implementation of a new European rural policy, the ultimate aim

of which is to define the new role of rural areas in society, and to improve the standard of living of their inhabitants.

The greatest challenge faced by rural areas in this situation is how to find a response and a position which will allow them to deal with the various changes they are subjected to. These can be summed up as: a) a loss of autonomy in the face of the globalization processes, which mean that decisions made outside the rural milieu have an increasing effect on its future; b) the elimination of barriers due to new technologies which make it possible to directly interconnect elements worldwide; and c) the redefinition of limits between the rural world and the urban world, and of the differential characteristics of each of these spaces, encouraged by the inter-penetration of both ways of life.

In order to satisfactorily address the challenges of globalization, it is vital to establish a new framework of economic, social and institutional relations and of the use of space and resources.

New policies for the rural world must be capable of responding suitably to these challenges. They must therefore include: a) a territorial approach, both in planning and design, and in their application; b) a new distribution and hierarchy of responsibilities, thus encouraging a new framework of relations, an integration of the bottom-up and top-down approaches, the emergence of new forms of participation of civil society and improvement in inter-relationships between the public and private sectors; and c) the use of new work methodologies which allow learning by doing, the introduction of flexible and adapted solutions, the use of assessment and feedback tools, and the assimilation of information that has been gathered on an appropriate scale for understanding the processes and dynamics which are occurring in the rural world.

To conclude, the changes and challenges faced by higher education systems, due to the effects of globalization, converge with those affecting agriculture and the rural world. Because of this, designing a modern higher education system oriented towards rural development that can provide answers to these challenges, is not only desirable, but possible, pertinent and timely.

Chapter 3

The University of Cordoba prior to the change

The region of Andalusia (southern Spain), especially the province of Cordoba, is relatively important for both farming and rural sectors. The University of Cordoba has great experience in, and a strong vocation for, the agribusiness sector. The Higher School of Agronomy, the Veterinary Faculty and the Science Faculty are leading centres of higher education and research in this field. For these reasons, the crisis affecting farming and the decline of rural areas are matters of great concern to the University of Cordoba.

As has been explained in the previous section, all Spanish agricultural engineers were traditionally trained at the Central School of Agriculture in Madrid. This situation was maintained until the 1964 Study Plan was approved, when the contents of the degree course were diversified and when the decision was taken to establish two other schools in regions where agriculture was very important both economically and socially, and that had great productive potential.

Andalusia (in the south) and the Valencia region (on the east coast of Spain, on the Mediterranean Sea) are the areas where the two new higher education centres for training agricultural engineers were established. While the Cordoba School was created to support the modernization process of an agricultural system based on extensive crops and olive groves, the Valencia School was founded with a vocation to develop intensive production based on citrus fruits and irrigation crops. This was the first time that a regional specialization arose in Spain which aimed to train agricultural engineers by providing them with more detailed knowledge of the most important issues for each region.

The Higher Education Centre for Veterinary Science in Cordoba, which was founded in 1847, is one of the oldest in Spain. For over a century it was the only institution offering higher education in the city. With the inauguration of the Higher School of Agronomy in 1963, the supply of graduates specializing in the primary sector was to increase. Not long afterwards, the University of Cordoba was established in 1972, taking advantage of the prestige achieved by the first two centres and defining itself as “a university with a strong agro-food and scientific vocation, committed to the development of its social environment”.

Faithful to this initial ‘mission’, the Higher School of Agronomy of Cordoba achieved a considerable professional reputation within a few years after starting its activities. The contracting of young highly-qualified teachers from the Madrid School, and the arrival of some researchers who had completed doctoral studies at European and North American universities, was the strategy used for rapidly earning the Cordoba School a reputation for scientific excellence. The creation of the University of Cordoba made it possible to obtain appropriate resources for equipping laboratories and acquiring technically advanced instruments and equipment.

The quality of its human resources, the investments in infrastructure and the high motivation of the academic teams had the effect of opening up the university to its surrounding area and of producing a great demand for agricultural engineers from Cordoba, which began to displace the demand for Madrid graduates, prevalent for many years.

However, the opening of the University of Cordoba also had negative effects. The inauguration of these new programmes and degree courses began to cause competition for public resources financed by the state. The increase in the number and diversity of the subjects covered (including engineering, health sciences, natural science, law, philosophy and the arts, etc.) meant a weakening (never recognized officially) of the ‘agro-food’ vocation of the University, without it being substituted by another vocation which was equally clear and efficient. This loss of personality has had an effect on investment in human resources and scientific material for the Cordoba School of Agriculture.

While this was happening within the University of Cordoba, a crisis in the agricultural sector and decline of the rural world were becoming apparent all over Europe. As a combined effect of both factors, the first signs of a drop in demand for agricultural engineers became apparent in the late 1980s, which was consolidated by the labour crisis a few years after that. Parallel to this change in tendency in the 'output market', another change was induced in the 'input market'. In other words, the decreasing work opportunities for higher education graduates led to greater pressure on the third cycle of university studies and many departments of the School of Agriculture were overwhelmed by the demand for doctoral courses. Within a few years, there was a significant increase in the number of graduates with doctorates. However, the greater supply of candidates with doctorates on the job market was not accompanied by a change in contracting policy, and much of this energy was either dissipated (i.e. these professionals went to other universities or to private companies) or lost (i.e. they accepted non-academic employment beneath their skill and salary levels).

The most negative point of this process was reached when the third cycle was perceived to be an alternative that did not provide solutions, and the students felt that they were merely delaying their incorporation into the labour market. From this moment on, the renewal of academic staff of some departments was going to be a problem in that the number of doctoral students fell dramatically, and this would lead in the medium term to great difficulty in contracting professors, since all professors of higher education programmes must have doctorates.

Chapter 4

What caused the process of change?

In the early 1990s, the Andalusian regional government asked a large group of researchers and experts to draw up a document to examine the growing debate on rural development in Andalusia. This became a concern because of the problems that were affecting the agricultural sector at the time and the great importance that this sector had in the region.

This working group was led by teachers from the University of Cordoba and resulted in the publication in 1993 of a document entitled *Bases para el Plan de Desarrollo Rural de Andalucía* (Andalusia Regional Government, 1993). However, different political vicissitudes meant that the 'Rural development plan', which was to derive from this process of discussion and reflection, was not set up.

Nevertheless, the particular sensibility of the members of this group and the inter-relations that arose between them during the intense period of time they worked together, encouraged them to continue the process of reflection they had initiated. Given the academic background of many of them,³ together with the notable deficiencies in education and training they detected while drawing up the document, they decided to use their experience to set up an academic activity which would not depend on different political motivations.

In this spontaneous and voluntary manner, an academic group was established to reflect on the need for specific education and training in rural development, with the aim of helping to solve the rural problems of the region. As a consequence of the work of this group, the decision was made to design

3. Most of these professors belong to the Department of Agricultural Economics of the ETSIAM and the Faculty of Economic Sciences, the ETEA, attached to the UCO.

a series of training activities in rural development, among which stood out a multidisciplinary programme of higher education open to graduates or students from a wide range of degrees so as to overcome the isolated vision offered by traditional qualifications. This group thus had a ‘trigger effect’ on the process of initiating university studies on rural development.

The reflection process of the group provided a deeper knowledge of the weaknesses and strengths related to the development of rural areas and their education and training needs. In the following paragraphs these strengths and weaknesses have been classified as external or internal factors influencing the introduction of an academic initiative in rural development.

4.1 External factors

The above-mentioned changes in rural areas and farming systems have made possible great progress in rural development programmes. In the last few years, the improvement in European Union rural development policy, as well as in policies implemented by the Spanish Regional Government, has been outstanding. Concern expressed about the situation in rural areas and the solutions proposed for them has been steadily growing. Regional, national, and European governmental institutions have expressed a growing commitment towards the rural world, and new policies have been implemented to provide for its needs.

This focus has led to an increasing social, academic, political and institutional interest in the problems facing rural areas and in potential solutions, with greater involvement of different administrative authorities and the creation of new structures for a framework of rural development.

This growing interest, coupled with the greater involvement of different institutions and organizations within a framework of rural development on a European and international scale, make this area a new ‘source of employment’.⁴ However, a thorough response to the challenges offered by

4. Understood as a means to maintain young people in rural areas by offering them some job opportunities related to the new functions of rural territories, as stated in the *White paper on growth, competitiveness and employment* (European Commission, 1993).

this new approach to rural development requires properly trained professionals with a global view of the problems affecting rural development; these people must be able to work with both the private sector and at various echelons of public administration, and they must be familiar with state-of-the-art techniques and instruments.

