

## Barcelona Treball

### Summary of sector trends: Agriculture and Fishing

November 2012

# Agrarian sector participation in energy policies

Some of the measures envisaged in the Sustainable Rural Development Programme for the 2010-2014 are aimed at producing energy from natural resources such as biomass and biofuels and to use agricultural and forestry waste. The bet of the agricultural sector for activity diversification, such as energy generation, is key to its development and long-run sustainability.

According to the Organization for International Cooperation (OECD), 92% of Spanish territory is rural and hosts 27% of the population. These data show that **policies aimed at rural areas play a vital role in the management of land, and have to consider issues related to economic and environmental development.**

In fact, the rural environment is the basis of a range of economic activities that go far beyond those strictly related to agriculture. For example, industrial areas, technological service centres, water and energy supply facilities, commercial forests, tourist resorts, ski resorts, agricultural crops, etc..

However, rural policies have historically relied on the development of agriculture. Thus, the growth of agricultural production in Spain between 1990 and 2004 (20%) was among the highest in the OECD countries (the 3rd highest). In this period agriculture was specialized and improved, and created new market niches such as farming. However, since 2008, Spanish agriculture has shown that it cannot continue to be the backbone of rural economy as a source of income and employment<sup>1</sup>.

**In this regard, the new Community Agricultural Policy (CAP) foreseen for 2013, and the local rural development policies, provide strategic guidelines to promote diversification of activities in rural areas, which are transforming traditional agriculture in multisectoral agriculture,**

<sup>1</sup> OECD. Studies in rural policy. Spain. Assessment and recommendations. 2009.

especially in the field of tourism and renewable energy.

Furthermore, diversification of agricultural activities into tourism (such as creating a cottage or wineries open to the public for wine tourism) or energy generation, may be an incentive for trained youth who had to migrate due to lack of job opportunities to return to the rural area.

Agricultural producers are making an important investment in renewable energy, as evidenced by the **farms that generate renewable energy sources from organic material**, or those that produce directly through the adjustment of their facilities to take advantage of rainwater and the energy of the air and sun.

This investment may be increased not only by the support of the CAP and the state and regional aid granted to producers holding technological innovation projects in rural areas, but also by the establishment of measures to improve the self-financing. These measures are concreted, for example, in building **energy self-supply infrastructure** to work in the farm, as biomass boilers to heat the farms.

According to the latest 2009 available data, agriculture and livestock accounted for 10,5% of CO2 emissions. In order to reduce these figures, sustainable rural development must go through:

- Organic agriculture and livestock activities, which would save a lot of emissions.
- The creation of parallel activities aimed at improving self-financing, such as the generation of energy from agricultural waste, and reducing dependence on subsidies.

## Impact on the sector

Spain has clearly opted to become a leader in alternative energy, with a strong diversification and increase in renewable energy sources in the past two decades (in 2007 generated 7% of primary energy and 20% of electricity ). According to WWEA (World Association of Wind Energy), **in 2011 Spain was the second European country (the first being Germany) in wind energy production**, with 21,673 MW.

Natural resources in rural areas increasingly contribute to overcome environmental challenges, through better conservation of these areas as renewable energy sources. For example, solar energy has gained in relevance as a source of energy in large-scale "solar farms", very common in rural areas, which use or combine technologies for solar hot water, solar photovoltaic energy production and solar thermal energy. The production of biomass, biogas and biofuels has also increased<sup>2</sup>.

In February 2011, the U.S. Department of Agriculture released a study conducted in 2009 on renewable energy production in farms. A total of 8.569 U.S. farms had a facility for energy production. The energy savings amounted to \$ 2,400 per farm. Solar panels were the most chosen system.

