



CASE STUDY
AGRICULTURAL COMPANY
USES AWS CERTIFICATION
TO LEAD REGIONAL WATER
STEWARDSHIP

AGRICOLA CHAPI

ICA, PERU

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INTRODUCTION TO AWS

The Alliance for Water Stewardship (AWS)¹ is a global membership collaboration comprising businesses, the public sector and NGOs. AWS members contribute to the sustainability of local water resources through their adoption and promotion of a universal framework for the sustainable use of water – the International Water Stewardship Standard, or ‘AWS Standard’, which drives, recognises and rewards good water stewardship performance. AWS defines water stewardship as ‘the use of water that is socially and culturally equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that includes both site- and catchment-based actions’.

AWS works on three fundamental building blocks of water stewardship:

1. The AWS Standard is globally recognised and respected as defining best practice in catchment-focused, collaborative water use. The Standard is being widely used by major water users to help address water risks and bring stakeholders together to resolve shared water challenges. Water users’ implementation

of the Standard is verified by independent third-party auditors, enabling those water users to make credible claims about improving their water use, thereby helping to build the trust needed to ensure the sustainability of water as a precious natural resource. Figure 1 below illustrates the five steps of the AWS Standard 2.0 and the five intended outcomes of its implementation.

2. AWS membership connects progressive organisations from all sectors in advancing water stewardship and enables precompetitive collaborations to flourish at different levels (technical, conceptual and practical). AWS Members seek a more structured way to engage with water stewardship in their country and region.

3. The AWS Global Network is a multi-stakeholder platform to engage different interests in advancement of water stewardship. In Europe, AWS recently convened, with partners, the inaugural meeting of the European Water Stewardship Network, which will enable a direct link among and between European and global water stewardship good practices.

AN ACCESSIBLE ‘HOW TO’ FRAMEWORK FOR SITES TO IMPLEMENT WATER STEWARDSHIP

THE AWS STANDARD FRAMEWORK IS BUILT AROUND FIVE STEPS:

1. GATHER AND UNDERSTAND
2. COMMIT AND PLAN
3. IMPLEMENT
4. EVALUATE
5. COMMUNICATE AND DISCLOSE

**Download the
AWS Standard V2.0
at a4ws.org**



THE STANDARD IS INTENDED TO ACHIEVE FIVE MAIN OUTCOMES:

-  **GOOD WATER GOVERNANCE**
-  **SUSTAINABLE WATER BALANCE**
-  **GOOD WATER QUALITY STATUS**
-  **IMPORTANT WATER-RELATED AREAS**
-  **SAFE WATER, SANITATION AND HYGIENE FOR ALL (WASH)**

Figure 1. The AWS Standard V2.0: Five Steps and Five Outcomes

¹ a4ws.org

OVERVIEW

Agrícola Chapi² (subsequently referred to as Chapi) is an import/export company that has operated in Peru since 1997. Chapi exports fresh agricultural products, such as asparagus, grapes and avocados, to the European, North American, Asian, Australian and Canadian markets.

In December 2019, Chapi committed to implement the AWS Standard. The following year, despite the unforeseen challenges presented by COVID-19, the company continued its efforts towards the Standard to keep water stewardship as a main priority.

This case study demonstrates how agricultural companies can create a pathway to water stewardship³. It makes a new contribution to the understanding of water stewardship in Latin America and in a sector with water as the basic resource for its operations.

Chapi's case is interesting as it shows the momentum that a 'water steward' organisation (taking the AWS certification journey and becoming an AWS Member) can create, inspiring and guiding others to improve their water stewardship.

WHY AWS?

The relationship between AWS and Chapi started when AWS was invited to visit Chapi's facilities in Ica by a Netherlands-based client, a large company that markets fruit and vegetables internationally.

Due to the importance of water to its operations and its interest in water stewardship, Chapi was on the lookout for an international standard. After some research, the company decided on AWS as the most comprehensive, allowing it to raise the bar on its water use.

On 5 December 2019, Úrsula Baertl, Legal and Corporate Affairs Manager at Chapi, along with five CEOs of other agro-exporting companies also operating in Ica, signed a public commitment to water stewardship⁴ and announced that Chapi would implement the AWS Standard.

This public commitment was important as it signalled that those companies involved in agro-export in the region were serious about their responsibility to water stewardship. It also came with some risk, as greater transparency could open the company to potential criticism⁵.