4.2 Internal factors

Regarding the internal debate at the University of Cordoba, several different arguments can be identified:

- Some staff members of the University had an awareness of the relevance of rural changes for the University. The close relationship of several professors at the University with the rural world and new international trends made it clear that changes were necessary and that diversifying the educational offer was important in order to be able to meet the new demand. They believed that the quality and capacity of human resources involved in decision-making on rural issues are key strategic factors. For these reasons, they opened a debate on the pertinence of introducing changes to the curriculum offered by the Higher Education in Agriculture programme.
- There was a need to diversify the curriculum in order to increase student job opportunities. The employment crisis which agricultural engineers began to face in the 1990s set off a series of strategies designed to introduce diversification that would allow specialization in other disciplines, while maintaining the traditional agricultural engineering programme.
- Another important factor was the commitment of the University to society. From the beginning, the University of Cordoba has felt itself to be an integrated part of Andalusian society and has made serving the needs of this society one of its priorities. Given that the new reality of the rural world requires the collaboration of suitably trained professionals, the possibility of introducing a training programme in this field was well received by the governing bodies of this university.

Chapter 5

Starting the process

Once the importance of implementing a Higher Education System on Rural Development at UCO was agreed on, the first step was to characterize the often imprecise demand for rural development professionals. The methodology to do this had two objectives and was divided into two phases.

The first objective was to identify the demand for graduates specialized in rural development, and the second was to define the most suitable graduate profile and course contents according to the topics that had to be learned and functions performed. The last point was of particular interest given the lack of experience in teaching this subject in Spain.

To reach the established objectives, the first phase consisted of a survey carried out among companies and public and private institutions involved in the rural community, which could be potential employers of professionals with top skills in rural development. This survey was launched at the European, national, regional and local levels.

The second phase involved contrasting the survey results by means of a series of interviews and debates with a large number of academic, social, institutional and business representatives.

The results of this research highlighted the awareness that companies and institutions had of the need for this type of education, and indicated the interest and general acceptance that the different representatives who were interviewed expressed for this initiative.

To get a sense of the potential demand for graduates in rural development, the following information may be helpful. Andalusia covers almost 20 per cent of the Spanish area (about 500,000 km²). The overall regional population

is about 7.5 million of which 53 per cent live in rural areas.⁵ In addition, the relative importance of the rural territory in the region is very high, representing 90 per cent of the regional area.

Collective initiatives for rural development were implemented through a kind of private organization known as Local Action Groups (LAGs). These were founded by different administrations and sponsored by local actors. Currently there are 50 LAGs in Andalusia. In addition, a number of municipality-based rural development structures function with a similar objective. All of them are already employing technical staff who very often lack specific training in rural development.

Some initiatives implemented by the private sector in rural areas relating to the diversification of activities, environmental issues, opportunities for women or young people and many others areas, are also seeking workers with a background in rural development.

In terms of the desired professional profile, the research results highlighted the emphasis that participants placed on the need for a study programme based on comprehensive academic knowledge. It is interesting to note that one of the arguments used in this respect was that despite the availability of some non-academic studies related to rural development in Spain (such as vocational training, courses and seminars), there was no university course capable of providing students with the skills necessary for taking on the new tasks envisaged for rural areas.

Taking into account the survey outputs, a suitable professional profile for future graduates emerged. A number of skills and competences related to the role that graduates should play can be distinguished in this profile: a) planning rural development at different levels, from local rural development groups to higher administration levels; b) shifting from a sectoral approach to a territorial approach in the different initiatives undertaken in the area; c) integrated co-ordination of the different activities, in order to obtain complementarities and synergies; d) promoting sustainability at economical, social and environmental

5. According to official regional figures, rural population refers to those living in towns smaller than 50,000 inhabitants.

level; e) encouraging the involvement of local people as a means of fostering the social and economic revitalization of rural areas through creating activities and reinforcing competitiveness and access to markets; f) searching for new opportunities based on endogenous and bottom-up development; and g) animation and training of rural people as a means of improving local capacity building, empowerment, community leadership and governance.

The decision was therefore taken to implement a second-cycle higher education programme⁶ (*Titulación Superior en Desarrollo Rural – TSDR*), encompassing a broad range of subjects, with a strong emphasis on methodological tools and including subjects closely related to the rural world and the social sciences.

The decision to implement a second-cycle higher education studies scheme was made according to the academic benefits expected from accepting student applicants from a wide spectrum of previous degrees. This was to guarantee a multidisciplinary approach and enable students to complete their education by focusing in greater depth on aspects specifically related to rural development. However, the diversity of prior studies also made it difficult to establish a uniform method of access to the courses.

When the UCO decided to introduce this new approach, one of the main challenges it had to face was that there were no equivalent academic references on which to base its new programme. Although some Master's degrees as well as some university short courses were available in this subject area, the decision to develop a second-cycle programme was a pioneering initiative. It was therefore necessary to start from scratch when defining course content and the time to be allotted to each component. In this respect, the results of the survey were of great assistance in defining the profile of future graduates.

6. University education in Spain is based on educational cycles. The first cycle corresponds to the first three years of university education, and depending on the type of education selected; an intermediate level diploma may be obtained at the end of the first cycle. The second cycle consists of two further years of undergraduate study. At the end of this period, a degree or higher education diploma is obtained. The third cycle corresponds to postgraduate studies such as doctorates or master's. In order to be accepted for a higher cycle, students must hold a diploma confirming successful completion of the previous cycle.

Chapter 6

How was the idea of change publicized?

The process of publicizing rural development studies was carried out both within and outside the UCO. Internally, once the pilot group had decided it was appropriate to set up the new study plans, the acceptance of the idea on the part of the UCO teaching staff and their availability was analyzed. The idea was to expand social support for this innovative project within the University. It was therefore decided that this degree could be supported by all departments and teachers who had knowledge of the subject and were particularly interested in it. A period of contact was initiated with all teachers who might be interested; they were informed in detail of the reasons for conceiving the new higher degree course and of its philosophy.

With this initiative an enriching debate process began which brought together opinions and ideas of many interested teachers and made it possible to agree on the crux of the new project. Moreover, agreements were reached on the subjects that the study plan would contain and on the exact contents of the courses, so as to avoid omissions, repetitions and overlapping. The main difficulty in this phase was designing the contents of each course since in most cases they had to be designed *ex novo*.

Initially the idea was welcomed enthusiastically, and practically all the departments concerned with rural development, whether directly or indirectly, participated in the designing and setting up of the degree programme.

As for the external dissemination of information on UCO's study programme on rural development, an initial advertising campaign was carried out in the press and among UCO students and personnel. This campaign was aimed mainly at motivating possible interested parties to enrol in the study courses. This simple initial dissemination campaign attracted a sufficient number of students to begin the pilot scheme.

Subsequently, different channels were used to introduce both the studies programme and the profile of the graduates. One such channel is the Rural Development Research Group, which is an extremely active group, well-known for both its research and fieldwork. This group has done work for different public administrations (from the local administration level to the European Commission and the European Parliament), provided technical assistance to different rural development groups, and established agreements with international bodies, etc.

Within these dynamics, it was always considered a priority to provide information on all these bodies and institutions, and on the training and educational activities set up within the UCO, and to involve students and graduates in these areas.

This approach has a dual objective. On the one hand, it aims to develop a link with the labour market and promote the acquisition of professional experience on the part of graduates; on the other, it allows both students and teachers to have contact with the reality of the rural sector, and favours greater suitability of the material taught for meeting current demands.

Moreover, every two years an international meeting on rural development is organized at the UCO. Many different types of participants from Spain and elsewhere concerned with rural development take part in these meetings (technical and administrative personnel from rural development groups, politicians with responsibilities and competence in the field, academics, other professionals of the sector, etc.).

The initial objective of this meeting was to bring students in contact with the reality of the sector and the most recent problems affecting it and, at the same time, facilitate the establishment of links with possible employers. However, this initial aim has been considerably extended and the meeting is currently becoming a forum for reflection and discussion of great interest for the sector. This was evident from the last one, which was attended by over 1,000 participants.

Apart from the interest it generates, the meeting represents an excellent opportunity for making the participants aware of the educational strategies

that the UCO is implementing in rural development, and for the UCO to learn what the opinion of the sector is and what its new needs and problems are. In the last analysis, all this is very important for matching the training of the students with the demands of the sector as far as possible.

Other means used to publicize UCO's study programme on rural development are: a) the UCO web page; to be specific, within the space devoted to the Rural Development Research Group, information is offered on the existing educational offer in rural development; b) informative leaflets in both Spanish and English have been distributed to the sector by various means and also to other universities where there may be students interested in taking these studies; c) selective mailing aimed specifically at people who have shown a definite interest in these matters; d) interviews in the media which have facilitated wider publicity for the programme.

