SIFAV 2025 – Water Standards Benchmarking

Good Stuff International B.V. – 2023/24

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SIFAV 2025 – Water Standards Benchmarking

1. Background

IDH hosts a specific initiative for Fruit and vegetables, The Sustainability Initiative Fruit and Vegetables (SIFAV). SIFAV has a strategic program for 2021-2025 focused on embedding water as sustainability topic. Companies that participate in the SIFAV 2025 program are expected to:

- Measure water KPIs and drive responsible water use in three jointly selected water catchments
- Require Good Water Management from its supplying farms situated in high water risk countries through the implementation of good water standards.

As a way to help companies reach the aforementioned objectives, IDH-SIFAV has supported and funded the development of this study. A first version was produced in the first half of 2021 and in 2022, additional standards were benchmarked, including their results in an updated version of the report.

2. Objectives of the work:

Firstly, an objective of this work is to provide clarity on the role of good water management in the broader context of Water Stewardship and water sustainability in Fruit and Vegetable production, understanding that actions beyond the farm, seeking catchment level understanding and collective solutions, need to be integrated with good farm water management in fruit and vegetable production located in high water risk areas.

Secondly, this work aims to provide guidance on Good Water Management, SIFAV wants to assess how the requirements of different standards that are widely used in Fruit and Vegetable production cover water aspects. What is not part of the benchmark is the assessment on how the requirements of the standards are assured and what schemes might be doing in addition to the standards themselves to enable producers to do good on-site water management and to engage with local actors for collective off-site action. So far, 19 sustainability standards have been analysed against a defined set of water criteria, in which the notion of Water Stewardship has been incorporated. With this information, SIFAV intends to develop a “Basket of Water Standards” to offer to SIFAV members.

In addition to that, SIFAV has been putting more emphasis on collective action and water stewardship on the ground, for instance through the work in the Ica catchment in Peru[1], or through its collaboration with

[1] https://sifav.com/sifav-kicks-off-groundbreaking-water-stewardship-project-in-peru/

WRAP[2] on water stewardship in the South of Spain[3]. This study is intended to support standards systems in identifying gaps and areas for strengthening their requirements, given the broad coverage of water-related aspects that are key for managing water risks and are of increasing importance in the global agri-food sector and consumer demands. This presents an opportunity to find ways to strengthen agricultural standards, which is also one of the Pillars in the WRAP work programme. Similarly, this work seeks to support organizations that participate in these initiatives together with various companies in the food sector or retailers, to have more information when making decisions regarding the use of standards in their supply chains.

This document also aims at encouraging producers and their supply chain partners to embrace Water Stewardship in their practice, being aware that on-farm good water management is an important step, but not enough to face water challenges in high water risk areas. It should be seen as an opportunity to increase the resilience of their businesses and the catchments and ecosystems they rely on, and to gain sectoral leadership through anticipating the trends in sustainability aspects in agricultural value chains.

3. Water Management and Water Stewardship

Across the water-focused landscape of NGOs, companies, development agencies, financiers, think tanks, scientists, researchers, regulators, and civil society organisations there is consensus that water-related challenges fundamentally reside in the catchment and that collaborative solutions are a necessary mechanism through which to manage water risks, reach water security and increase resilience. Water stewardship has been widely accepted as the catch-all term for the group of actions required to appropriately engage the users of water, the retailers and brands influencing that water use, and the local communities, civil society and public sector actors impacted by water use via globalised procurement.

Good water management is a process whereby sites gather data and act upon the findings of their own water use within a site. Examples of good water management include pollution and abstraction controls and monitoring, on-farm governance procedures and legal compliance systems, implementation of best practices in efficient irrigation systems or ensuring adequate access to water, sanitation and hygiene for workers. It is crucial to promote good water management at the farm level and is the first step that any producer needs to take in order to be considered water sustainable. However, Water Stewardship builds outwards from water management to data collection, planning and actions that involve engagement and alignment with relevant stakeholders that a site shares resources with. Water Stewardship is defined 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*." (Alliance for Water Stewardship, 2019)

[2] SIFAV in the Netherlands and WRAP in the United Kingdom have a formal collaboration with each other on achieving their water targets with their members and business supporters, and preventing duplication. The work on standards is a contribution to this collaboration as well as their joint engagement in collective action projects in the regions mentioned.

[3] https://wrap.org.uk/taking-action/food-drink/initiatives/courtauld-commitment/courtauld-2030-water-roadmap/water-roadmap-collective-action-projects/southern-spain

The ultimate goal of Water Stewardship is collective actions by sites with other water-related stakeholders that align with basin water plans and other consensus and context-based activities beyond the site at the scale of the catchment. In the highest water risk locations, the challenges will be a complex mix of factors incorporating water balance and abstraction, pollution and water quality, governance, ecosystem health and access to WASH services. The ultimate solutions to such challenges will reside in collective responses within the catchment.

4. Methodological references

The main reference for this work is the WWF/EDEKA document "*Water risk in agricultural supply chains: how well are sustainability standards covering water stewardship (WWF/EDEKA, 2017)*[4]". This is the most recent document that addresses how water is covered by different sustainability standards. This document is a continuation of the study "*Strengthening water stewardship in agricultural sustainability standards: framing collaborative solutions to mitigate water risks (WWF/EDEKA, 2015)*[5]", which is based on the WWF approach for standard systems evaluation, the *Certification Assessment Tool (CAT)*[6]. This work is following the same logic and builds on the existing methodology and GSI's expertise on relevant aspects for water and agriculture.