During the implementation of the Standard, Chapi was able to collect detailed information on the water and sanitation challenges facing the population, and the catchment in general. This was already a key issue for the company's CEO, Augusto Baertl, who was motivated to inspire water stewardship leadership and collective action to address common water challenges for the benefit of all, concepts fully in line with the AWS spirit and Standard.

"Agrícola Chapi, for all of its 23 years, has made great efforts to achieve a sustainable vision for the company. Water in Ica is a strategic element that requires a special approach focused on sustainable management. We recognise that there is water stress in Ica and along the Peruvian coast in general. Sustainable management requires that all players unite, come together and manage water adequately. As private companies, we must help those people who the state has left behind, and has not been able, for whatever reason - lack of growth, lack of industry - to give them access to water. We feel we have this obligation as Peruvians. It's important to have a seat at the table, to talk things through, and find solutions."

- Augusto Baertl, CEO, Chapi.

² chapiagricola.com

³ This is of particular importance as development finance institutions, such as Deutsche Investitions- und Entwicklungsgesellschaft (DEG) and FMO: Dutch Entrepreneurial Development Bank, are leading the promotion of water stewardship in Latin America and globally and organisations seeking financing will increasingly need to demonstrate best practice.

⁴ This commitment can be read at: chapiagricola.com/nuestro-compromiso

⁵ Adrian Sym, CEO of AWS, in Ooska News. Available at: ooskanews.com/story/2020/04/water-stewardship-inspiring-leadership-peru-s-ica-valley.179533

CONTEXT

Ica is a region that presents a series of water challenges while being a hub of development. The integrated catchment of the Ica river is one of the most crucial water resources for Peru's economy, supporting a regional economy that contributes more than 3% of national GDP and 7% of total exports⁶.

The integrated catchment of the Ica river spans over 7,889km², formed of the natural basin of the Ica river, the Pacific coast and the upper catchment area of the Pampas river (Choclococha system) in the Atlantic basin. It is located in southwestern Peru, between the departments of Huancavelica (upper and mid-catchment area) and Ica (lower catchment area). It covers 25 municipal districts, 11 of which belong to the department of Huancavelica and 14 to the department of Ica, which means the catchment is under the territorial control of two different departments⁷.

The main challenge facing the integrated catchment of the Ica river is how to maintain economic stability (economic growth, job creation, international competitiveness) along with private investment in an area under water stress, while preserving water resources and promoting social development⁸.

In the Ica valley, cultivated land covers an area of 1,200 km², approximately 17% of the total surface area of the region⁹.

The agricultural export industry in Peru, primarily that based in Ica, faces various water challenges:

1. A poor reputation due to the general misuse of water in the region and for operating in a 'closed' aquifer zone¹⁰, which has led to various stakeholders believing there should be no agro-exports in Ica.
2. Gaps in water, sanitation and hygiene (WASH) services for people in the catchment. Despite the determination shown by the officers of various public bodies to close these gaps, the state apparatus of the country generally still requires improvement to follow this through.
3. The generalisation that all agricultural export companies use water in an irresponsible manner.

These challenges in Ica provided Chapi with the opportunity to pursue the five objectives of the AWS Standard: (i) good water governance, (ii) sustainable water balance, (iii) good water quality status, (iv) important water-related areas, and (v) safe water, sanitation and hygiene for all.

The lack of water services facing the population is not caused by the water imbalance reported by the Peruvian National Water Authority¹¹, nor the prioritisation of water use for particular purposes. The reason people do not have access to water in their homes is, despite the revenues collected from taxes, the state has not yet optimised the system and there are still gaps in infrastructure and a lack of proper management, maintenance and operation. This is also the cause of the deficit in sewage and wastewater treatment services for the population. This situation is not unique to the Ica region but a national issue. The difficulties in achieving an efficient state have become more pronounced due to the COVID-19 crisis, when access to WASH has been more vital than ever.

In 2020, Chapi employed 16,374 people across Peru¹². During the pandemic, agriculture was considered an essential activity by the Government of Peru and Chapi continued to produce food and generate work. Chapi also worked with the government on measures to combat COVID-19, while keeping its efforts to implement the AWS Standard a main priority.

Chapi implemented the AWS Standard across its two Ica sites, 'Doña Julia' (250 ha) and 'Don Ernesto' (850 ha), including its packaging plant¹³.