Moreover, the Agricultural Institute, consisting of agricultural entrepreneurs, has forwarded to the European Commission a set of **proposals for the new CAP in order to position the agricultural economy as a strategic element to end the crisis**. Proposals include several aspects such as environmental and energy sustainability. Specifically:

- To promote, in the field of agricultural or forestry enterprise, **renewable energy generation from raw exploitation material, and enable the agricultural enterprise production of energy (solar and wind)** (the floor, roof, etc. ).
- **Promote the use of forest biomass as a source of heat and / or power energy**, and as a mechanism to improve the forests preservation, reduce churn and the risk of fire.
- Establish measures to support and help **finance the agricultural enterprise to improve and renew the energy facilities** to make them more efficient and reduce the dependence on fossil fuels like oil.

This new scenario may drive the generation of economic activity if:

- Activities of agricultural enterprises and cooperatives are diversified to power generation, with the installation, for example, of solar plants.
- New companies are started, specializing in advising and developing energy self-supply projects aimed at improving the profitability of isolated farms.

<sup>2</sup> OECD. Studies in rural policy. Spain. Assessment and recommendations. 2009.

**During the past decade, rural industry and services grew by 30% and 21%, respectively.**

**The most diversified Spanish rural regions, with activities going beyond agriculture, such as energy generation, have a higher share on GDP per capita, higher demographic growth and lower unemployment rate.**

**In Catalonia there are 52,845 farms with utilized agricultural area, which extends to 790,302 hectares; 71 of them produce for sale renewable energies (wind, biogas, etc..).**

## Impact on professional profiles

Currently there are 50,072 owners of farms, 190 of which are under 25.

Agriculture professionals willing to diversify their activities towards energy policies must be trained in renewable energies or energy efficiency.

Diversification of farming to energy generation is an opportunity to create employment in line with the strategic policies of the European Union. These policies are materialized in initiatives such as the LEADER program.

In this sense, the CAP funding to be managed from the states will also aim at supporting business startups, training professionals and promoting self-employment in sectors related to the use of new environmental technologies, such as alternative energy sources (solar, wind and biomass).

From a labor perspective, the diversification of economic activities in the agricultural sector would:

- Improve "social status" of occupations linked to this world.
- Generate employment.

Professionals required to diversify agricultural activity or to develop energy self-supply infrastructure should be **people endowed with initiative, and ability to take chances and face new challenges**, especially because the agricultural sector is characterized by a certain reluctance to change, which has been reduced over the past decade as a result of the constraints imposed by globalization.

These professionals will require additional training in energy efficiency, renewable energy, climate change, or environmental impacts of agricultural activities.

**0.1% of the job offers from Infojobs and Infoempleo portals, in the months of June, July and August 2012, are for agriculture and fishery sectors.**

However, it has to be noted that not specialized Internet portals are not the main channel for publishing sector job offers.

Nevertheless, this percentage is comparable, for example, to that of the offers registered in the same portals for the aviation industry.

**66.8%** of these offers **require people who are highly trained and skilled in business management and marketing of agricultural and forestry products**, such as, commercial director, or agricultural engineer with technical or higher engineering degrees, mainly agronomist. And 66.7% of them end up in a permanent contract. These offers do not include those of the seasonal jobs, which usually circulate through other channels, such as farmers' unions or agricultural cooperatives.

Furthermore, in the field of renewable energies, 0.2% of the offers correspond to de demand of profiles as production manager, design engineer, installer-logger or mechanical engineer. Therefore, agricultural professionals willing to diversify their activities will have to be trained in areas such as energy production and management of energy exploitations.

In this regard, **economic diversification in the agricultural sector generates quality employment**, since it requires workers skilled in agriculture and renewable energy, with technical expertise, but also with expertise in management and ability to seize new business opportunities arising from the introduction of energy infrastructure in the sector.

**More information about the industry is available on the Barcelona Treball website**

Market >Industries >  
[Agriculture and fishing](#)

This section of the website contains a report on the industry covering aspects on employment issues, where you will be able to take a look at occupational fiches for various job profiles and learn the main resources needed to find a job in the industry.

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