5. Defining the list of standards

In order to get to a final list of standards to include in the benchmarking assessment, 3 main sources were used to define a preliminary list of standards to include in the benchmarking assessment: Standards proposed by IDH, Standards included in the WWF/EDEKA document, the lists of standards in the 2021 and 2022 benchmark reports and standards identified by GSI through prospecting, with a focus on standards widely used in Fruit and Vegetables.

Once the standards were gathered, a high-level revision on how the listed standards' requirements address water aspects was performed, as a way to prioritize the final selection of standards. After this analysis, a preliminary list of 30 standards was produced. After different considerations on standard implementation strategies, key issues in production areas and other relevant aspects for SIFAV members,

[4] WWF. (October, 31., 2017). Water Risk in Agricultural Supply Chains. https://wwf.panda.org/?315290/Water-Risk-in-Agricultural-Supply-Chains

[5] WWF & EDEKA. (2015). Strengthening Water, Stewardship in Agricultural Sustainability Standards. https://d2ouvy59p0dg6k.cloudfront.net/downloads/wwf_strengthening_water_web.pdf

[6] WWF. (2015). WWF Certification Assessment Tool (CAT). https://wwf.panda.org/?228430/WWF-Certification-Assessment-Tool-CAT

a final list of 15 standards systems + 3 Global GAP Add-ons[7] were selected for the full benchmarking assessment (see table 1).

Table 1. Final list of Standards selected for the Benchmarking assessment. Dark green are Global GAP Add-Ons and light green are standards for organic produce. (: Only applicable in South Africa, **: Only applicable in Spain)*

Alliance fo Water Stewardship (AWS) Standard V2.0
Bio Suisse
Demeter
Fairtrade standard (Hired Labor)
Fairtrade standard (Small-scale Producer Organizations)
GlobalG.A.P. IFA - Fruits and Vegetables V6.0
GlobalG.A.P. + Add-On: Siza Environmental V1.1*
GlobalG.A.P. + Add-On: FSA by SAI Platform V3.0
Global.G.A.P. + Add-On: Spring V2.0
ISSC Plus 3.2
Leaf Marque
Naturland
On the way to planetProof
Rainforest Alliance Sustainable Agriculture Standard 2020
Farm Sustainability Assessment FSA by SAI Platform V3.0
SIZA Environmental Standard*
Sustainably Grown
CAAE Legal and sustainable water use**

Inclusion of the '*On the Way to Planet Proof (OTWTPP), CAAE legal/sustainable water and LEAF Marque + Global.G.A.P.' combination*

It should be noted that the inclusion of the *OTWTPP, CAAE* and *LEAF Marque* in combination with the GlobalG.A.P. Standard in the Final list of Standards selected for the benchmarking assessment was requested by IDH SIFAV. The rationale for this was that while these standards are not formal GlobalG.A.P. Add-on modules like SPRING or SIZA, they are generally implemented when GlobalG.A.P. certification is in place, leading to combined audits. While this may be the most common case, there is currently no official requirement in the *OTWTPP, CAAE* and *LEAF Marque* certification schemes on preliminary compliance with GlobalG.A.P.. This means that a grower could get certified with the *OTWTPP, CAAE* and *LEAF Marque* standards without a GlobalG.A.P. certification in place. To provide clarity on the benchmarking outcomes, *OTWTPP, CAAE* and *LEAF Marque* standards were benchmarked both individually as well as in a combined audit with Global G.A.P.

[7] Global G.A.P. Add-Ons were assessed considering the score of Global GAP (All Farm Base/Crops Base/Fruit and Vegetables) + Score for the different Control Point in the Add-Ons

6. Proposed methodology

As mentioned before, this work follows the WWF/EDEKA document "*Water risk in agricultural supply chains: how well are sustainability standards covering water stewardship (WWF/EDEKA, 2017)"* as a main reference. In light of credibility and robustness of this study, the methodology proposed seeks continuation and further development of the WWF/EDEKA Assessment Framework and the principles of Water Stewardship. The WWF/EDEKA 2017 document included a set of 23 criteria that assess (providing a score 0 – 3) how standards cover different aspect related to water, across the 4 outcomes defined in line with the Alliance for Water Stewardship (AWS) outcomes as per the AWS standard V1.0 (Water Governance, Water Balance, Water Quality and Important Water-related Areas).

Using this framework as a reference, and including ideas from other studies, recent developments and experiences from GSI, and aiming at adding clarity and systematics, a revisited assessment framework was produced. This includes 19 criteria across 5 areas in line with the Alliance for Water Stewardship (AWS) outcomes, which are now 5 instead of 4 in line with the new version 2.0 of the AWS standard published in 2019[8]. Together with them, 2 additional criteria were included to understand to what extent each standard has a focus in water and agriculture.

The methodology proposed in this document incorporates the notion of Water Stewardship, and promotes its approach to address risks and water challenges that require a catchment-level understanding and collaborative action. The comparison of standards is predominantly on aspects of on-site water management because most agriculture specific standards primarily promote on-site water management actions. However, the assessment framework has been designed with the perspective to identify to what extent the approach of each standard is compatible with the water stewardship outcomes of the AWS Standard, and to elevate ambitions towards incorporating stronger water stewardship aspects. A summary of the assessment framework is presented in table 2.

It is important to highlight that the methodology proposed consists of applying the different criteria included in the assessment method equally against the selected standards. What is assessed is the standards' criteria and indicators/requirements as well as guidance documents when they exist, against the water criteria listed below. The assessment does not include internal aspects in the standard management systems, political/historical importance of the standard, nor related or referenced national/regional legislations.