⁶ OECD, 2021 OECD studies on water: Water governance in Peru. OECD Publishing, Paris. <https://doi.org/10.1787/568847b5-en>

⁷ OECD, 2021

⁸ OECD, 2021

⁹ OECD, 2021

¹⁰ Article 1 of the Chief Resolution 330 – 2011 – ANA: 'Ratify the closed status of the Ica, Villacurí and Lanchas aquifers, which, in accordance with Article 78 of the Water Resources Law, Law No. 29338, will continue to be classified as a "Closed Zone" subject to the provisions of this Resolution.' Article 3: 'The drilling of wells or the execution of any type of work aimed at extracting groundwater resources or increasing extraction volumes remains prohibited... The granting of authorisations for the execution of works or groundwater rights remains prohibited, even in the case of applications for regularisation.'

¹¹ Autoridad Nacional del Agua, Dirección de Calidad y Evaluación de Recursos Hídricos, E Zenteno Tupiño, M Collas Chávez, M Castañeda Zavaleta, C Rojas Vega, et al (2017) Estudio hidrogeológico del acuífero Ica: Memoria final. Ministerio de Agricultura y Riego, Autoridad Nacional del Agua, Dirección de Calidad y Evaluación de Recursos Hídricos. <https://hdl.handle.net/20.500.12543/2490>

¹² 44% of Chapi's workforce are women. Chapi has 1,000 suppliers, 99% of which are located in Peru.

¹³ Certified at Core level as a multi-site operation.

AWS CERTIFICATION AND BENEFITS

GOOD WATER GOVERNANCE

At the site level

Chapi achieved internal efficiencies through the AWS Standard implementation process. To implement the AWS Standard, Chapi appointed a core team responsible for implementation, with the involvement of top management and shareholders in the process. The company strengthened its existing Water Committee, which is at the highest decision-making level of the company and meets every 15 days.

The company achieved greater management, systematisation and standardisation. It moved from having very good information and very good control of the crop irrigation operation to having complete control of all activities involving water use, from drinking water for people in the field to water use in toilets and processing plants.

The focus on water needs in the field has broadened from crop water efficiency to looking at the bigger picture, to the role of the company regarding the watershed. This broadened approach made it clear that collaboration was essential, with the company forming alliances to achieve a greater result than it could alone.

AT THE CATCHMENT LEVEL

Chapi shared water management information with the authorities and plans to share it with other stakeholders with the goal of transparency. It intends to create a dashboard of the most important water management data to be shared on a monthly, quarterly and annual basis. If more companies join Chapi's model, better water governance decisions could be made in Ica and this could even be a useful model at the national level, principally in coastal Peru.

Chapi created a working platform committed to water stewardship to achieve good water governance. It plans to address the issue that currently there is no space that brings the various water stakeholders together. The plans of action that Chapi considers

pertinent are: (i) optimise water regulations to achieve effective governance, (ii) improve efficiency in water use and reduce the water imbalance in the watershed, (iii) target sources of pollution and dumping in the watershed, (iv) protect watercourses and hydraulic infrastructure, (v) understand and address the problems of municipal water and sanitation, (vi) promote policies for the common good, such as recharging aquifers with surplus water.

With other companies in Ica (including companies that are also implementing the AWS Standard) Chapi promoted collective action and financed the 'Water Storage Wells for Recharge' project, infiltrating water into the aquifer.

SUSTAINABLE WATER BALANCE

At the site level

Chapi is implementing actions to increase its water efficiency on a permanent basis. One example of the initiatives planned as part of its current Water Stewardship Plan is the acquisition of a more powerful shredding machine to make better use of avocado peelings as mulch. The pruning is currently being left as mulch, but this new equipment will increase the amount of mulch produced by at least 20%. In this way, moisture is better-retained and improved conditions for soil fertility are created. The company also performs microbiological, physical-chemical and heavy metal analyses to monitor water quality.

At the catchment level

The 'Water Storage Wells for Recharge' project (an environmentally friendly intervention) has resulted in a positive contribution to the aquifer water balance of more than 1 million m³ of water during March and April 2020. The potential of this work in a regular rainfall year is estimated at approximately 5 million m³¹⁴ (the current aquifer imbalance is estimated to be 52.17 million m³). In 2020 alone, Chapi has directly contributed to reducing the water imbalance of the aquifer by almost 2% and projections indicate that almost 10% of the estimated water imbalance of the aquifer could be resolved by this project annually.

¹⁴ As reported by Roberto Ramirez, Operations Manager, Chapi, 2020.

GOOD WATER QUALITY STATUS

At the catchment level

To measure water quality, Chapi will work with the Junta de Usuarios de Río Seco¹⁵ in mapping the salinity and physico-chemical characteristics of the basin. This will form an early diagnosis, so prompt and necessary actions can be taken where there are risks to the water supply both for the population and for irrigation.

