

## Barcelona Treball

# Agriculture and fishing

**Sector Report 2013**

**With the collaboration of:**

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Catalonia)

*Cofinancian:*



# The 10 keys to understanding the sector

**Technological and biological advances will be essential in order for agriculture and fishing to continue to expand in a way that does not modify natural habitats and is environmentally friendly.**

## The sector

The agriculture and fishing industry is based on exploiting the natural resources of the earth and the sea to obtain foodstuffs for human or animal consumption. It is an industry of great strategic importance, as it is essential to the self-sufficient development and wealth of a country. It is also a very intensive industry in terms of manpower and machinery.

## Main areas of activity

This industry comprises two broad areas of activity: agriculture, and fishing and aquaculture. Agriculture is the area that uses the natural resources of the earth to obtain products for human consumption (for example, fruit and vegetables) and animal consumption (for example, fodder), or products that could serve as alternative energy sources (for example, biomass). As for fishing, it is the area that exploits marine and coastal natural resources to obtain fish, crustaceans and molluscs for human or animal consumption.

## Trends

Changes to the technology used in the farming and fishing industry will be a key aspect of its development in economic and employment terms. Technological and biological advances will be essential in order for agriculture and fishing to continue to expand in a way that does not modify natural habitats and is environmentally friendly. Examples of this include the use of biotechnology in designing GM plants that are capable of growing in unfavourable environmental conditions and the development of pest-resistant plants and seeds.

## Economic importance

The sector of agriculture and fishing accounted for 2.3% of the Spanish GDP in 2011. Fishing accounted for 3.7% of the GDP of the sector. In Catalonia, the sector accounted for 0.9% of the GDP of the Catalan economy. During the first seven months of 2012, the sector has achieved a positive balance of exports/imports. However, it must be remembered that agricultural income in Spain in current terms (value generated by agricultural activity) has a worse behaviour than the European Union average. Agriculture and fishing is currently very dependent on subsidies. In 2011 agriculture in Spain received 6,631 million euros in aid.

## Employment

Currently, the sector of Agriculture and fishing employs 732,000 people (data from the second quarter of 2012), a value 11% lower than the same period in 2008. The figures reflect the negative trend of the sector in terms of employment. During the second quarter of 2012 the unemployment rate in the sector was 27.7%, more than 3 percentage points higher than the overall Spanish economy. The sector employs 54,100 people in Catalonia (7.4% of total employment in the sector in Spain). From 2008 to 2012 employment has declined significantly (8.1%). The aging of people employed

(average age stood at 43 years) and the lack of generational change are two key elements that define the employment situation in the sector.

### **Professional profiles most in demand**

The professional profiles most in demand in the industry have a university engineering or other degree or vocational training in farming, maritime and fishing or safety and the environment. In addition to qualifications, these professionals also need knowledge of production processes and environmentally-friendly farming or fishing.

### **Occupations most in demand**

The areas with the greatest need for workers are specialists for one of the activities linked to the industry. It should be stressed that jobs in the industry will increasingly be of a very fixed and specialised nature within a specific subdivision of agriculture or fishing, for example horticulture specialist.

The industry's largest subsectors in Catalonia are the production of wines and cava and fruit and vegetable production, so these are the areas with the greatest need for workers.

### **Future scenarios**

The Common Agricultural Policy (CAP) is committed to a European production model based on the highest standards of food safety and quality and on protecting the environment and animal welfare. Currently a new CAP is being negotiated for implementation starting in 2014.

### **Weaknesses**

The industry's weaknesses include the consequences that climate change has for natural environments, problems in developing agricultural and fishing policies suited to the country's needs and the people working in the industry and its dependence on fossil fuel prices.

### **Opportunities**

Technological advances applied to the agricultural and fishing industry are an opportunity that will never be bettered to improve the balance between exploitation of natural resources and environmental sustainability, while improving the efficiency of farming and fishing and the distribution of their products.

