Water Stewardship in Andalusia, Spain

The case of Iberesparragal

ALLIANCE FOR WATER STEWARDSHIP

WWF EDEKA AND WWF PARTNERS FOR SUSTAINABILITY EDEKA

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The story of Iberesparragal

"Iberesparragal" is a citrus farm in the province of Seville, Spain, which belongs to the fruit distribution company Iberhanse-Naturgreen. Its CEO, Luis Bolaños was worried about the ever-growing challenges facing agriculture globally and locally, especially due to droughts, climate change impacts, biodiversity threats and soil fertility in the Guadalquivir basin, where the farm is located. Luis recognised that changes were needed to protect his farm for the future. This new farming method would require a significant change in farming practices; fields without space for native flora and fauna would no longer be acceptable, farming techniques would need to adapt to ensure strong water management, minimal use of chemicals and a sustainable company able to keep on doing business with international supply chains, supporting the local economy and protecting the environment. This approach would require action within and beyond his farm, through investing in new irrigation infrastructures, capacity building and working with others to ensure sufficient water quality and quantity in the catchment. This future farming would need to be designed and implemented with the environment at the centre.

The EDEKA/WWF Zitrus project

Luis's vision attracted the attention of Iberhanse-Naturgreen's main client, EDEKA, the leading supermarket chain in Germany. EDEKA were already working with WWF through a partnership to encourage good agricultural practices and protect the environment. As a result, EDEKA, WWF and Iberhanse-Naturgreen agreed to work together on the 'Zitrus Project'. This project included a whole range of new or modified activities, including those that improved biodiversity protection, toxic load reduction, improving irrigation practices and working with project partners to implement activities that would create benefits throughout the wider catchment.

The Role of the AWS Standard

WWF has a long work history on supporting good catchment management in Spain, with Guadalquivir as one of their priority river basins, and is a founding member of AWS. As the Zitrus Project progressed, certification against the AWS Standard (www.a4ws.org) presented an opportunity to receive independent, third party certification against a globally recognised standard for the project activities already underway. It also supported stronger engagement with stakeholders throughout the catchment, and identification of further actions which could be undertaken to improve local water quality and quantity, in adherence with the AWS Standard's four outcomes:

Implementing the AWS Standard: Understanding Context and Identifying Water Risks

This was the first agricultural implementation of the AWS Standard in Europe, so it presented a challenge to the farm, which had no prior experience with the AWS Standard and its requirements. However, support from AWS, EDEKA and WWF and local consultancy from Good Stuff International helped the implementation process. It became clear that the ongoing actions of the Zitrus Project, Iberesparragal's own existing experience with other standards such as GlobalG.A.P and the project partners' support provided Iberesparragal with a strong starting point for AWS implementation.

One of the first actions that Luis and his team had to undertake through implementing the Zitrus Project and the AWS Standard was to **improve their understanding of the catchment** from which they abstract water. As they gathered data, they discovered that increasingly **intense agriculture coupled with an anticipated decrease in precipitation due to climate change** posed a considerable threat to future water availability within the catchment. The farm highlighted an improved understanding of the catchment and local stakeholders as one of the main benefits of applying the AWS Standard.

> ***"We had little idea about the catchment we are located in, its water balance, quality, stakeholders and the impact to and from our activity in the farm. The Zitrus Project and AWS implementation provided us a valuable knowledge and understanding on the catchment context we didn't have before"***
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> **Miguel Hidalgo, Operations Manager at Iberesparragal**

Other risks and shared challenges were also highlighted through the Zitrus Project and implementation of the AWS Standard. Some of them were identified thanks to the new high-resolution dataset for Spain developed by WWF and Good Stuff International for the upcoming WWF Water Risk Filter version 5.0.

The farm is located in an area officially declared as "nitrates vulnerable", highlighting the need for action to protect soil for future farming. **Threats to biodiversity** were also found in part due to less water availability but also due to chemical use and a lack of knowledge on environmental flows.

Potential regulation changes and reputational risks were identified through the project. Water allocation regulations in Spain present challenges to farmers and potential changes to these regulations create uncertainty. The water allocation system does not offer flexibility, so even if a farm is shown to be withdrawing less water than

they are allocated, they cannot reduce their allocation and therefore their payments, offering little incentive to reduce water withdrawal. In addition, water allocations are sometimes provided for very long timescales, further exacerbating the lack of flexibility to react to changes in the catchment.

In addition to identifying risks facing the farm, implementation of the AWS Standard also encouraged Iberesparragal to **understand the role of other catchment stakeholders** and to identify opportunities to engage them in taking action to protect water resources. Collaboration and knowledge sharing amongst water users is not common practice in Spain, but through implementing the Standard, Iberesparragal was able to start a much stronger collaborative way of working with others locally.

Implementing the AWS Standard: Developing a Water Stewardship Plan

Based on the risks and challenges found, a planning process was carried out with project partners EDEKA and WWF to prioritize actions and identify where additional actions beyond those already planned within the Zitrus Project were required for AWS certification. The following provides an overview of the targets and outcomes from this collaboration.

