

ENRD Thematic Group on Sustainability Agreements

CASE STUDY

DCOOP: Collective initiatives and sustainability agreements in a non-recognised Producer Organisation

Introduction

This case study emphasises how sustainability agreements can be applied in the agri-food supply value chain in a **non-recognised producer organisation (a single cooperatives made up of cooperatives covering olive oil, livestock, cereals and almonds)**. In this specific case, different operators in the supply value chain have entered into **horizontal agreements**, between actual or potential competitors, and **vertical agreements**, between different actors operating within the food supply chain, to enhance environmental, economic and social sustainability.



DCOOP - A farmer-owned cooperative with family farming and the environment at its heart

DCOOP is one of the largest cooperative groups worldwide, with different productions including: olive oil, olives, wine, goat milk, nuts and cereals. It is a cooperative of 130 cooperatives formed by partners, aggregating around 75 000 small and medium size producers across Spain and Portugal.

The main objective of DCOOP is to generate prosperity and employment in the countryside, supporting the commercial exchange of sustainable, innovative, profitable and high-quality production.

Improving the sustainability of the agri-food supply value chain is one of the key priorities of DCOOP. To this end, **sustainability practices have been implemented through the value chain supported by investments in Research & Development, alongside the implementation of sustainability agreements.**



Collective initiatives and sustainability agreements

TDCOOP is currently working on the development of a new **sustainable production model**, strategically conceived to provide added value to the surrounding rural environment whilst responding to new global demands and challenges. All DCOOP's activities are based on a recognition of the need to mitigate climate change and enhance the natural environment in a sustainable way.

One way of pursuing this is through a collective agreement for the **centralised purchase of inputs**, which reduces production costs for small farmers as well as for the processing and manufacturing activities of the cooperatives. This activity is focused on the 'collective' buying of inputs such as fertilisers and pesticides for agriculture, fuels, and animal feeds.

The reduction of the cost of inputs for small farmers may be seen as a sustainability action as it improves profit margins and thus economic sustainability.

Other key objectives of this cooperation initiative include guaranteeing a high quality of products; providing services to all the members of the cooperatives; covering a wide-range of farmers' needs; and increasing the level of loyalty, reliability, and trust within the agri-food supply value chain.

Circular economy and sustainability agreements in DCOOP: working for the integral recovery of by-products from the olive production

In 2021, DCOOP started work on the recovery of olive production, including the waste utilisation. The aim is to improve the management of by-products of olive production in the group's ten oil production facilities by recuperating the by-product ('alperujo') for different uses. The 'alperujo' is obtained from the centrifugation of the olive while the oil is being extracted. It is composed of parts of the olive and traces of its oil. Two new processing facilities in Andalucía are being built. This initiative has been made possible through a horizontal agreement between ten olive oil cooperatives.

The main goal of this sustainability agreement is to increase the industrial capacity for the transformation of a by-product (alperujo), benefiting the circular bio-economy.



DCOOP takes the lead in obtaining relevant authorisations and introducing the appropriate environmental management systems, including under the ISO 14001 series. Examples include GHG emissions certification



reporting against the ISO 14001 standard in two of the olive oil factories and the renewal of traditional olive cultivars in new plantations, which entails an increase in the number of olive trees per hectare achieving higher productivity and increased CO₂ fixation. This is a complex set of actions, including efficient fertilisation through integrated production, integrated pest control to reduce the use of pesticides and the minimise applications, reducing CO₂ emissions. and contributing to the aim of a neutral 'carbon footprint' in the olive sector (Eco-Score).

It is expected that the revalorisation of by-products will provide opportunities for increased returns to olive oil producers whilst enabling a more sustainable management of waste derived from the extraction of olive oil, mainly the pomace ('orujo') but also the stones.



Added value for goat farmers, forests and consumers

Spanish goat milk cooperatives, in alliance with the French cooperative Agrial, entered into an agreement that aims to improve the value chain through the start-up of two dairy units for processing milk and cheese using around 43.8 million litres of goat milk per annum.

The Sustainability agreement offers the potential to stabilise market prices and reduce production costs through shared ownership of the transformation of the product, aggregating farmers, adding value, and boosting business profitability. Co-operation through the value chain has reversed the decline of traditional goat farming and avoided the abandonment of extensive goat farms, in a rural environment at risk of depopulation. Continued grazing by goats also plays a key role in forest fire prevention and control.



Sustainability agreement to manage waste of almond production obtaining animal and green energy: DEALMALTEA Research & Development

The main objective of the DEALMALTEA R&D sustainability agreement is the valorisation of the nuts' shells through their inclusion in the feeding of small ruminants (goats and sheep), and the manufacturing of biomass (green energy resource)

Nuts production cooperatives within DCOOP have signed an agreement to revalorise almond waste to produce animal feed and green energy.

The farmers produce around 8 300 tons of shelled almonds (2 600 tons of grain almond), aggregating the production of 12 cooperatives.

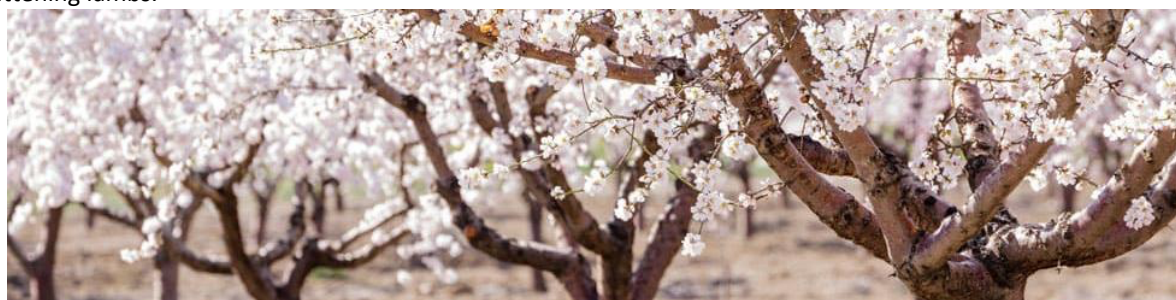
In 2020, the 30-month Research & Development project DEALMALTEA (funded through ERDF) enabled DCOOP to enter a sustainability agreement with DE PRADO and the Spanish Centre for Industrial Technological Development (CDTI) to recover almond shell from the waste stream. To date, some 2 225 tons of biomass has been converted into animal feed and it is also used as green energy.

Benefits resulting from these sustainability agreements:

- The nutritional properties of the almond shells of different almond varieties make it a useful natural crushed, flour and pelletised food for animals.
- These natural feed products result in nutritious and tasty goat milk and lamb meat, benefits which are directly appreciated by consumers.
- The revalorisation of a by-product contributes to the increased profitability for small farms.
- The reuse of almond waste contributes to the improvement of the environment and landscapes, avoiding the abandonment of almond waste in fields.
- The reuse of almond shells for biomass provides a green energy resource.
- Almond shells also provide a domestic alternative to traditional cereals for animal feed, contributing to reduced production costs, especially important given the current global situation with reduced supply and rising prices of cereals.



This initiative represents a clear innovation in the use of almond shells, which will have a positive economic and environmental impact for the production of this dried fruit in the scope of the circular economy. The incorporation of this new raw material in the FEDNA tables¹ is proposed for inclusion in feeding dairy goats and fattening lambs.



¹ Spanish Foundation for the Development of the Animal Feeding (*Fundación Española para el Desarrollo de la Nutrición Animal*). <http://www.fundacionfedna.org/tablas-fedna-composicion-alimentos-valor-nutritivo>