# 01 Introduction to the sector

The agriculture and fishing industry is made up of two broad areas: agriculture, which can be classified in economic terms as industrial or subsistence agriculture; and fishing and aquaculture, which is made up of activities related to fishing and the exploitation of marine and coastal natural resources.

Catalan agriculture is the specialised and relatively high-yield farming characteristic of a developed country. Therefore, the green revolution that the planet experienced was a qualitative leap in terms of developing technologies applied to agriculture, for example high-yield seeds, and in terms of biotechnology, for example GM crops. Moreover, the increased demand for food products resulting from the development of the welfare society and the evolution towards market agriculture led to the emergence of intensive pesticides and fertilisers which brought with them considerable environmental problems; attempts are currently being made to alleviate these by promoting environmentally-friendly and sustainable agriculture.

Agriculture is the cultivation of various crops such as rice, citrus fruits, fodder, fruit and nuts, herbs, vegetables, olives, decorative plants and grape vines. It also covers the exploitation of the environment to obtain materials that can be used as alternative energy sources.

As regards fishing and aquaculture, with some 600 km of coast Catalonia has a very close relationship with the sea and its natural resources and together with Spain it leads Europe in fleet size, number of fishers and number of consumers of maritime products. This makes the fishing industry crucial to the subsistence of a large part of the country's population and its domestic food supply.

In the same way as is happening with agriculture, the fishing industry (fishing and aquaculture) has also undergone great technological advances that have enabled the increased exploitation of natural resources in a way that is more efficient and requires less human effort, which has also had an impact on the deterioration of marine ecosystems. It has therefore led to a firm commitment to sustainable, environmentally-friendly aquaculture that is also based on technological and biological advances.

# 02

## Main areas of activity

### Agriculture

Agriculture is an area of activity that is part of the primary sector and includes all techniques and branches of knowledge related to the cultivation of the earth for profit. It includes all human activity supported by machinery that transforms the natural environment in order to ready it for cultivation.

The economic activities involved in this area can be divided into two broad categories: the treatment of the soil, and the cultivation of fruit and vegetables. However, all the economic activities in this area are based on human exploitation of natural resources to obtain products for human and animal consumption, including the following: foodstuffs for human consumption, such as fruit, vegetables, cereals, pulses, tubers, fodder crops, wine, oil, etc.; foodstuffs for animal consumption, such as fodder; fibres used in the textile industry, such as cotton, flax, hemp, etc.; and energy crops, such as biodiesel, ethanol, etc.

Agriculture can be also classified in different ways: level of water dependency can be used to define it as dryland or irrigated farming; yield level can be used to define it as intensive or extensive farming; and level of production and its relationship with the market can be used to define it as subsistence or industrial agriculture.

It should also be stressed that although the majority of activity in this sector is based on the aforementioned products, there are also others that are growing and come under the umbrella of agriculture, such as flower and decorative plant production and plants created by genetic engineering, for example GM maize.

### Fishing and aquaculture

Fishing, also known as extractive fishing, comprises all techniques and systems capable of extracting natural resources from the sea, including fish, crustaceans and molluscs: marine animal life ranges from small invertebrates to large tuna and whales, which can be found at any distance and depth, from the surface of the ocean to 2,000 metres below it.

Different types of fishing can be distinguished according to the method used: coastal fishing, which is carried out close to the coast using small vessels equipped with nets or lines; high-seas fishing, which is carried out with larger vessels located on the open sea and equipped with the technology to detect shoals of fish, which are caught using nets; and deep-sea fishing, which is undertaken in very distant waters, supported by large supply ships.

Increased fish consumption and the obvious limit to the sea's resources has become a reason for traditional or extractive fishing to move towards something more sustainable and environmentally friendly, known as aquaculture. Aquaculture comprises techniques for breeding fish, molluscs and crustaceans in land-based farms or using floating cages, following regular patterns that exceed reproduction levels in the wild; by exercising control over them and the environment, production of aquatic organisms is increased, guaranteeing the supply of these products for human beings.