Chapter 7

When did the change process begin?

The process of setting up the HESORD of the UCO has two origins, one remote and another more recent. The more remote origin goes back to 1984 when the first reform of the study plan, considered ‘modern’ for many years, was approved; it was in force for nearly 20 years. This modification of the educational profile of the agriculture engineer was adopted, as a pilot scheme, only by the University of Cordoba.

During the 1980s the University of Cordoba, and in particular the Higher School of Agronomy, led a national process of reflection on the objectives and most suitable measures for reforming higher education in Spain. The debate that ensued from this movement included essential themes such as the role of the university in developing societies and the need to make the content of university programmes more flexible, adapting them to the deficiencies identified in the different sectors.

While the proposals for an in-depth reform of the Spanish university system were unfortunately not put into practice, a clear effect of this process was the approval of the reform of the 1984 study plan. The study plan of that year increased the range of subjects offered by the UCO by including ‘optional’ subjects which students could take depending on their interest. The second novelty at the time was including an annual subject (equivalent to 18 credits) on rural development in the official compulsory programme. This subject, which was completely new for Spanish higher schools of agronomy, was well received by the students, but faced some resistance and incomprehension on the part of various teachers from Cordoba and other universities.

The more recent origin dates back to 1992 when the adocument entitled *Bases para el Plan de Desarrollo Rural de Andalucía* was drawn up and a

reflection group on rural development was set up, which later evolved into the group promoting the change process.

The first training experience designed by this group consisted of a course for retraining professionals from various countries working in the agricultural sector who had an interest in finding out about new approaches. This course examined local questions together with territorial issues and the formation of social capital. The Andalusian Regional Government contributed the resources that were necessary in order to carry out this pilot scheme in 1994. This 'Specialization Rural Development Course' was extended by a month and a half, was attended by students from six different countries, and totalled 30 credits (in accordance with the European Credit Transfer System).

The satisfactory results achieved by this longer course and the expectations created by a series of short summer courses that were offered in 1993 and 1994 confirmed the existence of a social need and a specific demand for higher education which at that time no Spanish university could fulfill.

Chapter 8

Sources of support and resistance

On the positive side, the existence at the University of Cordoba of a large group of teachers and researchers with extensive experience and national and international knowledge in different matters related to rural development has been one of the most important sources of support.

The Rural Development Research Group based at this university has played, and continues to play, a crucial role. This group acted as a catalyst at the origin of the process, and continues to foster improvement of the Rural Development Higher Education System, introducing new educational products and acting as an interface between students and rural society.

Another factor of great importance has been the proliferation of different strategies of rural development launched by different administrations, which has highlighted important deficiencies in education and training in the area of rural development and has allowed rural development to be considered a new source of employment.

The assessment of Andalusia as an 'Objective 1' region (that is, an undeveloped region within the European Union – EU, as its GNP is less than 75 per cent of the average GNP of the EU) has led to the creation of a considerable number of strategies for rural development in different areas. As already mentioned, there are 50 rural development groups in the region, which work with a population of some 3 million inhabitants. This has meant that there is in effect a demand for graduates who have been specifically trained in rural development; this has encouraged both students and graduates to complete their training.

However, a number of different sources of resistance can be distinguished. From the agricultural sector itself, the switch from production-

oriented farming to a new approach involving the latest trends in rural development entails significant changes in both the production system and in the attitudes and activities of all the economic and social actors involved. These changes do not take place overnight; instead, they require sufficient time for the new situation to mature, as well as a catalyst capable of initiating and stimulating the change process.

The farming tradition represents both a strength and a weakness when new challenges need to be faced. Institutions, civil servants and actors responsible for applying farming policies, as well as farmers and companies involved in agricultural production, attach very little importance to emerging territory-based initiatives. The sectoral view is still deeply rooted in participating groups.

This has a double negative impact on both the supply of, and the demand for, higher education studies in rural development. First, traditional degrees – for various reasons – fail to offer an effective response to new approaches and initiatives; and second, the corporate attitude of agricultural engineering graduates hinders the efficient adaptation of courses available at universities, thus distorting supply.

Blueprints for new academic courses reveal a clear tendency to concentrate on existing subjects and on subjects close to the research interests of university staff, without reference to new market demands or the need to develop new courses reflecting current trends and associated training requirements. This supply-based approach is clearly counterproductive for students interested in acquiring a truly modern education that will equip them to meet the new challenges posed by society.

At the very beginning of the process, an important point of internal resistance derived from the lack of a commonly implemented or internationally accepted paradigm on rural development. A number of researchers found this absence to be an obstacle for joining the project.

With regard to the development and implementation stage, the initial problems that arose can be divided into three groups: institutional problems, practical problems and problems of attitude.

1. *The institutional difficulties* stemmed from ‘insufficient support’ from different administrative authorities for this new line of specific and pioneering education. This was largely due to the fact that the complex institutional network is still dominated by sectoral and corporate attitudes. Due to the lack of a clearly defined and articulated rural policy, competencies in this area are scattered among different administrative authorities, none of which assume any relevant importance. Although the public institutions are aware of the need for, and importance of, a rural policy and are also aware of the lack of properly trained professionals to guarantee its application, they have failed to offer the support that might have been expected. Consequently, greater progress and support has yet to be achieved at both institutional and financial level for the implementation of higher education initiatives, the ultimate objective of which is to redress educational deficiencies in these new subjects, which, despite being recent, are nonetheless important.
2. *The practical difficulties* derive from the new ‘teaching approach’ that was initially planned and which often clashed with traditional teaching methods unable to adapt to the new multidisciplinary approach or to the practical application of the material being taught. The continual need for innovation and evolution in relation to both the concept of rural development and the implementation of these policies makes it necessary to expand the range of vision, something so often lacking in the education system in Spain. The search for an ‘integrated approach’ prompted the creation of interdepartmental work groups, whose objective has been to analyze subjects from different perspectives. However, this interesting approach raises problems in terms of its practical application, given the lack of experience in teamwork and the problems in reaching any agreement due to evident differences of opinion between group members. Given the decision to opt for a multidisciplinary approach and the diversity of subjects relating to the rural environment, it was deemed appropriate that a wide range of university degrees (including in agronomy, biological science, veterinary science, economic science and sociology) should offer students the opportunity to choose this subject. This was also considered to be important in order to prevent excessive rigidity in terms of course access. The differences in the prior education of students, although very enriching from the interdisciplinary standpoint, make it extremely difficult to define the scope of the different subjects.

3. *The difficulties relating to attitude* arise from the wide variety of the subjects to be taught. The “lack of a perfectly tuned theoretical and conceptual rural development framework” gives rise to a series of erroneous considerations. Many of these have resulted from the implementation of development programmes introduced in recent years that have identified rural development with rural tourism, or with the creation of economic-based activities in rural areas, without taking into account that the problems affecting these areas are much more complex. These approaches fail to consider deep-rooted problems affecting the rural environment, such as the lack of education and training, the limited capacity for mobility and social involvement, the lack of an underlying socio-economic fabric, or the process of ‘acculturation’ and the loss of traditional values.

In addition to these problems, there is ‘opposition’ to rural development from some of the traditionally dominant sectors in rural areas, most notably the farming sector. Many farmers and farm unions see rural development as competing with farming. The belief that rural development programmes mean turning farmers into ‘landscape gardeners’ or ‘hotel owners’ is common among farming communities. However, the view that rural development and farming are two sectors competing for the same funds is much more dangerous and has been even more widespread in recent years.⁷

This type of attitude, very evident in the early 1990s, has hindered the acceptance of rural development as a scientific discipline and as a field of study, and has complicated the progress of studies. Nevertheless, in recent years there is greater knowledge of the reality of what is occurring; some barriers are being broken and therefore some agreements and complementarities have been reached between the positions defended by rural development and those defended by agriculture.

7. The agricultural policy of the EU represents almost 50 per cent of the European budget. Most of this money is devoted to maintaining farmers’ income through price and market support mechanisms. This is what in technical terminology is called the ‘first pillar of the CAP’. However, since the Berlin Summit in 1999 (Agenda 2000), other aid aimed at the development of rural areas has been introduced and politically recognized: this is the ‘second pillar’. Unfortunately, the ‘second pillar’ is creating fears for a number of farmers. They see the risk that the ‘second pillar’ may function as an open door which lets money be diverted from the ‘first pillar’.

Chapter 9

Resistance to change: overcome or circumvented?

