

Navigating and selecting voluntary sustainability standards to compete internationally in food exports

Valeska V. Geldres-Weiss, Nathaniel P. Massa, Carolina Nicolas, Julian Dingli

Abstract

With food insecurity an incessant mounting concern, and the present food crisis wrought by current geo-political instability and Russia's invasion of Ukraine; the export of food from South America to Europe is increasingly a strategic axis for the development of international business. Within this context, sustainability and environmental considerations are another fundamental criterion in accessing and competing in international markets. Presently, myriad different standards exist in the context of international business, at both regulatory and voluntary levels. This paper focus on voluntary sustainability standards, which while not required by law, might increasingly be requested, or actively sought by manufacturers, retailers or consumers. The question is how might exporters decide and navigate between multiple voluntary sustainability standards when they want to open a new export market. We propose a method to facilitate selection of the most appropriate standard for a specific product targeting a specific export market, based on information provided by the International Trade Centre through its Standard Map tool. We use as an illustrative example oats exported by Chilean producers, which have export potential in different European Union countries. Our method identifies 10 sustainability standards from a total of 321, which are adjusted for oats products for human consumption from Chile.

Keywords: sustainability, Voluntary Sustainability Standards, International Business, export, food, Chile

1. Introduction

With the food crisis and Russia's invasion of Ukraine, the export of food from South America to Europe is becoming a strategic axis for the development of international business. In this context an important and increasingly fundamental criterion to compete in international markets is sustainability. However, myriad different sustainability standards exist today in the context of international business – at both regulatory and voluntary levels – adding to the complexity and prospects for market success in export initiatives. This paper focuses on Voluntary Sustainability Standards (VSS), which although currently not required by law, are nonetheless being increasingly requested, recommended or actively sought manufacturers, retailers or demanding consumers.

The recent proliferation of several competing and overlapping global sustainability standards is highlighted by Montiel et al. (2019). Within this context, the question is: How might exporters decide on which VSS' to adopt from among numerous alternatives when they want to target a new export market?

We propose a method for selecting the most appropriate sustainability standards for a specific product for a specific target market, based on information provided by the International Trade Centre (ITC) through their Standard Map tool. According to the ITC, there are more than 300 varied VSS certifying different environmental, social, ethical and quality characteristics for export products. Faced with such an extent of potentially relevant options, it becomes a complex matter for exporters to know and differentiate among the multitude of various voluntary standards to which they could adhere, depending on their product, when seeking new international markets.

As an illustrative example we use oat products exported by Chilean producers; products which have evident export potential in different countries in the European Union (EU). Our method identifies 10 VSS from a total of 321 indicated by the ITC, which are adjusted for oats for human consumption from Chile.

2. Export potential of Chilean oats and oat products to the EU

The Export Potential Map (ITC, 2022a) identifies the export potential as well as the untapped potential remaining for a specific good or product to a destination market (see definitions in Annex 1). In this case of oat products, two Harmonized System codes are indicated, namely: 110412 *Rolled or flaked grains of oats*, and code 110422 *Worked oat grains (excluding rolled, flaked, pellets & flour)*. The applied tariff for each of these export products is 9.2% and 19% respectively. We identify the export potential and the untapped potential remaining for exporters from Chile for each of the two product codes in the sub-region of the EU & West Europe. The results can be seen in Tables 1 and 2 below. In all selected countries, except for Germany, for the 110412 *Rolled or flaked grains of oats* imports, export potential is the same as the untapped potential remaining – since actual exports to those countries are zero.