# 03

## Sector trends

One of the country's great challenges is to make progress in energy sustainability and reduce its dependence on foreign energy sources. Agriculture is involved in this challenge and will play an important role in it, for example through the use of cultivated land to obtain raw materials such as biomass.

### Fishing technologies

The controlled extraction and production of fishing products utilises a variety of technologies, ranging from fishing vessels equipped with the latest generation instruments and tools to more traditional methods using nets made from new synthetic fibres.

Technological developments and the use of new fishing devices such as radar for detecting shoals of fish, hydraulic equipment for handling the catch and preservation instruments have contributed to the considerable expansion of fishing activities. However, the number of people employed in the industry is falling year after year. Indeed, a study by the European Centre for the Development of Vocational Training (CEDEFOP) indicates that though the European Union had 10 million jobs in 2010 in agriculture and fishing, that figure is expected to decrease to 5 million in 2015.

However, the effectiveness of the new fishing techniques used and large-scale aquaculture production have, on occasions, led to the excessive exploitation and resulting degradation of habitats. As a result work is being done to develop more restrictive legislative frameworks for regulating fishing and create technological instruments that are less harmful and more environmentally-friendly. Examples include implementing selective fishing techniques and raising awareness about environmental issues, policies which seek to reduce the impact of fishing in general and aquaculture systems in particular.

### Maintaining aquatic ecosystems

Ecosystems in rivers and lakes and in coastal or ocean waters provide natural resources that human beings can put to productive use, not just in relation to fishing but also as regards storing, preserving and distributing the products generated by the sector. However, these ecosystems also play other roles such as naturally regulating weather and reducing pollution, which means understanding and predicting these phenomena are especially important and a challenge in ensuring the sustainability of the system over the coming decade.

Traditionally the main goal of fishing legislation has been to regulate the production that takes place in these ecosystems in order to adapt it to responsible and sustainable use. However, ecosystems are still being exploited today by fishing activities and the impact of fishing on wildlife is obvious in, for example, predator-prey relationships and the transmission of diseases. Efforts are therefore still needed to focus the fishing industry on responsible and sustainable fishing.

Finally, ecosystems can also be categorised by their size and aquatic species. Hence the sector's production policies need to take each individual ecosystem's singularities into account in order to clearly define the boundaries between human jurisdictions and ecological processes.

### Participation of the agriculture sector in energy policy

One of the country's great challenges is to make progress in energy sustainability and reduce its dependence on foreign energy sources. Agriculture is involved in this challenge and will play an important role in it. Farmers are making a significant commitment to renewable energy, as shown by farms that generate renewable energy from organic matter and ones that produce it directly through adapting their facilities to make use of rainwater and wind and solar energy.

Furthermore, the government's vision regarding diversified energy sources and its specific rural support measures for the production of renewable energy will shape the development of agriculture.

### Sector participation in agricultural energy policies

One of the major country challenges is to advance in sustainability and reduce dependence on foreign energy provision. The agricultural sector is not immune to this challenge and, therefore, will play an important role. In this

regard, farmers are betting for renewable energy, as evidenced farms that generate alternative sources of energy from organic matter, or which produce energy by adapting their facilities to take advantage of rain water, and of air and sun energy. Similarly, the Sustainable Rural Development Programme 2010-2014 of the Ministry of Agriculture, Food and Environment expects to produce energy from natural resources such as biomass and biofuels, due to the high level of forest and agricultural residues that can be obtained in Spain.

In this sense, the Government vision in relation to energy diversification and specific measures of support for rural renewable energy generation will set the agriculture development.

#### **Balance in the food-supply chain**

The Common Agricultural Policy (CAP) is committed to a European production model based on the highest standards of food safety and quality and on protecting the environment and animal welfare, which results in a production model which is very expensive in financial terms.