[8] *5 outcomes in the AWS standard V2.0 (2019).* https://a4ws.org/the-aws-standard-2-0/

Table 2. Summarized version of the IDH/SIFAV standards Assessment Framework

	Water relevance
	Agricultural relevance
1	**1. Water Governance and Management**
1.1	Legal Compliance
1.2	Water context: Consideration of catchment - water related aspects
1.3	Water risk: Consideration of catchment impacts
1.4	Future Scenario & Resilience Planning
1.5	Site water management plan or policy ideally backed by leadership commitment
1.6	Stakeholder mapping
1.7	Stakeholder engagement and collaboration / Collective Action
1.8	Supply chain engagement
2	**Water Balance**
2.1	Consideration of farm Quantitative water use information
2.2	Consideration of catchment Quantitative water use information
2.3	Water use efficiency
3	**Water Quality Status**
3.1	Consideration of farm Qualitative water use information
3.2	Consideration of catchment water quality information
3.3	Water quality management: fertilizer, pesticides, soil management/ erosion, waste management
4	**Important Water Related Areas**
4.1	On-site good practices in biodiversity and ecosystems protection.
4.2	Consideration of catchment Water-related Areas information
4.3	Management of Riparian, Wetland and other Water-related Areas Off-site
5	**Water ans Sanitation for All - WASH**
5.1	WASH on-site
5.3	Support Access to WASH off-site

Why has the WWF/EDEKA assessment framework been revisited?

Apart from the information structured across 5 sections following the 5 AWS outcomes (table 2), there are transversal layers of information that were obtained from the analysis and were structured systematically to inform the basket. For example, one key piece of information was to understand to what extent standards address 4 key areas (Catchment, Stakeholders, Ecosystems and Water and Sanitation for All – WASH). A second piece of information was to assess how they cover on-farm and off-farm water aspects, as well as how they support implementation of guided and informed actions and measures.

For that, it was necessary to clearly differentiate criteria focused in on and off-farm aspects, and criteria towards collecting information, understanding/assessing the information collected, and implement specific actions. The more balanced results of those 3 aspects, the more guided and informed will the actions be. See Annex 1 on complete results to know more.

Revision of criteria on legality and collective action

In the 2023/24 update, the standard assessment framework has been revised for some of its criteria related to legality and collective action (1.1 and 1.7). In the case of the criteria on legality, the increasing demand from markets for more robust methods to verify legality in agricultural production has been a key driver to carry out this revision. Legality in water use, and also in land use is a key aspect in food hubs like southern Spain, where illegal practices in agriculture are linked to impacts in ecosystems. The WWF guide to verify legal water use in agriculture (WWF Spain, 2021[9]), which defines a set of criteria and process to verify key legal aspects on water and land use, was used to inform the revision of the criteria on legality.

The revision of Criterion 1.7 on collective action responds to the growing interest in this issue globally, mainly from the water stewardship community, companies and especially agricultural value chains. To channel and support this interest, WWF started and led a collaborative process to co-create a paper to unpack collective action for water stewardship. Different NGOs, experts and companies are engaged in this process. The outcomes up to now are: a global map of collective action opportunities[10], the presentation of a draft paper to unpack collective action[11] during 2023 Stockholm World Water Week and a commitment by a variety of stakeholders to collaborate on collective action initiatives in catchments with shared interests. In line with this growing interest and building on the outcomes above, the evaluation criteria for this aspect have been revised to increase the level of ambition in incorporating aspects related to the need to promote and engage in collective action into the requirements of the standards.

7. How does the Assessment framework work?

This scoring system works like the one included in the WWF/EDEKA studies (see table 3 below). Each criterion evaluates how each standard's requirements covers a certain water-related topic, providing a score 0-3, based on how the standard covers the topic addressed by each criterion.

Table 3. Scoring system used in the assessment framework (WWF/EDEKA, 2017)

Score	Grade and description
Score 0	No significant fulfilment of criterion
Score 1	Limited fulfilment of criterion / indirectly referenced (significant gaps)
Score 2	General fulfilment of criterion (limited gaps)
Score 3	Substantive fulfilment of criterion (very limited/no gaps)

For example, one of the criteria is "1.1 - Legal compliance". If the standard under assessment…

- …does not require any evidence of legal compliance, it gets 0.
- …makes reference to legal compliance but does not specifically require evidence, it gets 1.
- …requires legal compliance but does not include water-specific or land use requirements, it gets 2

[9] https://wwfes.awsassets.panda.org/downloads/wwf_legalusewater_en.pdf

[10] Water Action Hub – 100 priority basins https://wateractionhub.org/100basins/

[11] Draft paper on "Unpacking Collective Action In Water Stewardship":https://wwfint.awsassets.panda.org/downloads/unpacking-collective-action-in-water-stewardship--stockholm-2023-version-.pdf

- …requires evidence of legal compliance including water-specific and land use requirements, it gets 3

The different standards were analysed in detail against the assessment framework, and once the assessment was complete, a second analysis was performed to validate results. In the end, results show a final score for each standard for all criteria and averages per section. Complete results for each criterion and averages per section can be found in Annex 1.

8. The Basket of Standards

With the full scores and results in place, a set of additional requirements were established for standards in order to get to the final basket of standards:

1. Standards must properly cover (score 2/3) criteria considered as "Critical" for water and agriculture

   ✓ Mechanisms to ensure legal compliance
   ✓ On-farm monitoring water quantity and efficient use
   ✓ On-farm monitoring water quality and water quality management

2. It was assessed how standards cover 4 Key areas for water and agriculture. Each key area gets a score from the average of different criteria related. All standards must cover them at a minimum, not get 0 in any of them:

Figure 1. 4 key areas identified for the definition of the basket of standards.