For several years, Chapi has been leading an initiative focused on improved environmental management in state schools in the area, including sustainable water management. This initiative considers the implementation of water and drainage infrastructure, as well as promoting the importance of safe water use among children. It is led by the NGO Horizonte Corporativo¹⁶, which is also a Member of AWS.

IMPORTANT WATER-RELATED AREAS

At the catchment level

During extreme rainfall events, the waters flowing down from Pampa Huasi through Yauca del Rosario would cause a lot of damage to crops in their path. A riverbed was naturally formed that was not well defined. Each company affected by the watercourse agreed to channel and restore the watercourse on its property, including forestation with native species on the banks to prevent erosion. The damage caused by these events has been reduced and the water eventually flows into an unoccupied pampa. Every year, before the rainy season, the riverbed is cleaned using machinery to ensure the water flows smoothly.



¹⁵ Juntas de Usuarios are legal entities that are formed as the basis of a common hydraulic sector (Article 5 of Law 30157 - Law on Water User Organisations - of Peru). Functions of Juntas are: a) the operation and maintenance of water infrastructure, b) water distribution, c) administration and collection of water rates (Article 28 of Law 29338 - Water Resources Law). In demarcating the jurisdictions of the Local Water Administrations carried out by the Peruvian National Water Authority, Río Seco was approved with the Jefatural Resolution No. 507 - 2011 - ANA; in terms of its surface water resources: its natural hydrographic system is formed by the basin of the Río Seco stream with characteristics of an endorheic basin due to the lack of surface water resources. In terms of its regulated water resources: it has a predominant technified irrigation system. In terms of its groundwater resources: in the area, the use of groundwater is significant, originating from the Villacurí aquifer (Compendio Delimitación de los Ámbitos Territoriales de las Administraciones Locales del Agua, Autoridad Nacional del Agua y Ministerio de Agricultura y Riego de Perú, 2017).

¹⁶ horizonte-corp.org

COLLABORATION

Chapi was the first AWS certified site in Ica and one of the first companies to join the AWS Ica Network, which is also made up of other AWS implementers and/or Members. Through this network, information, opinions and perspectives are exchanged on challenges related to water in Ica and for water use in general – for example, regulations, policies, technologies – and opportunities to meet and work together. Information was exchanged on developments during the pandemic, allowing the huge challenges that arose to be met (through various measures including cleaning, washing and disinfecting streets, and donating fruit to older people).

Chapi is an active participant in AWS activities. Its commitment to transparency and sharing lessons learned for the benefit of all is reflected in the exchange meetings and co-ordination between the technical and management teams to co-create and organise spaces for the exchange of ideas on water stewardship.

Some examples of collaboration include:

- Chapi's AWS training being shared with public sector representatives and other members of AWS Standard-implementing companies.
- The participation of Chapi's CEO in ExpoAgua 2020, launching the Public Private Platform of the Pueblo Nuevo Pilot Project¹⁷ and to make a Call to Action on Water Stewardship.
- Chapi leaders sharing information on the certification process and giving feedback, contributing to knowledge gathering.
- Chapi's CEO supporting the Pueblo Nuevo Pilot Project from the outset. This is especially valuable as leadership catalyses leadership. The leadership shown by the Chapi team, as well as that of other leading companies implementing the AWS Standard and of public sector institutions, is one of the key factors allowing water stewardship to be achieved at the largest possible scale, facing the enormous challenges of the sector and the pandemic.

"If you don't think about things in terms of long-term sustainability, I mean, if we don't think about water together, we will end up in situations which are much more stressful. We need to be able to do it together - we need to copy the good things that each one of us does, usually privately, and which are not communicated to others. ... I believe that the key is that we - the business owners, society, the state and all stakeholders - have to do this together. We have to see this as something that is real. And I believe that if we unite together as companies, and use a certification system such as AWS, we will be strong enough to manage the problem, and push the state and stakeholders to make use of different solutions in order to reduce the size of this problem."

- Augusto Baertl, CEO, Chapi.

¹⁷ A pilot project with the objective of the Pueblo Nuevo municipality, the technical area in charge of water and sanitation services, achieving AWS certification or recognition. It is hoped this pilot can serve as a scalable model.