Although it is true that there has been considerable government backing for this production model, following the most recent reform of the CAP this has diminished as the number of compensatory grants and their amount has been frozen. Furthermore, this model is not sufficiently rated by consumers who in the current context of economic crisis choose to buy products based on price rather than origin.

Quality standards set by the EU thus make Spanish agricultural products less competitive compared to those from non-EU countries. This will oblige Member States of the European Union to maintain price intervention mechanisms along with market regulation to restrict mass imports of products that do not comply with quality controls and policies to raise consumer awareness about responsible food consumption by promoting local produce and quality seals.

Finally, according to the Farmers' Union of Catalonia, the initial proposal of the new CAP that is to come into force in 2014 will reduce Catalan farmers' income by €170 million (57% of what they currently get under the CAP). They would cease to receive €85 million directly along with another €85 which, despite being in the form of grants, does not affect farmers' income as it would be set aside to offset prior spending on investment in environmental farming practices. This will undoubtedly have an impact on Catalan farm income, which has been falling steadily since 2001.

#### **Segarra-Garrigues canal**

The Segarra-Garrigues canal is a water infrastructure irrigation project declared to be a public utility in the Province of Lleida, specifically in the counties of La Noguera, La Segarra, El Pla d'Urgell, Les Garrigues and El Segrià. Its purpose is to bring over 70,000 hectares of the region under irrigated cultivation.

The work of transforming drylands into irrigated land has made it necessary to put in place a series of measures to ensure it is sustainable in the context of the environment. There have been considerable delays since the project was started in July 2002 and it is currently expected to be completed in 2013.

The main purpose of the Segarra-Garrigues canal is to provide an economic boost to the irrigation sector through creating 4,000 jobs in farming. It will therefore help to drive Catalonia's agricultural industry and reduce depopulation of rural areas in western Catalonia.

# 04

## The sector in figures

### Economic data

- In 2011, the sector of agriculture and fishing accounted for 2,3% Spanish GDP (24.383 million), a figure slightly lower (-0,7%) in comparison to 2010. According to the Ministry of Agriculture, Food and Environment<sup>1</sup>, provisional GDP data of the second half of 2012 is 2,5% higher than the same quarter of 2011.
- Fishing had a Gross Value Added (GVA) in 2011 of €901,52 million (representing 3,7% of the whole sector). This value is 8,2% higher of GVA than in 2010. Operating income for fishing in 2011 was €2.087,6 million (9,2% higher than in 2010). Regarding aquaculture, had a GVA €215,34 million (0,8% of the sector), value 32% higher than in 2010. Operating income for aquaculture activities in 2011 was €611,95 million (14% higher than in 2010).
- The sector of agriculture and fishing presents a positive trend in the external balance (exports minus imports) due to increased exports. Between August 2011 and July 2012, the external balance is positive and stood at €4.091 million. It has to be consider that the value of external balance in Spanish economy was negative (-€40.964 million).
- The trade balance with the outside is positive because of the good performance of agricultural sub-sector. Thus, the fishing sub-sector had a negative balance in July 2012 (-€156 million), although this figure is better than the same month in 2011, as the result was more negative (12%). Regarding the cumulative months between August 2011 and July 2012 the balance of fishing is also negative (-€1.767 million), although a positive trend compared to the same period between 2010 and 2011. In 2010, the agriculture and fishing sector accounted for 2,7% of Spanish GDP, a figure slightly higher than in 2009.
- In Spain, the agricultural income<sup>2</sup> in 2011 in current terms decreased 3,4% over 2010, while the average in the European Union increased by 5,6%. In evolutionary terms, the agricultural income is much lower than 2007 values, when it was 12,3% higher than the actual.
- In 2011, the agricultural activity received €6.631,9 million in subsidies (0,7% more than in 2010). Of these grants, €657 million were for products and €5.974,6 million in other subsidies, including the Unique payment section (grants that were not linked to production), which represented 65% of the subsidies.
- The intermediate agricultural consumption<sup>3</sup> in 2011 was €20.000 million, representing 12,3% more in comparison to 2010. This figure indicates an increase in production costs in the industry.
- The cultivation of cereal grains occupied almost 51% of the land area of Spain (2011), which included 3.413.921 acres of farmland without planting in order to let it rest (28,3% of total).
- In 2011, Spain had 10.505 fishing boats, 955 of them in Catalonia (9,09% of the total). Catalonia is the third Region with more fishing boats after Galicia (48% of total) and Andalusia (16% of total). Spain fishing ships, in 2011, had an economic value of €1.965 million, a 7,8% more than in 2010. 66,8% of the economic value comes from fresh fish for human consumption, 33,1% from frozen fish and 0,1% of unfit fish for human consumption.
- In Catalonia, in 2011, the GDP of the agriculture and fishing sector was €1.840 million (0,7% more than in 2010), representing 0,9% of Catalan total GDP. The GDP of agriculture sector in Catalonia accounts for 7% of GDP in the sector in Spain.