3. Finally, an average of the 4 key areas is calculated. Standards included in the basket must reach a **minimum of 1.8** as average to get to the basket. This threshold, above the average of all standards, was set assuming it as the minimum considered representative of a balance between the 4 key areas:

Table 4. - Summary results for each standard

	Rainforest Alliance	GlobalG.A.P.	GlobalG.A.P. + SPRING Add-On	AWS	SIZA	GlobalG.A.P. + SIZA Environmental add-on	FSA by SAI platform	GlobalG.A.P. + FSA Add-On	Sustainably Grown	On the way to Planet Proof	On the way to Planet Proof + GlobalG.A.P. combined audit	Fairtrade (Small Farmers)	Fairtrade (Hired Labor)	ISCC	Bio Suisse	Naturland	Demeter	Leaf Marque	Leaf Marque + GlobalG.A.P. combined audit	CAAE	CAAE + GlobaG.A.P. combined audit	AVERAGES
Key area: Catchment	1.4	1.4	1.8	2.3	1.5	1.7	1.4	1.5	1.7	1.8	1.9	1.4	1.4	1.2	1.8	1.9	0.7	1.7	1.8	2.0	2.0	**1.6**
Key area: Ecosystems	2.5	1.7	2.2	2.0	2.3	2.3	2.3	2.3	2.3	2.1	2.1	2.3	1.8	1.8	2.0	2.1	1.8	2.3	2.3	2.1	2.1	**2.1**
Key area: Stakeholders	1.6	1.2	1.6	2.0	1.4	1.6	1.6	1.6	1.6	1.8	1.8	1.6	1.8	1.4	1.8	1.6	1.2	1.6	1.6	1.6	1.6	**1.6**
Key area: WASH	2.0	2.0	2.0	2.5	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.5	2.5	2.0	2.5	2.0	2.0	2.0	2.0	1.0	2.0	**2.0**
Average of 4 Key areas	**1.9**	**1.6**	**1.9**	**2.2**	**1.8**	**1.9**	**1.8**	**1.9**	**1.9**	**1.7**	**1.9**	**1.9**	**1.9**	**1.6**	**2.0**	**1.9**	**1.4**	**1.9**	**1.9**	**1.7**	**1.9**	**1.8**

The final basket includes the standards that comply with these requirements (More details on the logic and criteria used for definition and calculation of scores in critical aspects and key areas can be found in Annex 2):

Figure 2. Final Basket of Water Standards

9. How to use the basket of standards

Results show that AWS is the standard covering all critical and key aspects best. Global.G.A.P.+ SPRING comes after, together with Rainforest, Fairtrade (Small farmers and Hired Labor), Sustainably Grown, BioSuisse and Naturland Organic standards, and the combination of Global.G.A.P. with On the Way to Planet Proof, SIZA, FSA/SAI, and CAAE. However, decisions to implement or recommend one standard or another may depend on many different factors

The first step implies an identification of agricultural production sites that are situated in a water risk area. This can be done with the help of different Water Risk Assessment global tools and indicators, such as the WWF Water Risk Filter or the Baseline Water Stress (BWS), included in the WRI Aqueduct Risk Atlas. If possible, gather additional information from producers would help identifying the main water aspects or key issues to be addressed from a local perspective.

Then, if a site is confronted with water quantity or quality aspects associated with agricultural activity, it is first necessary to know if they represent a high level of risk. If the water risk is high, it is necessary to adopt a catchment and stakeholder engagement approach, beyond the site where the agricultural activity takes place. Typically, this will be the most common case and the first recommendation would be to apply the AWS standard, as it is the standard covering these aspects in the best way.

Also, Global.G.A.P. + SPRING (Also SIZA in the case of South Africa or CAAE in the case of Spain), the combination of Global.G.A.P. + On the way to Planet Proof, and BioSuisse or Naturland for organic produce

are recommended options to improve site water quantity and quality management. These standards also incorporate aspects towards Water Stewardship. They are the most balanced standards across the 4 Key areas and the ones scoring higher in Catchment and stakeholders focus. As such, they represent a reasonable option to start working in the direction of water stewardship.

If water quantity or quality do not represent relevant risks but instead, ecosystems represent a risk due to deforestation, land use issues, biodiversity threats, or environmental flows, AWS or SPRING are still good options but Rainforest Alliance, Sustainably Grown, Global.G.A.P. and LEAF Marque combined audit or Fairtrade (especially for the case of small-scale farmers) could be considered, as they cover ecosystem-related aspects more broadly, and also incorporate some aspects towards Water Stewardship.

Finally, if there are no relevant risks identified, Global.G.A.P. (All Farm Crop base module) is a good basis to start working on water management. Regardless of the standard to implement, it is recommended to take a Water Stewardship approach in all cases and work iteratively to increase catchment-level knowledge and understanding, and aim at collective action within the catchments. Following the AWS standard as a framework is also a recommended option to support further uptake of Water Stewardship practice.

10. Main findings and general notes

- AWS is the standard covering all critical and key aspects in the best way. Global.G.A.P. + SPRING comes after, together with Rainforest, Fairtrade, Global.G.A.P.+ SIZA add on, Global.G.A.P. + On the way to Planet Proof, Global.G.A.P. FSA add-on, Global.G.A.P. + CAAE combined audit, Sustainably Grown and BioSuisse and Naturland for organic produce.
- Since the first version of this benchmark analysis in 2021, different systems have strengthened their requirements on water-related aspects. The average scores have risen and the incorporation of more ambitious aspects in key water-related areas is evident in most systems.
- All benchmarked standards except one have an agricultural focus, and although many include off-farm aspects towards Water Stewardship, the main focus is on good farm water management on site. The AWS Standard is the only standard that is not sector nor regional specific. Its focus is to promote Water Stewardship through a standard that is applicable to in a broad number of sectors including agriculture. In that sense it is different from the other standards and because of its focus on Water Stewardship it obtained the highest score.
- Some of the standards in the basket are below average in some of the 4 key areas, mainly in catchment and stakeholders. It is recommended that these standards, incorporate additional aspects to cover these key areas, like better identifying the catchment and associated risks or mapping stakeholders.
- Some standards like On the Way to Planet Proof or CAAE do not include requirements regarding access to WASH on-site or off-site, causing their scores being below the average as stand-alone standards. While these are strong standards in the other 3 areas, the missing requirements are covered through the assumption that all sites implementing these schemes are also Global.G.A.P. certified.
- All standards had a gap in the category of supporting access to WASH off-site. AWS, Fairtrade, BioSuisse and Rainforest Alliance standards scored the highest (2 points) in this category, nevertheless, all standards can improve on this this criterion.
- On-farm optimal management is not enough to address complex water challenges. It is necessary to move towards catchment-level understanding and collective action. This Water Stewardship