The resistance that the higher education project in rural development at the University of Cordoba has had to face has been of three types: external (from groups with interests in agriculture, from institutions with competencies in agriculture and from other public administrations); internal (academic in nature and related both to the project and to its means of implementation); and operative (related to the design of content, as well as the teaching method and the administration of the programme).

The most important reason for having overcome some of the types of resistance has been external. The growing importance of rural development on the European Agenda and the social acceptance of territorial and environmental strategies are facilitating the consideration of rural development as a specific policy of the EU, as a scientific discipline and as a new educational field. These reasons are thus helping to overcome some of the initial resistance.

Concerning external factors, the resistance to change reveals a mentality anchored in the past. This view does not take into account that what was the motor of the rural economy in the past can no longer fuel the development of rural areas today if this is not linked with other strategies to foster the development and diversification of activities in the local environment.

Nevertheless, some changes have recently been observed regarding the idea that farmers have of rural development policies. The latest novelties incorporated by the EU in Agenda 2000 include some, albeit timid, attempts to break the traditional dichotomy between agriculture and rural development. The defence of a multifunctional agricultural system aims to establish bridges between both approaches. This new institutional position is contributing to toning down positions within the sector and is helping to overcome some

resistance between professional groups. Even farmers' unions have included rural development in their strategies and maintain frequent contact with the Rural Development Research Group of the UCO.

With regard to the second component of external resistance – weak institutional support – a series of factors related to the quality and pertinence of the programme are helping to attenuate this position. Among these factors can be mentioned: a) the impartiality and professionalism of the HESORD teachers; b) the rigour with which the themes are tackled; c) the excellent training of the graduates who are achieving outstanding performances in their respective work; and d) the international recognition which the University of Cordoba is achieving in rural development. The combined effect of these factors is helping the public administrations and the most inflexible groups of the University to tone down their initial positions.

The internal resistance of the University itself can be divided into two groups: active resistance which tried to prevent official approval of the programme; and passive resistance which in a less evident manner has attempted to hinder progress of the process once it was approved.

It should be stated that the HESORD has always been accepted by the Governing Board of the UCO, but a number of circumstances have made it difficult to incorporate it into the University mainstream. Namely: a) the University of Cordoba is a medium-size university with financial restrictions (for this reason there is strong competition in fund allocations); b) for the moment, it is the only programme of this nature in Spain and has not been approved by the Ministry of Education as a national degree, but only by the University itself;⁸ and c) it is a pilot project set up by a group of teachers and not directly by the UCO Governing Board.

To overcome all of these problems, the flexibility of the conceptual project and its methodology are allowing the integration of new teachers into the

8. As a consequence, its expenditures are not included in the budget received by the University from the Government. The student fees, together with some external financial support, have to cover all the expenditures generated.

HESORD. This has the effect of increasing, on the one hand, internal support for the studies, and, on the other, increasing their range. This incorporation of teaching staff can take place to differing degrees according to the needs and the availability of the teachers and of resources: from a part-time contract to work on the HESORD, to teaching some of the subjects or workshops, or participating in different ways in HESORD research projects.

Regarding the operative difficulties of setting up pioneer studies, some of the strategies followed in order to overcome them are mentioned in the next paragraph devoted to the practical organization of the first outcome in the HESORD: the *Titulación Superior en Desarrollo Rural* (TSDR, Rural development academic degree)

Chapter 10

The Rural development academic degree (TSDR)

As previously mentioned, TSDR was the first outcome of the HESORD. The method and the guiding principles of this degree are described next. Given the success of the approach, it has been applied to the other educational products integrated under HESORD.

The diversity of scenarios and the need for adaptation to different circumstances are two key characteristics of modern rural development processes that have been reflected in the HESORD approach. Courses have therefore been designed to take into account demand rather than supply, as has been the trend thus far. The identification of local training needs is considered to be an effective way to resolve this problem. As already mentioned, an initial survey was carried out, and it is regularly updated so as to be able to meet the changing needs of the sector.

The guiding principles of the programme (multidisciplinary approach, internationalization, commitment to quality and flexibility) have made it possible to overcome some of the operational difficulties encountered.

1. *The multidisciplinary approach* enlightens both the definition of contents and the creation of interdepartmental staff groups and student work teams. The complexity of rural systems means that it is practically impossible to reproduce the conditions of one system within another. Different approaches to the same problem are therefore required, thus enabling economic, social, territorial, and cultural analysis. Only by adopting the broadest approach will students be able to acquire extensive knowledge that they can use when dealing with specific problems in particular areas. The ability of the different participating teachers to work together successfully on a common and multidisciplinary project is a tremendous

intellectual challenge, and at the same time a guarantee of success. This has always been the guiding work philosophy, although it has not always been possible.

Throughout the TSDR degree programme, each student carries out various practical assignments within a multidisciplinary work team. The different backgrounds of the students in terms of their educational profile enables multidisciplinary work teams to be formed; this enriches group discussions enormously and increases the number of different approaches and attitudes to a common theme. The method enhances the skills and abilities of each student in terms of shared creativity and responsibility, as well as discussion, presentation and negotiation skills.

2. *Internationalization*: In addition to the participation of teachers from the UCO, the TSDR programme also envisages the contribution of other national and international experts. This enables students to discover different approaches to the subjects under study, from the most practical standpoint and also from an international perspective.

The value of this international approach becomes more evident insofar as it offers the opportunity to exchange experiences with other countries at various levels: The involvement of lecturers from European universities and institutions in the TSDR programme provides an opportunity for students to further their studies at other European and South American universities, or to pursue Intensive Study Programmes or European Modules in conjunction with other European universities under the Socrates-Erasmus Programmes.

3. *The commitment to quality* of UCO's Rural Development Higher Education System is mainly structured along the following lines: teaching methods, subject content, profile of the teaching staff and ongoing evaluation, which makes it possible to continually update the course.

The 'teaching methods' are based on the principle of 'learning by doing' by means of teamwork dynamics. The training process has three components: a) presentation, offering students a broad and up-to-date education in the main questions relating to the problems of rural development; b) in-depth analysis, based on conferences, in which well-known experts explain aspects of particular current interest and debate the different approaches and stances with the students; and c) teamwork,

which fosters a practical approach through the completion of workshop assignments focusing on the application of tools to specific situations. ‘Workshops’ are structured around the definition of a given problem, followed by the presentation of a range of tools for solving that problem; subsequent to which students work in multidisciplinary teams to actually apply the problem-solving instruments proposed. Apart from the results obtained through the practical application of specific tools which is encouraged in the workshops, teamwork allows students to acquire another range of skills which may be of great importance for their future work. Among them can be mentioned: a) working in multidisciplinary environments; b) learning group work techniques; c) using negotiation techniques; and d) developing the necessary skills for reaching agreement or consensus.

The curricula contents initially defined were as follows:

First year	Economy of rural development	12 credits
	Sociology of rural development	6 credits
	Ecological basis	9 credits
	Productive basis (livestock and crops)	6 credits
	Geographic analysis	4 credits
	Countryside management	11 credits
	Optional subjects	26 credits
Field work (12 credits)		
Second year	Methods and tools for strategic planning	12 credits
	Biological production systems	9 credits
	Technologies	6 credits
	Management of strategies	9 credits
	Public policies	9 credits
	Diversification of activities	8 credits
	Innovation and transfer techniques	6 credits
Rural extension	3 credits	
Optional subjects	20 credits	
Final dissertation (12 credits)		

Lectures are complemented by the study of real cases and by ‘practical visits’, which enable students to obtain field experience and to apply *in situ* their newly-acquired skills.

In order to allow the implementation of the described teaching system, a maximum number of students (*numerus clausus*) was established. This number was determined to be 25 students per year. Each year, the number of applicants has been almost three times superior to the number of places available, which has led to a selection process based not only on the aptitudes of candidates, but also on their attitude. During this process, both the academic records and the professional/research experience of the applicants are taken into account.

The selection process is split into two phases:

- *registration*: together with the application form, applicants are encouraged to send their curriculum vitae and as much additional information as they consider to be relevant;
- *personal interview*: the students whose application has been accepted will be given a date for an interview after which their application will be finally accepted or rejected by the academic board.

In terms of the teaching staff, the University of Cordoba has selected, from its large list of lecturers of recognized national and international prestige, those who are most familiar with the programme’s subjects. Moreover, the growing external reach of the programme is making it possible to incorporate guest teachers from European and Latin American universities, together with national and international experts who participate regularly in the programme. This participation can take the form of teaching a short course or of giving a lecture on a specific theme.

This approach strengthens the knowledge of other situations on the part of the students, widens their horizons and, in a more practical way, obliges them to improve their grasp of other languages (since these classes are given in English or French).