Table 1. Chile exporters' export potential for product 110412 *Rolled or flaked grains of oats*

EU / European Destination Country	Export potential / Untapped potential remaining	110412 Rolled or flaked grains of oats imports	Total trade in goods with Chile
France	\$609 k	\$27 mn	\$1 bn
Spain	\$472 k	\$12 mn	\$1.5 bn
Germany	331 k / \$328 k *	\$20 mn	\$1.2 bn
United Kingdom	\$225 k	\$14 mn	\$696 mn
Italy	\$216 k	\$9.3 mn	\$761 mn
Denmark	\$153 k	\$8.5 mn	\$146 mn
Netherlands	\$122 k	\$21 mn	\$1.3 bn
Poland	\$110 k	\$16 mn	\$118 mn
Czechia	\$96 k	\$8.9 mn	\$26 mn
Greece	\$75 k	\$4.1 mn	\$49 mn

*Actual exports = \$2.9 k. Source: Export potential map. Source: ITC Export potential map (accessed on 24 October, 2022)

Table 2. Chile exporters' export potential for product 110422 *Worked oat grains (excluding rolled, flaked, pellets & flour imports)*

EU / European Destination Country	Export potential = Untapped potential remaining	110422 Worked oat grains, excl rolled, flaked, pellets & flour imports	Total trade in goods with Chile
France	\$609 k	\$27 mn	\$1 bn
Spain	\$216 k	\$1.4 mn	\$1.5 bn
Italy	\$184 k	\$1.3 mn	\$761 mn
Germany	\$122 k	\$1.4 mn	\$1.2 bn
Netherlands	\$112 k	\$3.4 mn	\$1.3 bn
Portugal	\$66 k	\$432 k	\$48 mn

Source: ITC Export potential map (accessed on 24 October, 2022)

ITC data clearly indicates that Chile has an opportunity and export potential for its oat products in targeting these countries. This presents the pertinent question on how to go about accessing these markets – and in seeking to do so, an actual important requirement is the consideration of environmental impact and the sustainability of the products concerned. Furthermore, the EU market is comparatively increasingly cognisant of sustainability considerations, driven forward by both policy initiatives as well as consumer demand and market expectations.

3. Literature review

Lambin & Thorlakson (2018) underline a rise of VSS initiatives seeking and attempting to manage the social and environmental impacts of global supply chains. As defined by the ITC (2022b) VSS are rules, guidelines, characteristics, requirements and specifications about products or processes typically developed by the private sector and civil society, that address issues not covered by mandatory standards or consider additional requirements to them. They are voluntary by nature, therefore not legally required, but may be required by private buyers. They also serve to provide access to high value markets, and act as market differentiators, also contributing positively to the Sustainable Development Goals (SDGs) – such as those established by the United Nations' global General Assembly. VSS establish global rules for firms' environmental and/or social conduct and allow for verification of firm compliance via third party certification – holding to account evidence of firms' governance and sustainability conduct in a globalised world economy (Montiel et al., 2019).

In parallel, Christmann & Taylor (2002) observe international voluntary environmental initiatives are emerging as an important tool for corporate environmental self-regulation in the global economy, growing from a handful to hundreds. VSS and certification schemes are expanding in a variety of economic sectors, and there exists a relatively uncoordinated coexistence of multiple competing schemes – which has created a very fragmented governance system (Derkx & Glasbergen, 2014). Furthermore, according to Montiel et al. (2019) the recent proliferation of competing and overlapping global sustainability standards

that have been developed by various stakeholders with different agendas, creates uncertainties for firms – likely reduce their propensity to adopt any standard.

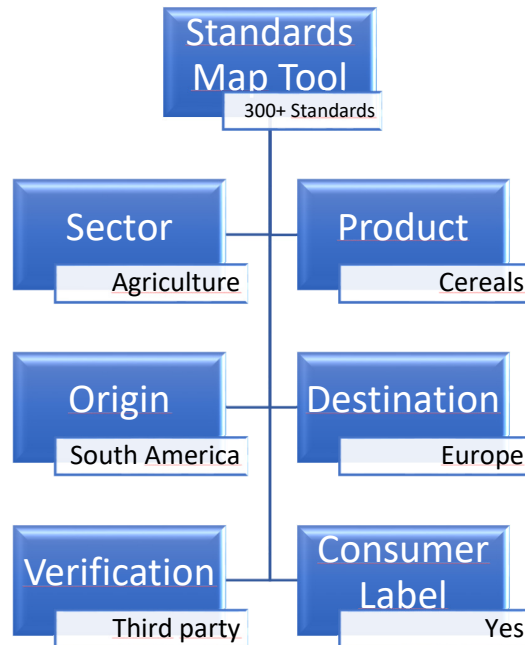
In Europe, Hammoudi et al. (2009) state that in recent years there has been an increased focus on food safety and changes in public regulations have been accompanied by an increased use of private standards.