approach may imply a long journey for a producer. It is good to start using standards that promote good on-farm water management and some Water Stewardship components, but not to stop there. It is recommended to keep on incorporating actions to better understand the catchment, engage stakeholders and promote collective action to address shared water challenges.

- While many standards are incorporating requirements on collective action, what this means for sites being certified has yet to be further defined. Sometimes these requirements are not mandatory or simply involve participating in meetings with irrigation communities or local forums, without setting specific targets for the water context. All standards can improve the criteria on this topic building on recent collection thinking, learnings and implementation practice.
- Synergies and cross-overs between standards are an opportunity to strengthen standard user ambitions on Water Stewardship, connect water management champions and bring them together in water stewardship dialogues, capacity building activities (For example, on key local catchment particularities or legal verification processes) to increase wider catchment-level impact.
- Following the editions of in 2021 and 2022, this report presents the state of play in 2023 on how well 21 standards - that are commonly applied in fruit and vegetable production - address the topic of water and water stewardship. Standards scoring lower than and or close to the threshold of 1.8 are encouraged to work towards incorporating more ambitious criteria in line with the key areas. If and when standards are updated, it is intended to revisit these and redo the benchmarking exercise and produce a new edition of this report.

11. Advice on next steps

- This assessment is a desktop analysis that has been performed against the standard documents, checklists and some guidance and supporting documents, but not the standards' assurance systems nor local/sectoral/contextual details and aspects. Decisions to implement one standard or another may depend on factors that are also not contemplated in this study, such as implementation costs, capacity, or local availability of auditors and experts.
- Some standards score high under this assessment, and some score low, but that does not necessarily mean they are good or bad standards. It could be the case that a standard is very specific in certain farm-level practices that may contribute to a healthier catchment, but is not specifically addressing catchment-related requirements. In that sense, for the future it would be very relevant to better understand how standards are achieving the goals they seek, and identify and assess how each standard contributes to achieving catchment-level impacts and positive outcomes on the ground.
- It would also be very relevant to include how the standards are used, implemented, and how they are verified by third parties in future assessments, to consider aspects that ensure that standards are implemented in a reliable way, and to better understand and assess how audits are performed.
- In any case, the "perfect standard" does not exist. Indicators or control points included in Standard schemes can be interpreted in different ways by implementers and/or auditors, resulting in more or less strict requirements and more or less efficient measures. In this sense, it is very relevant to promote capacity building with implementers or auditors to align on key concepts or interpretations especially related to water stewardship, as well as promoting local guidance documents or materials.
- In general, standards have an opportunity to increase more specific requirements and additional guidance in some key aspects related to water stewardship. One of them is legal compliance, which is covered by all standards, but in some cases, only as a preliminary requirement that implementers should comply with all applicable national or regional regulations that is not very specific about what and how to verify. This could be strengthened through providing, linking to or supporting regional-specific guidance documents or methodologies to ensure and verify compliance with water or land use specific criteria.

- There is also room for improvement in standards around catchment-related aspects and more specific requirements on mapping the farm(s) in relation to the catchment context, water bodies or ecosystems, as well as collective action. Including additional guidance and promoting capacity to this regard could be an opportunity to increase understanding of the local context, relevant stakeholders, shared challenges and better coordination of adequate farm and catchment-level collective actions.

Annex 1. Full table of results.