<sup>1</sup> Monthly Bulletin of Statistics of the Ministry of Agriculture, October 2012.

<sup>2</sup> Factor income or net value added at factor cost: represents the value generated by the activity of agricultural production and measures the remuneration of the factors of production (land, capital and labour), i.e. the remuneration of different factors production.

<sup>3</sup> Intermediate consumption represents the value at market prices of the means of production consumed or processed entirely in the process of production (seeds/seedlings, fertilizers, pesticides, food for livestock, veterinary costs, maintenance equipment and buildings, and other services).

- Agricultural production in Catalonia in 2010 (latest data available) was 5,97 million tons (6.6% more than in 2009), of which 37,7% are to forage, 27,3% for cereals, 15,9% for fruit, 7,3% for grapes, 4,4% for vegetables, 3% for citrus, 2,9% for olives, 0,7% for oil, 0,6% for nuts, 0,6% for tubers, 0,3% for industrial crops (sunflower and others) and 0,04% for legumes grain.
- In Catalonia, the aquaculture production in 2011 reached up to 6.821 tons, 21,2% fewer than in 2010. 55,3% for fish and 44,7% for shellfish.
- The total volume of fishing in Catalonia in 2011 was 31.822 tons, representing a 10,4% increase over 2010 but a very similar value for the years 2008 and 2009.
- In Spain, land prices fell in 2011, continuing the decline began in 2008. Thus, the general index of land prices between 2010 and 2011 was reduced in 1,6% in nominal terms (current prices) and in 3% in real terms (constant prices). Prices of farmland decreased by 2,4%, while the lands occupied by uses (meadows and pastures) were revalued by 5,4%. Dry lands increased their prices by 0,4%, but did not offset the significant decline in irrigated lands which fell 5,1% between 2010 and 2011.
- The average price of agricultural land in Spain in 2011 stood at €10.003 per hectare (€100 less than in 2010), while the average in Catalonia was €12.223 per hectare (€231 higher than the 2010).