The subjects are evaluated on an ongoing basis, making it possible to compare the suitability of the initial content structure with what is actually

achieved. This ongoing evaluation and reprogramming of subjects based on changing needs offers a guarantee of success and ensures that the subjects can be adapted to the changing demands of a field as dynamic as the rural development sector.

4. *The importance of flexibility* in the design of the programme is mainly reflected in the content of the subjects that are taught and in how students tailor the curriculum to meet their individual requirements.

The content of the subjects is defined on the basis of adaptive and interactive methodologies; this ensures that at all times the subjects are adapted to meet existing socio-economic situations.

Chapter 11

Further changes in the process

Training in itself is subject to continuous changes and innovations. Due to the very nature of the concept of rural development and its constant evolution, training in this subject has a dynamic nature which means that its objectives, the methodological tools, and teaching aspects are continually being revised.

The process described up to now refers to the way in which the studies on rural development at UCO have been organized up to the fourth intake of new students. Following the principle of continuous change and assessment, and thanks to the feedback from the opinions of teachers and professionals of the sector, and the assessments made annually by the students, the year 2001 initiated a new period of analysis and redesign which has led to the introduction of new and profound reforms, improving the adaptation of the system to the needs of the sector.

Regarding content, it is important to emphasize that when these studies were initiated, rural development as a political and academic subject was relatively new to the EU. Because of this, previous experience was scanty. The policy of rural development was thus slowly introduced into the European Union and some universities began to consider the relevance of the process as a subject for research. The first rural development initiative (Links between actions for the development of the rural economy, LEADER) was launched in 1991, and its success led to the number of programmes on rural development in Europe being multiplied by four in the following year. This greater dispersal of rural development programmes over the whole of Europe gave rise to considerable institutional attention to the bottom-up approach and participatory programmes, although this was not reflected by the necessary financial support.

The growing political and technical importance of rural development has justified its consolidation as a field of study and scientific discipline at the

University of Cordoba and other universities. In the past five to ten years a number of studies have been carried out and documents produced, different work methodologies have been perfected, different approaches have been tested, with those producing the best results being accepted and others rejected. In short, the store of available scientific knowledge on rural development has considerably increased.

This greater availability of teaching materials, of results of applied research and actual experience, together with the need detected for incorporating more applied subjects and eliminating some basic subjects (which could be studied in other degree courses) led to a proposal for the revision of the study plan during the 2000-2001 academic year.

In the new revised plan for the year 2001 the new subjects had more to do with the processes which are normally carried out in the programmes on rural development, as can be seen in the next table. But they pose the problem that many of them are being designed *ad hoc*, based on some existing material, but requiring considerable effort from the teachers.

In addition, emerging social needs demand to be answered. Concerning the teaching method, the main problems detected derive from the fact that as this is the only degree course in rural development existing in Spain, there is a considerable demand from students who are from outside Cordoba and even from outside Andalusia who are interested in following the studies. Furthermore, from the launching of the HESORD, as a pilot experience, at least half the students are professionals from the sector returning to university to update their knowledge in order to tackle adequately the new challenges they face.

The traditional teaching method used up to now required daily class attendance, which hardly fits the circumstances described. Because of this, the decision has been taken to introduce a system of semi-attendance training. The heterogeneous nature of demand and its spatial distribution have led the UCO to the conclusion that multimedia training offers a large number of advantages compared with traditional forms of education. In this sense, the use of state-of-the-art multimedia computer tools will enable interactive teaching, adapted to the personal needs of students without them having to travel to university every day.

First year	Rural development theories: economical and sociological	6 credits
	Territorial planning	6 credits
	Natural resources planning and management	6 credits
	The cycle of the project I	12 credits
	Quantitative and qualitative analysis methods	6 credits
	Participation and network analysis	12 credits
	Geographic information systems	6 credits
	Basic legislation on rural development	3 credits
	Public financing on rural development	6 credits
	The European Union model of rural development	6 credits

	Rural development in a global perspective	6 credits
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Field work (12 credits)		
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Second year	Current challenges to agriculture	6 credits
	Countryside management	6 credits
	The territorial approach	12 credits
	Innovation, quality and competitiveness	9 credits
	Valorisation of endogenous resources	6 credits
	Sustainable development	6 credits
	Human resources management	6 credits
	Case method	6 credits
	Business development	6 credits
	Rural tourism	6 credits
The cycle of the project II	12 credits	

Final dissertation (12 credits)		
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In this way the theoretical subjects are studied through distance learning in a personalized manner by the students. They have specially prepared material for each of the subjects, and count on the continuous assistance of a tutor with whom they can keep in contact by telephone or e-mail. Work produced is sent weekly by e-mail, and every two weeks at the weekend there are classes to attend, in the form of 15-hour blocks.

These classes are organized as workshops. Each concentrates on a particular problem; the students are taught the use and potentiality of specific tools for tackling it and an application to actual cases is proposed. This kind of work is always carried out in interdisciplinary groups in order to encourage this type of problem-solving approach, so different from those of other studies.

Finally, in the 2001 revision, the international character of the studies has been strengthened; the number of teacher and student exchanges has increased and the number of international programmes open to students has been consolidated. The affiliation of the Rural Development Research Group to various international university networks, together with the traditional willingness of the UCO to exchange teachers and students with other universities within Spain and elsewhere, are creating a very favourable atmosphere for the insertion of both UCO rural development studies and students in international circles.

In all the years that HESORD has existed, the courses have also been followed by students from other European universities. At present there is a growing demand from Latin American students who are eager to enrol. The fact that the latter are not present in greater numbers is due to the difficulty of providing grants which would allow them to study in Spain. In turn, the number of Spanish students completing their training in rural development at other European universities has also increased.

In this sense a particularly relevant part is also played by the links between the members of the Rural Development Research Group and the Chair of Co-operation for Development of the UCO. The participation of these people in different initiatives for development co-operation, both in education and related to fieldwork, is strengthening the relations of the members of the rural development team with universities from less developed countries (mainly from Latin America, Eastern Europe and North Africa), international organizations, co-operation agencies, NGOs, etc. This situation is enabling an expansion in training and in the contact base of some of the teachers and making it possible for students to come into contact with other realities, which in the last analysis is having a beneficial effect on the quality of teaching and the increase in cases of study (including situations and perspectives very different from those existing in the EU).

However, the success of higher degree studies in rural development, and the relentless demand from individuals from other sectors of society, are forcing the UCO to diversify its range of courses on the subject.

The concept of a higher education system on rural development, in its dual role as an instrument and a target, means that the educational and training aspects, in the broadest sense of the term, are essential in order to ensure the fine-tuning of the development process. It is therefore not only necessary to count on university graduates with the necessary skills for conceptualizing and planning the rural development process, for designing and managing development projects and plans, or for fostering and guiding the progress and development of the rural population, but also for working with other groups with different training needs.

This willingness to continually adapt to new trends in demand has prompted the UCO to consider covering the entire spectrum of education and training needs in rural development, from basic education to PhD courses and from professional retraining to lifelong learning.

For this purpose, two postgraduate Master's programmes have already been introduced into the system: the International Master of Science in Rural Development (IMRD) and the *Master en Gestión del Desarrollo Rural* (MGDR, Master's in rural development management).

The IMRD is supported by a network that groups together more than 20 European and Latin American universities and which is part of the European SOCRATES and ALFA programmes. This degree programme aims to provide students who have acquired basic training in rural development at their universities of origin with the opportunity to travel to other universities in order to complete their training, with an international perspective that broadens their horizons and makes them more competitive in a global environment.

The MGDR responds to specific demands from the Andalusian rural sector. The network of professionals working in rural development in southern Spain represented by different groups and administrative authorities asked the University of Cordoba to implement post-graduate training aimed at professionals with experience in the sector. The cost of this Master's

programme has entirely been paid for by this association in partnership with the Regional Government.

The content of this course, which is more practical in nature, aims to equip these professionals with specialized training. It is taught by teachers of recognized prestige in the field of rural development, and provides the participants with knowledge of the tools that they need in order to implement, manage and apply different plans, programmes and projects in rural areas.

Although this activity was initially designed and has been offered within the framework of the Region of Andalusia (for reasons of geographical proximity), and only for managers working in Rural Development Groups, there is a clear desire on the part of the UCO to make it available to other professionals of the sector, including all the regions of Spain.

The final component of the HESORD of the UCO has been the setting up of a doctorate programme in rural development, assigned to the Department of Agricultural Economics, to which most of the members of the Rural Development Research Group belong. The demand for these studies, especially from Latin American students, prompted this decision. This programme has already been approved by the academic bodies of the UCO and came into effect during the academic year (2002/2003).