On the other hand, from the side of developing countries, the Framework For The Voluntary Sustainability Standards Assessment Toolkit published for the UN Conference on Trade & Development (UNCTD2020), highlights that for these countries the investment required and complexity to implement VSS, may handicap the ecosystem by excluding smallholder farmers from participation in sustainable global value chains. The above highlights the need to generate information to support companies from developing countries to navigate and select VSS to compete internationally in food exports. For Producers having the capacity to join the increasing number of VSS has become a necessary step to access more profitable global markets (UNFSS, 2022).

4. Method

The ITC Standard Map tool (ITC, 2022c) was used to identify voluntary standards that could potentially be applicable to oats for human consumption – in this case exported from Chile and destined for the European Union (EU). The Standard Map (<https://www.standardsmap.org/>) compiles and categorises an extensive database of sustainability standards. To carry out our analysis and categorisation of the standards in alignment with our research objectives, the following criteria were defined as relevant (see Figure 1).

Figure 1. Method to select relevant product-specific voluntary standards for an export market or region



The Standard Map includes the following variables for the classification of voluntary standards (see Table 3).

Table 3: Criteria used for the voluntary standard classification

Variable	Definition	Criteria used
Sector	Identifies standards that operate in specific sectors	Standards associated with the “agriculture” sector were included
Product	Identifies standards that certify or verify specific products	In the case of oats, standards associated with the product "cereals" were included.
Origin	Identify standards operating in specific producing or processing countries / regions	In this case, those whose origin is "South America" were included.
Destination	Identifies standards whose products or services are retailed in specific countries or regions.	In this case, those whose destination is the “European Union” were included.
Verification	Identifies standards that require independent third-party verification.	In this case, only standards that require third-party verification are included.
Consumer Label	Identifies standards with consumer-facing labels	In relation to this criterion, only standards that include consumer-oriented labeling were included.

Additionally, the following available segmentation criteria were not modified, in order to include all the respectively associated standards and their options in the final result:

Value Chain: Identifies standards that cover specific steps of the supply chain. In this case, standards associated indistinctly with the 4 variables of the value chain were included: “Production”, “Manufacture” “Distribution” and “Consumption”.

Sustainable Development Goals: Identifies standards that contribute to the Sustainable Development Goals (SDGs) of the EU. Standards associated with the objectives "No poverty", "Zero hunger" and "Health and well-being" are considered.

Typology: Identifies standards that are being operated by specific types of entities. “Public Entities”, “Private Entities” and “International” standards are considered.

Objective: Identifies standards with specific purposes and mandates. In relation to the objectives of the standards, those related to “Accreditation”, “Verification/Accreditation”, “Comparative evaluation” and “Best practices and guidelines” are considered.

Corporate recognition and evaluation: Identifies standards recognized by specific organizations or corporate evaluation initiative. In this aspect, the following 4 initiatives are considered: “ISEAL” (International Social and Environmental Accreditation and Labeling), “CGF SSCI” (The Sustainable Supply Chain Initiative), “FEFAC” (European Feed Manufacturers' Federation) and “GSSI” (Global Sustainable Seafood Initiative).