### Employment data

- The second quarter of 2012 there is 17,41 million people employed in Spain, which 732.300 is in agriculture and fishing (4,2% of total). This value is 5.7% lower than that recorded during the first quarter of 2012 and 1,2% lower than in the second half of 2011. Between the second quarter of 2008 and second quarter of 2012, employment in agriculture and fishing has decreased 11% (88.500 fewer people employed).
- During the second quarter of 2012, a 89,9% of people employed in this sector is full-time (4,9% less than in the first quarter of 2012 and 1,9% less than in the second half 2011) and 11,1% part-time (11,7% less than the first quarter of 2011, but 5,9% more than the same quarter of 2011).
- According to the EPA, during the second quarter of 2012 there are 280.700 unemployed people in the field of agriculture and fishing (4,2% more than in the first quarter of 2012 and 14,8% on the same quarter of 2011). This figure represents an unemployment rate<sup>4</sup> of 27,7%, 2,9 percentage points higher than the value of the second quarter of 2011 and than the unemployment rate of the Spanish<sup>5</sup> economy.
- Fishing in Spain employs 41.500 people in the second quarter of 2012 (5.7% of the employed in the sector and 0,24% of people employed in Spain). This value is 4,5% higher than the recorded in the first quarter of 2012 and 27,7% higher than in the second quarter of 2012. However, since 2008, employment in fishing has been reduced by 13,5% (6.500 less people).
- Unemployment in fishing in Spain, during the second quarter of 2012 was 3.200, which represents an unemployment rate of 7,2%, well below the average of the Spanish economy (24,63% in the second quarter of 2012).
- 74,13% of the people employed in the agriculture and fishing are men (figures from the second quarter of 2012, according to the EPA).
- The average age of the population employed in agriculture and fishing is 43 years (2012). In recent years the population employed in the sector is concentrated mainly in the age groups of 30 to 49 and over 49 years (25,2% and 33,3%, respectively), while employed people below 30 years is reducing (representing 13,5%).
- In Catalonia, in the sector of agriculture and fishing, in the second quarter of 2012 there was 54.100 people employed (7,4% of the employed population of the Spanish economy). This value is 5,1% less than the first quarter of 2012 and 1,1% less than in the second quarter of 2011. Since 2008, in Catalonia, the sector employment fell 8,1% (4.800 fewer people employed).

<sup>4</sup> The unemployment rate in the sector reflects the unemployed in the sector in relation to those working in the sector.

<sup>5</sup> The total unemployment rate of the Spanish economy is 24.63%. In the second quarter of 2012 there were a total of 5.69 million unemployed people.

- In 2012, there are 1.076 farming producers, according to the Catalan Council of Ecological Agricultural Production (CCPA), which cultivate 58.550 hectares.
- According to the 2009<sup>6</sup> Agricultural Census (latest available data), in the province of Barcelona there are 11.995 people employed in the agriculture sector, 36% of them are not in the metropolitan area.

Sources. Latest data available. Monthly Bulletin of the General Technical Secretary of the Spanish Ministry of Agriculture, Food and the Environment, August-September 2011; Spanish National Institute of Statistics (INE); EUROSTAT. *Agriculture and fishery statistics, Main Results 2009-10*; Ministry of Industry, Energy and Tourism; Ministry of Employment and Social Security.

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<sup>6</sup> Prepared by the Statistical Institute of Catalonia (Idescat).

# 05

## Professional profiles most in demand

### Most highly qualified professional profiles

#### Training profile

More qualified professional profiles have engineering or other degrees or higher vocational training in the fields of agriculture, fishing or safety and the environment. There are a number of qualifications linked to the industry, such as agricultural engineering, marine sciences, winemaking, food science and technology, etc.

However, qualifications are not the only requirement for employment in this profession: candidates need knowledge of the main systems for producing arable and livestock products for export that predominate in the country, or of those systems that could make agricultural and aquaculture production more efficient in future.

These professionals also normally work in positions with a certain level of responsibility in which they have to plan human and material resources, so they need to know how to make use of the different socioeconomic variables affecting the development of agriculture and fishing businesses. It is therefore important for them to know about business management tools that could make them more skilled and more effective as managers, especially in the case of large farms, fishing or fish farms. It is also advisable for them to undergo some form of complementary training to teach them about economics and finance.

#### Skills profile

In addition to the knowledge needed to carry out jobs in the industry, it is advisable for more qualified professional profiles to have developed skills in addition to their technical ability; they need entrepreneurial spirit and leadership skills, which must be based on ethical values and a sense of social and environmental responsibility, given the major impact that their activities have on natural environments.

It is also important for people employed in the industry to be able to adapt to the changing circumstances of the production economy, especially those profiles managing farms or fishing, which must also be skilled at managing and coordinating teams of people.