Key Areas	Critical	CRITERIA	Rainforest Alliance	GlobalG.A.P.	GlobalG.A.P. + SPRING Add-On	AWS	SIZA	GlobalG.A.P. + SIZA Environmental add-on	FSA by SAI platform	GlobalG.A.P. + FSA Add-On	Sustainably Grown	On the way to Planet Proof	On the way to Planet Proof + GlobalG.A.P. combined audit	Fairtrade (Small Farmers)	Fairtrade (Hired Labor)	ISCC	Bio Suisse	Naturland	Demeter	Leaf Marque	Leaf Marque + GlobalG.A.P. combined audit	CAAE	CAAE + GlobalG.A.P. combined audit	AVERAGES
		Water relevance	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	3	3	2.1
		Agricultural relevance	2	2	3	1	3	3	3	3	3	3	3	3	3	2	3	3	2	2	2	3	3	2.6
	1	1. Water Governance and Management																						
	1.1	Legal Compliance	2	2	3	2	3	3	3	3	2	2	2	2	2	3	2	2	2	2	2	3	3	2.4
	1.2	Water context: Consideration of catchment - water related aspects	2	2	2	3	2	2	2	2	2	2	2	1	2	1	2	2	0	2	2	3	3	2.0
	1.3	Water risk: Consideration of catchment impacts	1	2	3	3	3	3	2	2	2	2	2	1	1	2	3	3	1	2	2	3	3	2.2
	1.4	Future Scenario & Resilience Planning	2	1	1	2	1	1	1	1	3	2	2	2	1	1	2	2	0	2	2	1	1	1.5
	1.5	Site water management plan or policy ideally backed by leadership commitment	2	3	3	3	3	3	3	3	3	3	3	1	1	2	2	3	1	2	3	3	3	2.5
	1.6	Stakeholder mapping	1	1	2	3	1	1	1	1	2	3	3	1	1	1	2	2	0	1	1	1	1	1.4
	1.7	Stakeholder engagement and collaboration / Collective Action	1	1	2	2	1	2	1	1	1	2	2	1	2	1	2	2	1	2	2	2	2	1.6
	1.8	Supply chain engagement	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	1	2	2	2	2	2	2.0
	2	Water Balance																						
	2.1	Consideration of farm Quantitative water use information	2	2	3	2	2	2	3	3	2	2	2	1	2	2	3	3	2	2	2	3	3	2.3
	2.2	Consideration of catchment Quantitative water use information	0	1	2	3	1	1	1	1	1	2	2	1	1	1	1	2	1	2	2	3	3	1.5
	2.3	Water use efficiency	2	2	3	2	3	3	3	3	3	2	2	2	2	2	2	2	3	2	2	3	3	2.4
	3	Water Quality Status																						
	3.1	Consideration of farm Qualitative water use information	2	3	3	3	3	3	3	3	2	3	3	2	2	2	2	2	2	2	3	2	2	2.5
	3.2	Consideration of catchment water quality information	1	2	2	2	1	2	1	2	1	1	2	1	1	1	1	1	0	1	2	2	2	1.4
	3.3	Water quality management: fertilizer, pesticides, soil management/ erosion, waste management	3	2	3	2	2	2	3	3	3	3	3	3	2	3	2	3	2	2	2	2	2	2.5
	4	Important Water Related Areas																						
	4.1	On-site good practices in biodiversity and ecosystems protection.	3	2	3	3	3	3	3	3	3	3	3	3	2	2	3	2	2	3	3	2	2	2.7
	4.2	Consideration of catchment Water-related Areas information	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	2	2	2	2	1.9
	4.3	Management of Riparian, Wetland and other Water-related Areas Off-site	3	1	1	1	2	2	2	2	2	1	1	2	2	2	1	2	2	2	2	2	2	1.8
	5	Water ans Sanitation for All - WASH																						
	5.1	WASH on-site	3	3	3	3	3	3	3	3	3	1	3	3	3	3	3	3	3	3	3	1	3	2.8
	5.3	Support Access to WASH off-site	1	1	1	2	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	1.2

		Rainforest alliance	GlobalGAP	GlobalGAP + SPRING Add On	AWS	SIZA	GlobalGAP + SIZA	FSA by SAI platform	GlobalGAP + FSA Add-On	Sustainably Grown	On the way to Planet Proof	On the way to Planet Proof + GlobalGAP	Fairtrade (Small Farmers)	Fairtrade (Hired Labor)	ISCC	Bio Suisse	Naturland	Demeter	Leaf Marque	Leaf Marque + GlobalGAP	CAAE	CAAE + GG	Averages
	Water relevance	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	3	3	
	Agricultural relevance	2	2	3	1	3	3	3	3	3	3	3	3	3	2	3	3	2	2	2	3	3	
1	Water Governance and Management	1.6	1.8	2.3	2.5	2.0	2.1	2.0	2.0	2.1	2.3	2.3	1.4	1.5	1.6	2.3	2.3	0.9	1.9	2.0	2.3	2.3	2.0
2	Water Balance	1.3	1.7	2.7	2.3	2.0	2.0	2.3	2.3	2.0	2.0	2.0	1.3	1.7	1.7	2.0	2.3	2.0	2.0	2.0	3.0	3.0	2.1
3	Water Quality Status	2.0	2.3	2.7	2.3	2.0	2.3	2.3	2.7	2.0	2.3	2.7	2.0	1.7	2.0	2.0	2.0	1.3	1.7	2.3	2.0	2.0	2.1
4	Important Water Related Areas	2.7	1.7	2.0	2.0	2.3	2.3	2.3	2.3	2.3	2.0	2.0	2.3	1.7	1.7	2.0	2.0	1.7	2.3	2.3	2.0	2.0	2.1
5	Water and Sanitation for All - WASH	2.0	2.0	2.0	2.5	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.5	2.5	2.0	2.5	2.0	2.0	2.0	2.0	1.0	2.0	2.0
	Standard scores on other variables																						
	Focus on Where - Information gathering	1.6	1.9	2.4	2.6	1.9	2.0	2.0	2.1	1.9	2.3	2.4	1.5	1.5	1.4	2.0	2.0	1.0	1.9	2.1	2.3	2.3	1.9
	Focus on How - Understanding and assessing inf	1.2	1.5	1.8	2.3	1.5	1.7	1.3	1.5	1.7	1.7	1.8	1.5	1.2	1.2	1.8	1.8	0.7	1.7	1.8	2.0	2.0	1.6
	Focus on What - Specific Actions	2.2	2.0	2.5	2.3	2.3	2.4	2.6	2.6	2.3	2.1	2.3	2.0	2.0	2.1	2.3	2.3	1.9	2.1	2.3	2.2	2.3	2.2
	Score on-site aspects	2.2	2.2	2.8	2.5	2.6	2.6	2.7	2.7	2.6	2.3	2.5	2.0	1.8	2.2	2.6	2.6	1.8	2.2	2.4	2.3	2.5	2.4
	Score off-site (catchment, stakeholders, etc...) asp	1.5	1.5	1.8	2.3	1.5	1.7	1.5	1.6	1.7	1.8	1.9	1.5	1.5	1.3	1.8	1.8	0.8	1.7	1.8	2.0	2.0	1.7

What's this? -> These scores aim at indicating how each standard focuses on requirements towards collecting information, understanding/assessing the information, and implement specific actions. The more balanced results of those 3 aspects, the more guided and informed will the actions be

Annex 2: Selection of critical aspects and key areas

Different criteria across the assessment framework were selected to identify and calculate averages as shown in the previous section. This annex aims at further explaining the logic behind the use of critical aspects and key areas to define the basket of standards, why are they considered relevant for water and agricultural supply chains, what are the criteria considered and how the average scores were calculated.