5. Results

Based on the adopted methodology and criteria, 13 voluntary standards were obtained for the case of oats. Of these, only those within region of South America and having Chile as the source of origin, with destination to Europe were selected (this can be reviewed by clicking on the specific profile of each of the standards). With this, the total number of standards that meet all the requirements is 10. The identified standards were classified into 3 pillars “Environment”, “Social” and “Quality” and 19 sub-categories provided by the ITC tool, the identified standards can see in Table 4.

Table 4. Voluntary sustainability standards for cereals




PILAR	SUB-PILLAR	Organic Agriculture - European Union	GLOBALG.A.P. Risk Assessment on Social Practice (GRASP)	IFS Food	ISCC EU	ISCC Plus	ISCC PLUS - Voluntary Add-ons	PrimusGFS	Rainforest Alliance - 2020	Safe Quality Food Program	Social Accountability International - SA8000
Environment	Animals	✓							✓		
	Biodiversity	✓			✓	✓	✓	✓	✓		
	Climate	✓			✓	✓	✓		✓		
	Energy	✓			✓	✓	✓		✓		
	Forest	✓			✓	✓	✓		✓		
	Input	✓		✓	✓	✓	✓	✓	✓	✓	
	Soil	✓			✓	✓	✓	✓	✓		
	Water	✓		✓	✓	✓	✓	✓	✓		✓
Quality	Food / Feed management systems	✓		✓	✓	✓	✓	✓	✓	✓	
	Manufactured products quality technical and environmental specifications				✓	✓	✓				
	Product / service quality management	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Social	Economic Viability			✓	✓	✓	✓		✓		✓
	Ethics	✓		✓	✓	✓	✓	✓	✓	✓	✓
	Human Rights		✓	✓	✓	✓	✓		✓		✓
	Labour Rights		✓	✓	✓	✓	✓	✓	✓		✓
	Local communities		✓	✓	✓	✓	✓		✓		✓
	Supply Chain Responsibilities	✓		✓	✓	✓	✓	✓	✓	✓	✓
	Sustainability Management	✓		✓	✓	✓	✓	✓	✓	✓	✓

The resultant voluntary standards are as follows:

- Organic Agriculture - European Union
- GLOBALG.A.P. Risk Assessment on Social Practice (GRASP)
- IFS Food (International Featured Standards)
- ISCC EU (international sustainability and carbon certification)
- ISCC Plus (international sustainability and carbon certification)
- ISCC PLUS - Voluntary Add-ons (international sustainability and carbon certification)
- PrimusGFS (Global Food Safety Initiative)
- Rainforest Alliance – 2020
- Safe Quality Food Program
- Social Accountability International - SA8000

For each voluntary standard, we identified the main areas of compliance assessment that are checked in each case (see Table 5)

Table 5. VSS compliance assessment

VSS	Logo	Production	Performance	Sampling	Unannounced Audits	Complaints and appeal	Group Certification	Product testing	Audit Frequency
Organic Agriculture – European Union		Yes	No	No	Allowed	Yes	Yes	Yes	1year or less
GLOBALG.A.P. Risk Assessment on Social Practice (GRASP)		Yes	No	No	Required	Yes publicly available	Yes	Yes	1year or less
IFS Food		Yes	Yes	No	Allowed	Yes publicly available	Yes	No	information not available
ISCC EU		Yes	Yes	Yes	Allowed	Yes publicly available	Yes	No	1year or less
ISCC Plus		Yes	Yes	Yes	Allowed	Yes publicly available	Yes	No	1year or less
ISCC PLUS - Voluntary Add-ons		Yes	Yes	Yes	Allowed	Yes publicly available	Yes	No	1year or less
PrimusGFS		Yes	No	Yes	Allowed	Yes available on request	No	Yes	1year or less
Rainforest Alliance - 2020		Yes	Yes	Yes	Allowed	Yes publicly available	Yes	information not available	1year or less
Safe Quality Food Program		Yes	No	No	Allowed	Yes publicly available	Yes	Yes	1year or less
Social Accountability International - SA8000		Yes	No	Yes	Required	Yes publicly available	Yes	No	1year or less