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#### Examples of jobs in the Web Barcelona Treball directory

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- ✓ [Agronomist](#)
  - ✓ [Precision Agriculture Technician](#)
  - ✓ [Manager of aquaculture operations](#)
  - ✓ [Oceanographer](#)
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## Less qualified professional profiles

### Training profile

Less qualified professional profiles require medium-level vocational training in the fields of agriculture or fishing, for example in farming, fishing and sea transport, controlling and maintaining onboard machinery and equipment, etc.

As well as the officially approved qualifications resulting from formal education, it is also possible to obtain level 1, 2 or 3 certificates of professional training in the fields of agriculture and fishing in order to carry out auxiliary farming tasks, agrochemical and biological treatment, herb cultivation, underwater activities for aquaculture facilities, handling and preserving fish products, etc. These certificates are defined and awarded by the National Institute of Qualifications (INCUAL) in Spain and by the Catalan Institute of Professional Qualifications (ICQP).

### Skills profile

The overriding characteristic of these professionals needs to be the ability to adapt to any changes that occur, whether in technology or production techniques. It is also advisable for them to have a great deal of initiative, as many of their jobs are carried out without supervision.

Also, in the same way as with more qualified professional profiles, these professionals need to have strong ethics, as well as being well informed about the environment and sustainability.

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#### Examples of jobs in the web Barcelona Treball directory

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- ✓ [Agricultural foreman](#)
  - ✓ [Fishing boat sailor](#)
  - ✓ [manager of aquaculture operations](#)
  - ✓ [Operator of aquaculture operations](#)
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# 06

## Future scenarios

### Weaknesses

- The development of agriculture and fishing policies and the sustainability of their model are related to the regeneration of natural resources, something which is subject to the specific requirements of each country and the specific problems of people who live in the rural or marine environments where agricultural and fishing activities take place.
- It is an industry which is very dependent on fuel prices, which directly affect the final price of agricultural and fishing products by increasing or decreasing distribution costs.
- It is also a sector with a high dependence on grants and aid. In 2011 Agriculture in Spain had a grant of €6.631 million.
- Climate change has unforeseeable long-term consequences for natural environments, raising uncertainties about the development of the agricultural, fishing and alternative energy industries.
- Employment in the sector has experienced in recent years a significant decline. Thus, between the second quarter of 2008 and the second in 2012, employment has fallen by 11% (88.500 fewer people are employed). As for unemployment, in the second quarter of 2012, stood at 27,7%, 2.9 percentage points higher than the 2011 second quarter value and above the rate of unemployment of Spain economy (24,63%). The situation is very similar to Catalonia, where employment fell by 8,1% between 2008 and 2012.

### Threats

- The progressive depopulation of rural areas, the ageing of the people employed in agriculture and fishing (in Spain, only 13% of farmers are aged below 30 while more than 33,33% are aged over 50), and the lack of young people entering the industry could militate against its development in terms of employment, production and therefore economic importance.
- The reduction in funding for Spain and Catalonia from the European Rural Development Fund (ERDP) for 2007-2013 and under the new Common Agricultural Policy from 2014 (currently being negotiated by EU Member States) could cause the industry's economic expansion to slow down. It is expected that Spain will receive, globally, fewer resources for the sector.
- Countries outside the European Union who produce to lower quality standards than those required in Member States reduce the price competitiveness of the Spanish and Catalan sector.
- The tougher conditions being imposed by credit institutions could lead to delays in modernising the industry, given that this calls for major investment which means bank financing.
- It is a sector that is heavily dependent on weather conditions, as can be seen in the variability of the price of agricultural products.
- The Common Agricultural Policy, and in particular its pricing policies which have helped to guarantee incomes for sector companies and their employees, is set to bring in swingeing cuts starting in 2014.

### Strengths

- Agriculture, fishing and aquaculture are activities of great strategic importance for a country, its self-sufficient development and its wealth. Spain and Catalonia's rich biodiversity is a comparative advantage relative to their competitors.
- Spain and Catalonia are pioneers in turning traditional fishing into modern aquaculture. They are moreover amongst the most committed European Union countries in developing and expanding this activity. Aquaculture in Catalonia, in terms of production, grew by 21,2% between 2010 and 2011, according to the Ministry of Agriculture, Food and Environment.