Critical aspects are those considered that should always be properly covered by any standard, with scores of 2 or 3. In this case, all standards score between 2 and 3 in critical aspects, which means there's general fulfilment of these criteria.

Table 5. - Critical aspects criteria that must score between 2 and 3 for all standards in the basket

1.1	Legal Compliance
2.1	Consideration of farm Quantitative water use information
2.3	Water use efficiency
3.1	Consideration of farm Qualitative water use information
3.3	Water quality management: fertilizer, pesticides, soil management/ erosion, waste management

When standards are analyzed in how they cover the 4 key areas (catchment, ecosystems, stakeholders, and WASH), they received a score from the average of different criteria related.

The first key area is the focus on Catchments. It was selected for the following reasons:

- Economic activities and water use take place in catchments. The catchment is the hydrological unit to look at when it comes to solving key water issues and shared water challenges.
- Catchment-related aspects are contemplated across the different criteria. Mapping and understanding the catchment and water risks, identification of stakeholders, and specific requirements to consider water aspects beyond the farm.
- Natural evolution of agricultural standards is moving towards the catchment. Therefore, it is considered as a key, transversal aspect to consider and include in certification schemes.
- Significant differences are found within standards on how they cover catchment-related aspects. Some just reference it, others include indirect requirements and others include specific requirements to consider catchment-related aspects.

Table 6. - Standard scores for "Catchment" key area.

	CATCHMENT FOCUS	Rainforest alliance	GlobalGAP	GlobalGAP + SPRING	AWS	SIZA	GlobalGAP + SIZA	FSA by SAI platform	GlobalGAP + FSA Add On	Sustainably Grown	On the way to Planet Proof	On the way to Planet Proof + GlobalGAP	Fairtrade (Small Farmers)	Fairtrade (Hired Labor)	ISCC	Bio Suisse	Naturland	Demeter	Leaf Marque	Leaf Marque + GlobalGAP	CAAE	CAAE + GG	AVERAGES
1	1. Water Governance and Management																						
1.2	Water context: Consideration of catchment - water related aspects	2	2	2	3	2	2	2	2	2	2	2	1	2	1	2	2	0	2	2	3	3	1.9
1.3	Water risk: Consideration of catchment impacts	1	2	3	3	3	3	2	2	2	2	2	1	1	2	3	3	1	2	2	3	3	2.2
1.4	Future Scenario & Resilience Planning	2	1	1	2	1	1	1	1	3	2	2	2	1	1	2	2	0	2	2	1	1	1.5
1.6	Stakeholder mapping	1	1	2	3	1	1	1	1	2	3	3	1	1	1	2	2	0	1	1	1	1	1.5
1.7	Stakeholder engagement and collaboration / Collective Action	1	1	2	2	1	2	1	1	1	2	2	1	2	1	2	2	1	2	2	2	2	1.6
2	Water Balance																						
2.2	Consideration of catchment Quantitative water use information	0	1	2	3	1	1	1	1	1	2	2	1	1	1	1	2	1	2	2	3	3	1.5
3	Water Quality Status																						
3.2	Consideration of catchment water quality information	1	2	2	2	1	2	1	2	1	1	2	1	1	1	1	1	0	1	2	2	2	1.4
4	Important Water Related Areas																						
4.2	Consideration of catchment Water-related Areas information	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	2	2	2	2	1.9
4.3	Management of Riparian, Wetland and other Water-related Areas Off-site	3	1	1	1	2	2	2	2	2	1	1	2	2	2	1	2	2	2	2	2	2	1.8
5	Water and Sanitation for All - WASH																						
5.3	Support Access to WASH off-site	1	1	1	2	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	1.2
	Average	1.4	1.4	1.8	2.3	1.5	1.7	1.4	1.5	1.7	1.8	1.9	1.4	1.4	1.2	1.8	1.9	0.7	1.7	1.8	2.0	2.0	1.6

The second key area is "*Ecosystems"* and it was selected for the following reasons:

- Damage to ecosystems may happen in different ways due to agricultural activity (water over-abstraction, deforestation, agri-chemicals...)
- Water depends on ecosystems health. Keeping ecosystems healthy provide services that benefit water users. Protect forests, "water towers" or biodiversity hotspots provide benefits to water quantity and quality. Protected areas damage or violating environmental flows may also originate regulation and reputational risks.
- On-farm practices in water use efficiency or quality management may indirectly influence off-farm ecosystems, and both on-site and off-site ecosystem management, linked to catchment and stakeholders' collective action, have a direct influence.
- Some standards address ecosystem-related criteria in a direct and specific way, others rather indirectly.

Table 7. - Standard scores for "Ecosystems" key area.