6. Conclusions

This paper illustrates the practical use of international tools provided the International Trade Centre (ITC), in considering, analysing and facilitating VSS decisions for the purposes of targeting export markets in the case of specific products with export potential originating from a named country of origin. Our proposed paper provides advice to exporters on points to consider when making decisions regarding which VSS to focus on if they wish to enter a certain market – enhancing the prospects for positive market reception and consumer perception in an increasingly sustainability-conscious reality. Using this method we identify 10 sustainability standards from a total of 321; which in our case are adjusted for oats for human consumption originating from Chile. A second step for further research, not presently included in this proposal – and which is currently at the development stage – is how the exporter might decide which of them to adopt, ‘bet on’ and invest in, in order to enhance the potential of its export offer to this market.

References

- Christmann, P., & Taylor, G. (2002). Globalization and the environment: Strategies for international voluntary environmental initiatives. *Academy of Management Perspectives*, 16(3), 121-135.
- Derks, B., & Glasbergen, P. (2014). Elaborating global private meta-governance: An inventory in the realm of voluntary sustainability standards. *Global Environmental Change*, 27, 41-50.

Fiorini, M., Hoekman, B., Jansen, M., Schleifer, P., Solleder, O., Taimasova, R., & Wozniak, J. (2019). Institutional design of voluntary sustainability standards systems: Evidence from a new database. *Development Policy Review*, 37, O193-O212.

Hammoudi, A., Hoffmann, R., & Surry, Y. (2009). Food safety standards and agri-food supply chains: an introductory overview. *European Review of Agricultural Economics*, 36(4), 469-478.

ITC (2022a). Export Potential Map. Available online: <https://exportpotential.intracen.org/en/products/tree-map?fromMarker=w&exporter=w&toMarker=w&market=w&whatMarker=k> (accessed on 24 October, 2022).

ITC (2022b). Voluntary Standards. Available online: https://sustainabilitymap.org/learning_modules/EN/L2/story_html5.html. (accessed on 8 May, 2022).

ITC (2022c). Standar Map. Available online: <https://standardsmap.org/en/identify> (accessed on 24 October, 2022).

Lambin, E. F., & Thorlakson, T. (2018). Sustainability standards: Interactions between private actors, civil society, and governments. *Annual Review of Environment and Resources*, 43(1), 369-393.

Montiel, I., Christmann, P., & Zink, T. (2019). The effect of sustainability standard uncertainty on certification decisions of firms in emerging economies. *Journal of Business Ethics*, 154(3), 667-681.

UNCTD (2020). Framework for the Voluntary Sustainability Standards (VSS) Assessment Toolkit. Available online: https://unctad.org/system/files/official-document/ditctabinf2020d5_en.pdf (accessed on 27 October, 2022).

UNFSS (2022) What Are Voluntary Sustainability Standards (VSS)? Available online: <https://unfss.org/home/about-unfss/> (accessed on 27 October, 2022).

Annex 1

Definitions by the Export potential map

Export potential indicator: Potential export value of product k supplied by country i to market j , in dollars, is calculated as supply \times demand (corrected for market access) \times bilateral ease of trade. Supply and demand are projected into the future based on GDP and population forecasts, demand elasticities and forward-looking tariffs. The estimated dollar value serves as a benchmark for comparison with actual exports and should not be interpreted as a ceiling value. In reality, the actual trade value may be below or above the potential value.

Tapped potential: This value captures the extent to which the export potential has already been utilized for this product, market or supplier. At the most disaggregated level, by country, product and market, the tapped potential corresponds to the potential to actual exports gap (in % terms) whenever potential > actual exports and to 100% whenever potential < actual exports. At the aggregate level (e.g. export potential in a regional market or by sector), the tapped potential may be below 100% even though aggregated actual exports exceed potential exports. This occurs when individual exporter-product-market combinations still hold underutilized potential that should not be masked by the fact that others have exceeded their potential.