- Technological and biological advances have contributed to improving the industry's instruments and tools in agriculture, fishing and aquaculture and this has increased efficiency and cut production costs. Moreover, technological changes in the industry have reduced the physical effort required to carry out jobs and improved opportunities to access natural resources.
- The agricultural industry is one of the few to have a policy at the European level, the Common Agricultural Policy (CAP), which seeks the convergence of the different production models in Member States.

### Opportunities

- Technological advances in the agricultural and fishing industry enhance efficiency in production and distribution which in turn makes it possible to improve the balance between exploitation of natural resources and environmental sustainability.
- The building of the Segarra-Garrigues irrigation canal will generate jobs in agriculture, structure the area, increase the economic importance of the industry in Catalonia and boost exports.
- Spain lies sixth in Europe in terms of biomass potential. The industry cannot afford to ignore this capacity and instead should commit to this type of renewable energy.
- Expanding industry professionals' knowledge of economics, finance and the management of large farms and fishing could lead to more efficient production and sale processes, thus increasing profits in the sector.

# 07

## Useful links

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### International organisations

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European Commission: Agriculture and Rural Development  
[http://ec.europa.eu/agriculture/index\\_es.htm](http://ec.europa.eu/agriculture/index_es.htm)

European Commission: Regional Policy  
[http://ec.europa.eu/regional\\_policy/index\\_es.htm](http://ec.europa.eu/regional_policy/index_es.htm)

Food and Agriculture Organisation of the United Nations – FAO  
<http://www.fao.org>

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### Spanish organisations

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Spanish Agriculture Guarantee Fund (FEGA)  
<http://www.fega.es/>

Government of Catalonia's Department of Agriculture, Livestock, Fisheries, Food and the Environment  
<http://www20.gencat.cat/portal/site/DAR/>

Government of Spain's Ministry of Agriculture, Food and the Environment  
<http://www.magrama.gob.es/en/>

Agricultural Chambers of Catalonia – CAC  
<http://www.cambresagraries.org>

Farmers' Union of Catalonia – UPC  
<http://www.uniopagesos.org>

Association of Young Arable and Livestock Framers of Catalonia – JARC  
<http://www.jarc.es>

Sant Isidre Catalan Agricultural Institute  
<http://www.institutagricola.org>

Central Committee for Spanish Farming and Livestock Organisations – COAG  
<http://www.coag.org>

Spanish Agrarian Association of Young Farmers – ASAJANET  
<http://www.asajanet.com/asaja/inicio.do>

Catalan Council of Ecological Agricultural Production  
<http://www.ccpae.org/>

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### International events (fairs, conferences, etc.)

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Alimentaria. International Food & Beverages Exhibition  
<http://www.alimentaria-bcn.com/en/home>

Eurofruit. International Fruit Show  
<http://www.firalleida.com/index.php/home/index/en>

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Agriteco. Mediterranean Agricultural Technology Fair  
[http://www.portalferias.com/agriteco-2011-alicante\\_5496.htm](http://www.portalferias.com/agriteco-2011-alicante_5496.htm)

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**Spanish events (fairs, conferences, etc.)**

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Sant Josep Fair. Catalan Agricultural Machinery Fair  
[http://www.fira.com/tags/fair/sant\\_josep\\_2010](http://www.fira.com/tags/fair/sant_josep_2010)

Sant Miquel Agricultural Fair. National Agricultural Machinery Show. Catalan Agriculture and Livestock Show.  
<http://www.firalleida.com/index.php/home/index/en>

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**Spanish themed portals**

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Agroteritori  
<http://www.agroteritori.org>

Agrotterra. Agricultural business portal  
<http://www.agrotterra.com>

Portal of the Segarra-Garrigues canal irrigation project  
<http://www.regsega.cat/>

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