	ECOSYSTEMS FOCUS	Rainforest alliance	GlobalGAP	GlobalGAP + SPRING	AWS	SIZA	GlobalGAP + SIZA	FSA by SAI platform	GlobalGAP + FSA Add-On	Sustainably Grown	On the way to Planet Proof	On the way to Planet Proof +	Fairtrade (Small Farmers)	Fairtrade (Hired Labor)	ISCC	Bio Suisse	Naturland	Demeter	Leaf Marque	Leaf Marque + GlobalGAP	CAAE	CAAE + GG	AVERAGES
1	1. Water Governance and Management																						
1.7	Stakeholder engagement and collaboration / Collective Action	1	1	2	2	1	2	1	1	1	2	2	1	2	1	2	2	1	2	2	2	2	1.6
2	Water Balance																						
2.3	Water use efficiency	2	2	3	2	3	3	3	3	3	2	2	2	2	2	2	2	3	2	2	3	3	2.4
3	Water Quality Status																						
3.3	Water quality management: fertilizer, pesticides, soil management/ erosion, waste management	3	2	3	2	2	2	3	3	3	3	3	3	2	3	3	3	2	2	2	2	2	2.6
	Average of ecosystem indirectly-related criteria	2.0	1.7	2.7	2.0	2.0	2.3	2.3	2.3	2.3	2.3	2.3	2.0	2.0	2.0	2.3	2.3	2.0	2.0	2.0	2.3	2.3	2.2
4	Important Water Related Areas																						
4.1	On-site good practices in biodiversity and ecosystems protection.	3	2	3	3	3	3	3	3	3	3	3	3	2	2	3	2	2	3	3	2	2	2.7
4.2	Consideration of catchment Water-related Areas information	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2	2	1	2	2	2	2	1.9
4.3	Management of Riparian, Wetland and other Water-related Areas Off-site	3	1	1	1	2	2	2	2	2	1	1	2	2	2	1	2	2	2	2	2	2	1.8
	Average of ecosystem directly and indirectly-related criteria	2.5	1.7	2.2	2.0	2.3	2.3	2.3	2.3	2.3	2.1	2.1	2.3	1.8	1.8	2.1	2.1	1.8	2.3	2.3	2.1	2.1	2.1

The third key area is "*Stakeholders*" and it was selected for the next reasons:

- Collaboration is at the core of the principle of Water Stewardship. Water risks are shared, and the only way to efficiently address common risks is through collective and coordinated action.
- Knowing who else is in the area, who are the main water users, authorities, NGO, basin authorities and administrations, is the first step to foster collaboration and collective action.
- Stakeholder engagement and collective action mechanisms are a way to manage and reduce water risks and shared challenges.
- Stakeholder identification or engagement is present or referenced in some standards. Others include specific ecosystem-related aspects, but the link to stakeholders and the catchment is not so evident.

Table 8. - Standard scores for "Stakeholders" key area.

	STAKEHOLDERS FOCUS	Rainforest alliance	GlobalGAP	GlobalGAP + SPRING	AWS	SIZA	GlobalGAP + SIZA	FSA by SAI platform	GlobalGAP + FSA Add-On	Sustainably Grown	On the way to Planet Proof	On the way to Planet Proof +	Fairtrade (Small Farmers)	Fairtrade (Hired Labor)	ISCC	Bio Suisse	Naturland	Demeter	Leaf Marque	Leaf Marque + GlobalGAP	CAAE	CAAE + GG	AVERAGES
1	1. Water Governance and Management																						
1.6	Stakeholder mapping	1	1	2	3	1	1	1	1	2	3	3	1	1	1	2	2	0	1	1	1	1	1.5
1.7	Stakeholder engagement and collaboration / Collective Action	1	1	2	2	1	2	1	1	1	2	2	1	2	1	2	2	1	2	2	2	2	1.6
1.8	Supply chain engagement	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	1	2	2	2	2	2	2.1
4	Important Water Related Areas																						
4.3	Management of Riparian, Wetland and other Water-related Areas Off-site	3	1	1	1	2	2	2	2	2	1	1	2	2	2	1	2	2	2	2	2	2	1.8
5	Water ans Sanitation for All - WASH																						
5.3	Support Access to WASH off-site	1	1	1	2	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	1.2
	Average	1.6	1.2	1.6	2.0	1.4	1.6	1.6	1.6	1.6	1.8	1.8	1.6	1.8	1.4	1.8	1.6	1.2	1.6	1.6	1.6	1.6	1.6

The fourth key area is the focus in "WASH" and it was selected for the next reasons:

- Access to drinking water, sanitation and hygiene is an aspect with increasing weight in agricultural standards.
- Many standard systems address WASH on-site, and promoting activities to facilitate WASH off-site are increasingly present, as a way to cover water-related risks, and address socio-economic aspects related to water.
- WASH is well covered by all standards in general terms. The difference lies in the off-site side. For example, avoiding pollution of water bodies which are also used for drinking or facilitate access to WASH for workers' families or local communities are activities that are linked to stakeholder engagement, reputation or water quality protection.

Table 9. - Standard scores for "Wash" key area.

	WASH FOCUS	Rainforest alliance	GlobalGAP	GlobalGAP + SPRING	AWS	SIZA	GlobalGAP + SIZA	FSA by SAI platform	GlobalGAP + FSA Add-On	Sustainably Grown	On the way to Planet Proof	On the way to Planet Proof + GlobalGAP	Fairtrade (Small Farmers)	Fairtrade (Hired Labor)	ISCC	Bio Suisse	Naturland	Demeter	Leaf Marque	Leaf Marque + GlobalGAP	CAAE	CAAE + GG	AVERAGES
5	Water ans Sanitation for All - WASH																						
5.1	WASH on-site	3	3	3	3	3	3	3	3	3	1	3	3	3	3	3	3	3	3	3	1	3	2.8
5.3	Support Access to WASH off-site	1	1	1	2	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	1	1	1.2
		2.0	2.0	2.0	2.5	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.5	2.5	2.0	2.5	2.0	2.0	2.0	2.0	1.0	2.0	2.0