In addition to the higher education programmes described, the offer of short courses or continuous training modules in rural development should be mentioned. These are set up periodically and allow students from other UCO degree courses or professionals from the sector who are particularly interested in certain themes to complete and update their training.

Finally, work is currently being undertaken on the design of a distance learning Master's programme on rural development aimed at less developed countries. The Rural Development Research Group is contributing its knowledge on the subject to this initiative, and others working on this project are contributing specific multimedia tools and institutional support.

This type of dynamics is positioning rural development studies among the foremost disciplines of the UCO. Thanks to this more positive assessment

of the activities carried out, some of the internal reservations initially expressed by UCO groups regarding the possibility that the Rural Development Programme might compete with the objectives and needs of more established degrees are disappearing and some of the barriers have been eliminated.

Within the new European space of convergence which is to be introduced into the UCO and the new challenges faced by higher education is facing, the training approaches in rural development are breaking new ground in their attempt to meet these new needs.

Chapter 12

Recommended and accepted changes

As has been mentioned in the previous paragraphs, setting up the new studies in rural development had to overcome considerable resistance, which at a certain point posed more problems than designing the innovative contents and introducing equally novel teaching methods.

Given this situation of internal resistance, the pilot group which led the change process met two very important challenges: a) achieving an image of excellence in the subjective assessment of the students (contributing to the improvement of the 'vision' of the UCO) through the quality of the contents and the teaching method; and b) inserting the degree course into the mainstream of decisions and procedures of daily academic life (contributing to the improvement of the university commitment). The recommendations and requests which were made from the beginning of the change process anticipated these two challenges.

In order to improve how students would perceive the nature of the new studies, it was very important to ensure that all administrative processes related to HESORD were identical to those of any other degree course. Owing to the experimental nature of these studies, it took almost five academic years for the registration process to be included in the centralized computer system of the University. This achievement led to other equally positive effects for HESORD students: a) the automatic issue of an electronic student card (up to then students had a card without a chip, which had practical limitations); b) the possibility to pay the registration fee by banker's order; and c) unrestricted access to libraries and other UCO services.

It can be said that after over eight years of experience, the greatest resistance and difficulties within the University itself have been overcome. However, this does not mean that HESORD programmes are now totally accepted and integrated into the mainstream of the UCO.

In order to bring the daily life of the new degree course up to the level of traditional courses, a series of recommendations and proposals have been made: a) setting aside its own space on the new campus; and b) ensuring constitutional representation on the governing bodies of the University. The first proposal is on the way to being realized, but for the second to be accepted it will be necessary to keep up the pressure and negotiation with the professional association bodies that govern the university.

Another important matter concerns the teaching staff. We refer as much to the professors' motivation as to their ability and availability. In order to resolve all these problems, from the beginning it was considered that the most appropriate course of action would be to use independent staff attached to the HESORD. However, the competition for the limited resources of the university could mean that the struggle to obtain teachers would provoke a reaction from those elements or groups which had been most against change and thus finally result in the shelving of the initiative.

It was therefore decided to invite the UCO professors who showed a greater conceptual and methodological openness to collaborate. On this point it was observed that some of the professors with the greatest prestige as researchers showed considerable limitations in understanding and assimilating what was expected of them in innovative studies such as these.

The problem of using independent professors is being resolved by paying each one his/her working hours in the same way as in continuous training programmes. Naturally, this solution is not considered to be the most appropriate for improving attitudes towards the new study programme and integrating it into the daily flow of the university. Because of this, it was recommended and proposed that the instruction given in HESORD take into consideration the teaching load of those professors who were taking part. Regrettably, no progress has yet been made in this area.

Chapter 13

How long?

As has been mentioned, the process of setting up the HESORD began ten years ago. In the early 1990s, the need for this type of training became evident and the first meetings of the pilot group took place.

The novelty of the idea, the lack of similar studies elsewhere, the initial resistance and the need for a considerable number of teachers linked to the sector meant that the starting process was not easy. The period between 1992 and 1994 was thus devoted to carrying out preliminary work and designing the curriculum for studies in rural development.

Finally, in 1995, the anticipated study plan was submitted to the various governing bodies of the university for approval. Once this procedure was completed, the pilot scheme was set up during the 1995-1996 academic year. This first experience served to detect possible errors of content or method and to incorporate the appropriate corrections. However, the necessary initial adjustments have not been the only ones, since, as will be mentioned later, the Higher Degree System on Rural Development requires continuous revision and adaptation of content, method, and external contribution in order to guarantee at all times the relevance of the studies to changing social needs.

Chapter 14

The University of Cordoba today

The University of Cordoba recently chose its Governing Board for the next four years, and is in the process of nominating its decision-making bodies. All must be capable of responding to the challenges and opportunities which are demanded and offered by the growing globalization of society.

The new Governing Team (the Vice-Chancellor and Deputies) have explained in their electoral programme their principles, priorities and goals for adopting the proposals of the EU on higher education,⁹ in particular those included in the Bologna Declaration: a) accountability so that strategies and priorities with regard to teaching, research and the allocation of independent resources can be drawn up; b) higher education as a public service, as has been the European tradition in educational matters, and the social significance this has for the short and long term; c) higher education supported by research; and d) quality as an essential condition for the European Common Space of Higher Education to be efficient, confident, pertinent, compatible and skilful enough to capture society's imagination.

The current Governing Board of the UCO is conscious that in the future university training and the labour market will become progressively more competitive. It therefore considers it essential that students be equipped with

9. Meetings between ministers and academic authorities of the various EU countries are becoming increasingly frequent. The most recent have been the Sorbonne Declaration: *Joint declaration on harmonisation of the architecture of European higher education by the four Ministers in charge of France, Germany, Italy and the UK* (Paris, 1998); the Bologna Declaration: *The European Higher Education Area: Joint declaration of the European Ministers of Education* (Bologna, 1999); and the Salamanca Declaration: *Convention of European Higher Education Institutions: conclusions of the work of thematic groups* (Salamanca, 2001).

the resources they will need for their professional integration and intellectual training.

Based on the principles and convictions previously expressed, the UCO faces the challenge of transforming the mentality of the members of the university community so that they recognize that the students are essential elements in the life of the university and should be playing a role as important as teaching or administration and services. To respond to this challenge it is necessary to equip students with a set of abilities and skills which prepare them for reflexive learning. These abilities and skills should not be lost when students finish their studies but provide them with a permanent link to the university through processes of continuous training and communication of their own experiences in the professional field to students undergoing training. "With this aim, the students will learn how to learn and the teachers will adapt their performance so as to teach how to learn within a dynamic system, which is fed permanently by research, innovation, and the connection with the professional field." (Electoral programme of the UCO Governing Board for the 2001-2004 period)

This change of approach for meeting the education demand at the UCO calls for an emphasis on 'learning', but from a perspective where the learning process involves all members of the University community and not just the students. With regard to teachers, this means that they need to acquire new scientific and didactic knowledge through their research and innovative activities.

However, introducing this new approach will not be easy. In order to implement it successfully, it is necessary to inculcate a culture of teaching innovation and to develop specific action. It is anticipated that the ECTS (European Community Course Credit Transfer System) will be introduced, at least experimentally and in degree programmes that lend themselves to this, which will require considerable adaptation of teaching methodology. At the same time, the whole of the university community should become involved by the organization of workshops, seminars and meetings.

The current UCO explicitly recognizes that wide social sectors claim their incorporation into the higher education process, demanding curricular

itineraries that are specifically designed for specific aims. The need is also apparent for training courses that can prepare students for new sources of employment or for specific national or international demands. In response to this situation, corresponding curricular or methodological modifications are proposed.

The recent Law of Universities (*Ley Orgánica de Universidades*, LOU),¹⁰ indicates that studying at university is a student right and that an investment policy must be developed which will ensure that the capacity of academic centres can meet social demand.

The development of new technologies, and the access to theoretical knowledge in real time through the Internet, is changing the concept of learning, and stressing the search for and the interpretation of information as well as the acquisition of practical skills required by society.

As a consequence of everything mentioned above, the Governing Board of the UCO has committed itself in its Electoral Programme to attaining the following objectives (among others): a) improving the integral training of students in order to encourage a new teaching culture based on the capacity for self-learning; b) optimizing the resources of the UCO in the training of new graduates by encouraging new degree courses, attracting students with the best academic record and increasing the availability of degree courses with the greatest social demand; and c) establishing a UCO follow-up programme of graduates through which their incorporation into the labour market and possible deficiencies in their training can be analyzed.

