

MALTA

Restructuring and
developing physical
potential and
promoting innovation

Location

Zebbug

Programming period

2007 – 2013

Axis / Priority

Axis 1 – Improving the competitiveness of the agricultural and forestry sector

Measure

M121 - Investments in agricultural holdings

Funding (EUR)

Total budget 321 895
EAFRD 112 500
National/regional 37 500
Private 171 895

Project duration

2013 – 2015

Project promoter

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Investments in renewable energy helped a pig farm to maintain and increase its competitiveness.

Summary

The pig sector in Malta was facing several challenges that were threatening the livelihood of many farmers. These included the exponential increase in costs of imported raw materials for feed and a spike in energy and water bills which led to the closing down of numerous small farms.



Support from the Maltese rural development programme supported the construction of additional farm units, purchase of equipment including a cooling system to mitigate the heat in summer, construction of an underground reservoir, installation of photovoltaic panels.

Results

The system installed generated an annual average of 9 702 kWh contributing to a reduction of 22 % of his annual consumption.

This effectively also meant a reduction of 8 441 Kgs of CO₂ emissions every year.

The modern and more efficient design and equipment led to improved air quality and less emissions through better manure management and handling.

The new structure also ensured adequate slurry storage facilities in order to prevent leakages that could contaminate the water table.

Lessons & Recommendations

- ❑ The EAFRD Measure on investments in agricultural holdings proved to be a very successful tool for environmentally friendly interventions going beyond the classic farm interventions in construction and machinery.
- ❑ The lack of supporting National policies or regulations could have been devastating for this (and similar) projects and has led to long delays in the implementation.

Context

The pig sector in Malta was facing several challenges that were threatening the livelihood of many farmers. The exponential increase in costs of imported raw materials for feed production such as soya beans and corn, coupled with a spike in energy and water bills led to the closing down of numerous small farms which could not bear further the increase in costs. Generally, in comparison to other member states, production costs in Malta are very high as the farmers are almost totally dependent on imported feed and/ or raw material. In addition, cheaper pork started being imported from other EU countries, a factor which exacerbated the challenge of maintaining viable pig farms in Malta. For those reasons many farmers including the beneficiary of this project recognised that unless they invest and restructure they would face the same fate as their counterparts who lost their business and jobs.

For ensuring the competitiveness and viability of the pig farm there was a clear need for improving the efficiency of its operations in order to reduce these production costs and ensure that the farm remains in business for many other years to come. The farmer gathered advice from the managing authority and the paying agency on support opportunities under the Rural Development Programme (RDP), on the application process and on factors determining a successful project implementation, which allowed him to elaborate his project ideas.

Objectives

The principal objective of the project was to modernise the farm, in order to:

- guarantee a viable and competitive farming operation through more efficient use of resource;
- ensure that meeting of animal welfare, hygiene and environmental conditions and standards can be met in the future;
- contribute to more environmentally friendly practices;
- adopt climate adaptation and mitigation actions;
- provide better quality meat products for the enhancing consumers' satisfaction.

Activities

In order to mitigate production costs the farmer invested in an underground water reservoir, which is used to harvest rainwater from the roof of the farm during the rainy season in winter to be then used in the dry summer months. This guarantees a free water reserve for several weeks and higher quality water essential for the wellbeing of the livestock, hygiene on the farm and other practical farm uses.

In order to mitigate the energy cost the farmer installed photovoltaic panels, which contributed to lower his electricity bills whilst contributing to the reduction of greenhouse gas emissions. The farm uses electricity to provide essential treatment to the livestock such as ventilation, heating, water pumping, food mixing machine, cleaning and water heating.

The project activities comprised the following main actions:

- Construction of additional farm units to accommodate better the existing stock and potentially increasing stock capacities, which include excavation works, masonry and block works, concrete and reinforcement works, establishing of rain water collection systems, for both the new and existing buildings, electricity and plumbing works and setting up of apertures.
- Purchase of equipment including a cooling system to mitigate the heat in summer, ventilators with filtration system, plastic floor slats, automatic drinking and feeding systems;
- Construction of an underground reservoir including all excavation, building and roofing, connections for collection of roof rainwater surface run-off.
- Installation of photovoltaic panels.

The implementation of the whole project took around two years. The longest timeframes were devoted to the completion of the construction works followed by the installation of the photovoltaic system. In this case, the farmer experienced delays by the authorities to connect the system with the national grid.

Main Results

The project resulted in a viable and competitive farming operation through more efficient resource use. The achievement was a result of multiple effects and factors arising from the project, which included a faster growth of pigs due to the better conditions (welfare, housing, quality of feeds, water, hygiene and ventilation) and an increase in the production capacity due to faster growth and more space to accommodate additional stock.

This investment in the infrastructure of the farm was also forward looking in that it introduced interventions linked to animal welfare standards, hygiene and environment that go over and above the minimum obligatory standards required by law. By doing so the farmer ensured a smoother transition to new standards and obligations once they enter into force. This was particularly associated with the design of the new building for which high attention was given to the type of floors used, the ventilation system and the size of the pens to ensure better conditions and welfare of the animals. The new structure also ensured adequate slurry storage facilities in order to prevent leakages that could contaminate the water table. The modern and more efficient design and equipment led to improved air quality and less emissions through better manure management and handling.

Through photovoltaic panels not only energy dependency was reduced, but also the carbon footprint due to a reduction in public energy utilisation. The system is calculated to contribute to the farm's self-sufficiency cutting significantly on a huge production expense. Originally the farmer calculated his yearly electricity consumption to amount to 45,000 kWhrs. The system installed generated an annual average of 9,702 kWhrs contributing to a reduction of 22% of his annual consumption. This effectively also meant a reduction of 8,441 Kgs of CO2 emissions every year.

Similarly water bills were significantly reduced due to the large volume of rain water harvested and the fact that the reservoir was underground and roofed meaning that the water loss through evaporation in the hot summer months was insignificant as well as the quality of the water was well preserved and suitable for various uses on the farm. This also resulted in a significant decrease on the reliance of portable water produced as a mix of both desalinated seawater and underground water.

An important result of the increased competitiveness due

to the investments was, that despite enhanced production technologies, which normally reduce the need in man-power, following the investment the farmer could guarantee and maintain the same level of employment on the farm.

The farmer claimed that he has observed that the pigs slaughtered are obtaining a better grade in terms of quality namely leaner meat that in turn is resulting in a better return and income.

The project served as a catalyst for similar investments by farmers in the neighbourhood (not only pig farms but also dairy and poultry farms) that have seen the potential of following an integrated approach to farm development.

Key lessons

The EAFRD Measure on investments in agricultural holdings proved to be a very successful tool for environmentally friendly interventions going beyond the classic farm interventions in construction and machinery. Project proposals that pursued these "green goals" were given additional points during project evaluation and this initially led some of the farmers to include such components in their projects. However, following the finalisation of this project, the popularity of investments in renewable energy increased significantly. Overall, this investment was very important, as it also constituted a showcase for other neighbouring farmers who in turn were convinced by the benefits of adopting a renewable energy plan and invested in similar ways on their farms.

The Managing Authority expressed an important lesson learnt about the need to ensure that the right implementation environment exists for every measure in the future. The lack of supporting policies or regulations could have been devastating for this (and similar) projects and has led to long delays in the implementation.

Both the Managing Authority and a dedicated front office within the paying agency provided targeted information and support to the farmer. This proved very important and useful in order to guide the farmer on how to apply for such interventions.

Investments in environmentally friendly production schemes also pay off. Green energy such as renewables is equally important as any other farm related factor in order to ensure competitiveness.

Additional sources of information

n/a