CHALLENGES AND LESSONS

Some challenges faced by Chapi and the lessons learned are highlighted in the quotes below:

“The main challenge was to stop thinking only about what we do. ...we have started to look at this as a problem for the company and the watershed and how to manage this in a more efficient way. And I think that outside the company we have to promote reinfiltration in the different areas of Ica. This is urgent now because of all the surplus water that ends up in the sea today.”

- Roberto Ramirez, Operations Manager, Chapi.

“Internally... a little bit about time management and coordination. You have to designate a team that really understands that there is an important investment of time that must be made in the issue in order to move forward. We have taken six months, it probably could have been done in much less time but sometimes we lacked that time, especially the people in operations, the people in the irrigation team - they are doing their day-to-day work, which is quite demanding in itself - so I would say that has been the most complicated thing for me. The time and finding the space to dedicate what resources are required in general to move forward, to move forward with the information, with the documentation, with the things that need to be prepared. It's not something light ... it's quite the task. ... I think that's good ... it makes you think, it makes you document, it makes you organise.”

- Tirco Rojas, Head of Social Responsibility, Chapi, and Project Manager, Horizonte Corporativo.

¹⁷ A pilot project with the objective of the Pueblo Nuevo municipality, the technical area in charge of water and sanitation services, achieving AWS certification or recognition. It is hoped this pilot can serve as a scalable model.

CONCLUSIONS

Chapi's experience highlights how a site becoming AWS Standard certified can inspire a wider commitment to water stewardship among stakeholders and others in the region. Through certification, and taking a proactive leadership role in the region, the company has raised awareness of the need for collaboration to achieve stronger solutions to the water issues facing the area and its people.

Its experience has led to the following valuable conclusions:

1. Implementation of the AWS Standard encourages a greater commitment from the implementing company to water stewardship, bringing companies together and creating a space for dialogue on water issues and alignment towards solutions. It broadens the vision of the issue to include water, sanitation and hygiene for all and wastewater treatment. And it demonstrates that all the major players are on board to address common water challenges.
2. The organisation implementing the Standard benefits from improved management and standardisation of all its water-related processes and the broadening of its approach to sustainable water management work beyond the edges of watersheds.
3. The detailed mapping the Standard promotes is valuable for stakeholders. It gives them the opportunity to offer their voices and requires the implementing company to work with them, looking for joint solutions and considering different approaches.
4. The AWS Standard is an opportunity for innovation and to thrust the implementing company ahead in terms of water management, working with others to face shared water challenges. The actions proposed by Chapi in its Water Stewardship Plan that reflect this innovation are related to: (i) making information on water use more transparent, and (ii) being part of the Public Private Platform for coordination on the AWS and SUNASS¹⁸ Pilot Project in Pueblo Nuevo.
5. Effective and committed implementation of the AWS Standard requires the involvement and leadership of the organisation's top management.
6. The collection of information on water and sanitation issues at the watershed level can be valuable to the organisation as it allows it to gain a good understanding of the watershed's problems and proceed with designing solutions. It should be noted that not all information is currently retrievable, and that some existing information is outdated.
7. Achieving the Standard motivates the company's employees, because it recognises their role in the organisation's water management.
8. The Standard provides guidance or encouragement for the implementer for collaborative action on shared water challenges.
9. Chapi has directly contributed to improving the basin's water-related indicators, such as the water balance following infiltration into the aquifer. In addition, it has designed its Water Stewardship Plan for the coming year, which includes more actions supporting people and the catchment.

¹⁸ Superintendencia Nacional de Servicios de Saneamiento de Peru

“Yes, it is definitely worth it. For me it’s more a question of order – if you’re really concerned about improving water stewardship, you have to understand the situation around you. ... I would recommend it, and especially for the agricultural export sector. I repeat that water is one of the most important resources that we have, if not the most important. Any company working in a sector which relies so heavily on water will need to think not only about water stewardship as an operational problem, but rather as a central one. The management of a company should view water stewardship as being of fundamental importance, and I believe that the AWS Standard gives you this. It helps substantially.”

Tirco Rojas, Head of Social Responsibility, Chapi, and Project Manager, Horizonte Corporativo

“I would certainly encourage other companies to implement the Standard. I believe that it has been ideal for Chapi. I know of many companies ... who work on problems like water sustainability, and who understand sustainability deeply. What they need is to articulate this, and certification is a good way of doing so, and of seeing beyond the boundaries of their territory. I fully recommend it. ... AWS has given us a lot, there is no doubt about that.”

Roberto Ramirez, Operations Manager, Chapi

This case study is part of a collection of water stewardship case studies that are found on the Alliance for Water Stewardship website. To learn more, visit a4ws.org