In this new scenario of challenges and proposals, the experience in higher education of the UCO can serve as an example of the changes that traditional degree courses and different groups of teachers should adopt. This has been explicitly expressed by the university authorities and is progressively weakening the internal difficulties and resistance which HESORD has had to face.

10. Constitutional Law 6/2001, of 21 December, on Universities, published in the *Journal of the Official Gazette* no. 307 of 24 December 2001. This Law aims to introduce gradually very important changes in the structure and operation of Spanish universities.

Chapter 15

The major stakeholders

As has already been mentioned, the real instigators of setting up Higher Education Studies on Rural Development (HESORD) were a group of professors who had a high sense of vocation and close relations with the social, technical and economic milieu of Andalusian agriculture.

This pilot group was made up of some teachers and researchers who had reflected together for over a year on the future of the rural areas of the region. It was easy for the pilot group to include other dynamic professors in the project, who had a strong personal commitment and were on good terms with their students, but it was very difficult to cover the thematic areas where the teachers who were available lacked this profile of motivation and personal commitment.

One lesson learned from the experience of the UCO was that the attitude and the personal motivation of the different players involved in the HESORD programme in how they saw the project – in favour of, against or with indifference – has turned out to be more important than the formal academic level, the field of research or the professional sector each was involved in.

Among the authorities of the University of Cordoba, the HESORD programme was always able to count on the personal support of the Vice-Chancellor and the explicit institutional support of the Deputy Vice-Chancellor of Academic Planning. The strategic importance of the latter support is due to the fact that the direct competence of the Deputy Vice-Chancellor includes everything relating to new degree systems, pilot degrees and the design of teaching staff schedules. The participation of the Deputy Vice-Chancellor in HESORD was assured by offering him the academic leadership of the programme, which he has maintained despite the changes that have occurred

on the Governing Boards of the UCO since the initiation of the HESORD. It should be noted, however, that in spite of the importance of this support, not all members of the different Governing Boards have been as understanding or as enthusiastic in their support for the HESORD programme.

In the Governing Commission of the university (the democratic decision-making body that comprises representatives of the whole university, including students and administrative staff), favourable votes were gradually gained from the representatives of the Humanities and Social Science centres, together with those of Biological Science and the Environment. However, the groups representing more technical degree courses were much more reticent as they considered the HESORD degree course to be a future competitor for the allocation of funds or for employment as far as their students were concerned.

Important support for the project also came from the financial and administration areas of the university, which understood that the proposed changes and new initiative could lead in the medium term to a greater opening up of the institution and therefore represented an opportunity to offer new educational and technical assistance services to groups with which the UCO generally had no contact. In short, those responsible for the finance department understood that this new project might potentially become a source of employment and future activities. For these reasons the administration department did not oppose the idea, but neither did it support the programme explicitly.

Last but not least, the group that has contributed most towards progress of the project has been the students. This is not only because they have been enrolling for seven consecutive years, but rather because the most critical and dynamic student groups have considered that this degree system is an example of new teaching methods and of involving the university in the future of society; in this way, the HESORD has on many occasions been cited as an example in student forums and debates.

To sum up, while the university is increasingly acknowledging the importance of HESORD, the programme is still considered as a pilot project, and has not yet been fully integrated into the mainstream of university procedures.

Chapter 16

The gender issue

At the University of Cordoba, as in the rest of Spain and the EU, there are no socio-economic, cultural or political obstacles preventing the free access of women to education. Women can carry out their studies in complete freedom and under equal conditions as those for men.

However, this has not always been the case. Three or four decades ago the number of women who entered university was much smaller than that of men. This situation owed more to cultural considerations than to any other type of restriction. As a consequence, the number of female professors is significantly smaller than that of males. Nevertheless, the situation has changed and the number of young female professors is now equal to or even greater than that of young male professors.

With regard to students, a degree in Agricultural Engineering (as in other technical degrees in Spain) was socially considered to be a masculine discipline in its early years, although this did not mean that there were any entry restrictions for women. This situation was overcome some time ago and currently the percentage of women in the Higher School of Agronomy is only slightly smaller than that of men.

In the Higher Education System in Rural Development the situation is similar to that of the university in general. The number of women and men following these studies is well-balanced and therefore no special strategy to favour women has been necessary.

Concerning the content of the subjects of the HESORD, gender issues are not taught as a specific discipline as they are taken into account throughout the programme, considering the fundamental role that women play in the development of rural areas.

Chapter 17

Results and implications

Thanks to the innovations described previously, there is growing recognition of the significance of UCO studies in rural development, and this is making it possible for the university to continue its pioneering work in higher education in this area.

The increase in the number of applicants achieved for the last academic year¹¹ of the Higher Education Programme on Rural Development at UCO (TSDR) and the acceptance of the new educational products support the idea that the UCO has been able to offer what the rural development sector needs. However, as has already been described, the UCO has not shifted its focus on higher education in agriculture entirely to the new area of higher education in rural development, it has merely diversified its education offer in line with the new demands of society.

In turn, access has been achieved for new groups interested in improving their training. The current varied offer that the UCO provides means that practically any training or higher education need in rural development can be met. The only demand that currently cannot be fully satisfied is that of professionals from other countries, although it is hoped that this problem will be resolved once the distance learning Master's degree has been introduced.

Moreover, the general satisfaction of the graduates and the fact that most of them find work in the sector has greatly improved the recognition of

11. The number of applicants had fallen in the last years. In the first four years there were about 75 applications, but in the subsequent two, this number dropped to around 50. Nevertheless, after the changes described, this figure rose once again to 70 applications, although only 23 students were selected.

rural development training at the UCO. Thanks to these good relations with the sector, as well as the research work, technical assistance to public administrations or to rural development groups, and specialized consulting, etc., the aim of always directly involving the students in one way or another in rural development can be realized. All this contributes to the continuous training of the professors, their increased experience, and to bringing students in contact with the realities of rural development.

Chapter 18

Comments on the process

The generally positive comments on the change that was initiated refer in the first place to the need for and the relevance of this type of studies, especially in a predominantly rural region such as Andalusia. The existence of work opportunities in the sector makes specialized higher education in this discipline even more attractive.

Although the novelty of the idea and the difficulties inherent to setting up these studies have meant that some aspects did not have the expected acceptance, the latest changes have considerably improved the image and the efficiency of the studies. The following points have therefore been particularly valued: a) the suitability of the programmes to the needs of the sector; b) the academic rigour with which the themes are taught; c) the quality of the didactic material given to the students (much of which is produced specifically, as has been said); d) the use of new information technologies, both in connection with the students and in the workshops; and e) the opportunities for interdisciplinary work which facilitate training for the labour market.

The different activities undertaken for and by the Rural Development Research Group are enhancing the involvement and the acknowledgement of the UCO in rural development in Spain and in other countries, as well as increasing the social role of the university.

The accomplished projects comprise research, support services or consultancy activities, aiming: a) to develop new methodologies (evaluation of rural development strategies, rural development programmes, strategic programmes, sustainable development programmes, etc); b) to know the effects of different policy instruments (as the CAP in Mediterranean regions); and c) to evaluate the socio-economic impacts of some activities, etc.

In addition, the Rural Development Research Group has participated in different projects and strategies in developing countries, related, for example, to irrigation systems in Brazil, establishing the basis of a rural development strategy in Nicaragua, developing different educational strategies (Master's courses, post-graduate courses, workshops, etc.), rural tourism planning in Honduras in collaboration with the UNDP and the National Government, and to regionalization and power decentralization in Uruguay, among others.

However, this research group is not the only one that is well-known at the university and the resources it has attracted are not very different from those of other active UCO research groups. The financial pattern of the UCO has thus not been significantly changed by the activities related to rural development.

Some negative comments regarding UCO's involvement in rural development still come from those who fail to understand the need for specific training in this area. This opinion can be found within the university, mainly among some older teachers who consider that the traditional degree courses adequately cover the needs of the sector. This attitude is also quite common among agricultural engineers, and has been considerably influenced by the fact that in the first rural development programmes launched, due to the lack of graduates specializing in the subject, many of the posts were filled by agricultural engineers who were unemployed or had no previous experience. However, this attitude can be overcome since many of these agricultural engineers, in order to alleviate their deficiencies in training, are now attending in-depth courses in rural development offered by the UCO.

Another group of people who continue to criticize the process are some local politicians who seek to increase their administrative influence at local level. For this reason, they prefer the technical offices of the rural development groups to contract technicians with less training, who are easier to influence and whose opinions coincide as closely as possible with their interests. This attitude, on occasion, is hindering job access for specifically trained professionals. Although this narrow-minded viewpoint is unsustainable in the medium and long term, it is still present to a greater or lesser degree and is causing practical difficulties for the total acceptance of the new 'higher education studies on rural development programme'.