Water quantity: An 8% reduction on water withdrawals was the first target identified in the Zitrus project, as it is the precipitation reduction forecasted by climate change predictions. The ongoing project actions on irrigation infrastructure, flow meters and soil moisture sensors were installed. AWS implementation supported this through additional understanding of the catchment dynamics and new methodologies to assist with monitoring against this target (water footprint assessment, Geographic Agricultural Water Footprint Calculator - GAWFC tool, satellite image analysis, and monthly catchment/site water balance). An additional detailed study on environmental flows was also developed by WWF.

- Outcomes: Integrating ongoing and new actions led to an actual withdrawal reduction of more than 15%. Analyses of catchment stakeholders and environmental flows ensured that the saved water remained in the catchment, improving the catchment water balance and supporting the ecosystem. This has also reduced physical risks related to droughts as well as the risk of exceeding Iberesparragal's concession and thus ensuring legal compliance and improving governance.

Water quality: Actions to reduce erosion, retain soil moisture, reduce pests, increase organic matter as well as water quality analyses were included in the Zitrus Project. AWS served as a way to integrate, measure and record data, in line with the water quality targets and identified risks, especially related to nitrates.

- Outcomes: It was possible to evidence a reduction on the use of pesticides and fertilizers derived from all actions, and evidence that water quality in the catchment remained in a good status due to additional water quality analysis downstream from the farm.

Natural ecosystems: Local flora and fauna identification and monitoring and environmental flow studies were undertaken prior to AWS implementation, and additional mapping of important natural spaces in the farm and catchment were carried out through AWS implementation. The target was to maintain or improve those areas in a good status.

- Outcomes: The farm and water important areas such as riparian forests or biological reserve areas have a much healthier status due to reduced use of chemicals on the farm and improved monitoring of biodiversity.

Legal compliance: One of the first requirements of the Zitrus Project was to ensure legal compliance of the farms, through legal audits done by an independent certification body. The AWS Standard provided a system to appoint staff in charge of legal compliance, set yearly revisions and identify new regulations.

- Outcomes: The site can be confident it meets legal requirements and it is therefore less vulnerable to the risks identified. The system guarantees legal compliance in the future, and adaptability to future changes in regulations.

Governance: The AWS Standard provided a framework to identify and map key stakeholders in the catchment and value chain, carry out communications and disclose activities, training or workshops.

- Outcomes: EDEKA, WWF, other farmers, water infrastructure owners, the catchment authority, public administrations and other water users in the catchment were invited to a multi-stakeholder meeting in February 2018. At

the event, Iberesparragal's experience was shared to highlight the benefits of a water stewardship approach and make the case for stronger action in the catchment. The support of WWF was vital in making this a successful event. Additionally, the case was also presented in other national and international forums.

Outcomes and Benefits to the Business

Iberesparragal was the first site in Europe to achieve AWS certification and one of the first recipients of Gold certification globally. Gold certification shows performance beyond core criteria, recognising the substantial improvements and actions undertaken by Iberesparragal. The activities of the Zitrus Project and the combined knowledge and expertise of the project partners were vital in enabling the site to achieve Gold certification, demonstrating the benefits of supply chain and cross-sector partnerships, as well as embedding water stewardship activities within existing project structures.

AWS Standard implementation served to integrate existing and new actions and relate them to the catchment reality. An important learning was that measures taken before implementation can be incorporated into the AWS implementation process.

The main benefits of implementing the AWS Standard for Iberesparragal are:

- Its reputation has been strengthened and its commercial relationship with EDEKA is secured.
- The business has reduced its costs through improvements in water infrastructure.
- Through an improved understanding of regulatory risks, the business can comply with regulations and is ready for possible future changes in legislation.
- The farm management has a much richer knowledge of the catchment, its hydrological dynamics and the stakeholders involved. This enables them to be much better prepared for droughts and climate change mitigation activities, gaining resilience in their business.
- New tools and methodologies have been developed and are being implemented, complementing the existing ones, equipping and empowering the farmer and making things easier for them.
- Efforts are taking place to engage other water users in search of better catchment water management, sharing knowledge, communicating actions and seeking coordination.

- By communicating with the public administrations such as the regional government or the catchment authority, the business is helping to promote good water governance and support the development of public initiatives.
- As this was the first farm in Europe to implement the AWS Standard, they now have substantial knowledge around water stewardship and the Standard and can use this to continue to build their reputation and activities with other farmers. Iberesparragal is owned by Iberhanse-Naturgreen, who now has other farms similarly committed to water stewardship based on Iberesparragal's experience.

El Esparragal reservoir, irrigation water source of Iberesparragal.

Images: Christian Schmid, EDEKA

The Alliance for Water Stewardship (AWS) is a global membership-based collaboration of businesses, NGOs and the public sector. Our members contribute to the sustainability of local water-resources through their adoption and promotion of a global framework for the sustainable water was – the International Water Stewardship Standard. The AWS Standard drives, recognizes and rewards good water stewardship performance.

To learn more about how the AWS Standard could benefit your business visit www.a4ws.org