Chapter 19

The change process and international trends: a comparison with the action plan of the UNESCO higher education conference

Since its conception, UCO training in rural development has tried to incorporate as far as possible new trends in higher education and the new challenges being faced at present.

In relation to the proposals of UNESCO in its Paris Declaration of 1998, and the subjects discussed in this report, the following can be stated:

1. The main objective of the HESORD of the UCO is the training of highly qualified graduates in an atmosphere of continuous learning. Moreover, the permanent involvement of the Rural Development Research Group in research projects encourages the connection between training and research, increasing student knowledge and improving students' contact with the realities of rural development.
2. The UCO has signed the different international agreements and conventions relating to ethics, accountability and the vision of the future of higher education institutions. These approaches are being made known among both students and personnel, and although it cannot be said that they have been completely integrated, steps are being taken to achieve this.
3. Regarding equality of access, there has never been discrimination of any kind at the UCO, other than a selection process based on the merits and capacities required for following certain studies.
4. Although there are no specific policies favouring the access of women, there are no problems for their enrolment as students or for their employment as university personnel. However, women have a considerably smaller presence on the governing bodies of the university

than men, although this situation has not been deliberately encouraged. There is an appropriate gender balance in HESORD.

5. Research is a priority for the UCO and particularly for the Rural Development Research Group. This research is continuously carried out in an innovative and multidisciplinary manner and is part of the guiding principles of the HESORD. With regard to the transdisciplinary nature of HESORD, it should be stressed that although progress is being made, some obstacles still persist. Finally, a fair proportion of the funds that the Rural Development Research Group uses in its research comes from contracts agreed with various institutions and bodies, both public and private, which strengthens the usefulness and suitability of the results for the demands of the sector. The importance that is attached to teaching, as a way of transmitting knowledge to students, should also be stressed. Attempts have been made recently to incorporate new methodologies and pedagogical techniques which would allow professors to teach and learn at the same time, as well as to teach their students how to learn and use the necessary skills to integrate themselves into the new changing environment.
6. HESORD aims to contribute to the joint development of the educational system and society. In order to do so, it incorporates values such as respect for culture and the environment.
7. This report has indicated in various places HESORD's constant linking of rural development training to the needs of the sector and shown its vocation for offering the different educational products that the sector demands.
8. The UCO offers a wide range of training and education possibilities in rural development: a Higher Degree Course (HESORD), two Master's level degrees (IMRD and MGDR), a doctorate programme, various specific modules, seminars, congresses, etc. Moreover, it does so with a flexible timetable, using new technologies and promoting new teaching techniques.
9. The need for adapting to new changes has favoured a profound reform of rural development training, which has sought to incorporate a new methodology that would offer more than a simple cognitive grasp of disciplines, and help to acquire new skills and aptitudes. In order to do this, the following practices are considered to be essential: team work, continuous contact with the realities of rural development, the acceptance of students from other countries, etc. Since this reform was introduced

- for the first time in this academic year, there are not yet any specific results, but the overall tendency seems to be one of progress.
10. While the UCO takes students into account in its approach, perhaps a further step should be taken so as to consider them as the main players in higher education.
 11. Quality assessment is one of the priorities of the UCO, although some of the programmes that were set up have not been particularly highly valued. There is a specific administrative section responsible for quality control which is answerable directly to the Vice-Chancellor and which will increase its powers and resources in the new term.
 12. New technologies are fully integrated into rural development studies, as has been mentioned, both in didactic material and in teaching methods. Moreover, the future launch of the distance learning Master's degree in rural development will favour the use of these technologies, incorporating a new vision of teaching whereby teachers will no longer have to be present in the classroom to teach.
 13. As rural development studies are financed neither by the university nor by the State, the students themselves pay for a significant part of the real costs through their registration fee. The remainder of the expenses are negotiated with certain institutions and public and private bodies which provide financing in the form of grants and student aid. This ensures that excellent training is provided, avant-garde approaches are used and new social demands are fully taken into account.
 14. Regarding the pooling of knowledge between countries and continents, the permanent link between the Rural Development Research Group and other universities and groups, both in Europe and elsewhere, has already been mentioned.
 15. Finally, ever since rural development studies were initiated, there has been a constant effort to create alliances and associations, both institutional and within the sector, and to develop team work, which, in the widest sense, has been a leitmotiv of the programme.

All of this enables us to conclude that HESORD is conscious of the great global challenges it faces, and that it aims to be a part of the new dynamics, which means that progress must constantly be made, going as far into the subject of rural development as possible. It is obvious, however, that much of this progress has not been fully realized and that there is still a long way to go.

Chapter 20

Some lessons from the Cordoba experience

Despite all the difficulties in setting up the Higher Degree on Rural Development and the additional programmes, which complement and help to build the Higher Education System on Rural Development, it can be said that the results of this experience have been very positive and that some lessons can be learned from the process.

However, the lessons that can be learned from the University of Cordoba experience, as is the case with the analysis of any development experience, should not be restricted to measuring or establishing the degree of success or failure. On the contrary, the inventory of favourable prior conditions (both internal and external), called pre-conditions by some authors, has been determinant in the success of the process. In addition, the relation between some operating and strategic factors has been decisive in the subsequent strengthening of the strategy.

1. The most important 'pre-conditions' were as follows:
 - without this being planned, a group of professors and researchers had been gathering at the UCO; these were professionals with scientific and practical experience in rural development or similar areas, and who had followed higher education studies in other European countries. As no project existed to unite their efforts, this potential was scattered and discouraged. However, the affiliation of all these professionals to a common project allowed for the designing of a complete academic curriculum of quality in the subject;
 - the growing concerns in Europe about the future of its rural areas and in particular about the problems of depopulation, desertification or abandoning of the rural world have led to an increase in strategic opportunities in higher education concerning these matters. The

consideration of rural development as a source of employment has been the best way of presenting these opportunities in the light of the objectives and interests of the University;

- the appearance of an external trigger catalyzed the setting up of the process. This trigger was the belief of a group of professionals that training in rural development was needed and that setting up strategies conducive to alleviating this deficiency was important;
- the strong teaching vocation, the professional credibility and the enthusiasm for rural themes of the pilot group have been essential factors in launching the process and in making progress. Only with these favourable conditions has it been possible to overcome the great number of internal and external difficulties.

2. The most significant ‘operating factors’ have been the following:

- the combination of theoretical knowledge and practical field experience, present in the components of the pilot group, has made it possible to give the studies the profile and external projection necessary for their success;
- the close relations of the pilot group with public administrations and administrators of rural development has also played a very important part in deciding on the content, and in designing the teaching method in order to project to the sector the quality and suitability of the programmes. This strategic factor has been very useful for facilitating the employment of the graduates;
- the good connections of the pilot group have been strengthened by the constant relations of Rural Development Research Group with the sector, through research work, methodology design, specialized consultancy work, etc. This type of relation with the sector has been improving both the external image of Rural Development Research Group and the social consideration of the quality of the HESORD. Moreover, it has been very important for incorporating new programmes into the system, as the sector has been demanding;
- the achievements of the system have improved its international image, allowing participation on different transnational networks and on programmes of greater scope; the Cordoba experience has served as a model for other countries;

- the participation of natural allies in a follow-up group which, strengthened with other university components, is responsible for the strategic decisions and has made it possible to overcome some of the bureaucratic and administrative hurdles within the university;
 - the explicit and continuous support of the most active students with high marks in their original qualifications. The constant demand for these studies from highly qualified students has raised quality and external vision;
 - the introduction of a quality control and constant reformulation system of the project.
3. The 'strategic factors' that can be stressed are:
- the incorporation into the system of young teachers who have carried out their doctorates in the new fields of rural development and new agriculture, and who have expressed from the outset their desire to join the HESORD;
 - an attitude of analysis and continuous change. The will to open up new thematic fields and to adopt new teaching methods and technologies is ever-present in the philosophy of the HESORD;
 - the awareness of the project in networks and programmes of international co-operation. The importance of these networks stems from the need to attract the requisite number of participants for undertaking projects of greater scope. The participation of the Rural Development Research Group in various research and teaching networks facilitates teacher and student exchanges, the setting up of international education strategies, contacts with other countries, etc.;
 - the territorial and multidisciplinary approach of HESORD as a whole represents the essence of the academic perspective of the studies;
 - the direct and realistic contact of teachers and students with the rural world and its players is essential in order to make training suitable for new needs, to identify real problems, to test the suitability of the proposed methodologies and, in short, to introduce changes whenever necessary.

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