Healthy Beverage Initiative



Implementation of a Healthy Beverage Initiative Designation at UBC

PREPARED BY: Balanding Manneh, UBC Sustainability Scholar, 2020

PREPARED FOR: Melissa Baker, Manager, Nutrition and Wellbeing, UBC Vancouver Gabriella Scali, Content and Engagement Strategist, UBC Wellbeing Julie Stachiw, Manager, Nutrition and Wellbeing, UBC Okanagan

August 2020

DISCLAIMER

This report was produced as part of the UBC Sustainability Scholars Program, a partnership between the University of British Columbia and various local governments and organizations in support of providing graduate students with opportunities to do applied research on projects that advance sustainability across the region.

The project was conducted under the mentorship of UBC Wellbeing staff. The opinions and recommendations in this report and any errors are those of the author and do not necessarily reflect the views of UBC Wellbeing or the University of British Columbia

ACKNOWLEDGMENTS

The author would like to thank the following individuals for their contribution, feedback, and support throughout this project. Melissa Baker, Manager, Nutrition and Wellbeing, UBC Vancouver

Gabriella Scali, Content and Engagement Strategist, UBC Wellbeing

Julie Stachiw, Manager, Nutrition and Wellbeing, UBC Okanagan

Special thanks to all stakeholders that were consulted for their time and contribution.

TABLE OF CONTENTS

1.0. INTRODUCTION	5
1.1. Sugar-sweetened beverages	5
1.2. Consumption of SSBs and non-communicable diseases	6
1.3. UBC Healthy Beverage Initiative	
1.4. Business and economic case for healthy beverages	7
1.5. Nudge theory and long-term behavior change	8
1.6. Project objectives	8
2.0. CERTIFICATIONS, VOLUNTARY STANDARDS & ECOLABELS	9
2.1. Benefits of certifications, voluntary standards, and ecolabels	9
2.2. Challenges and limitations of certifications, voluntary standards, and ecolabels	
3.0. METHODOLOGY	
3.1. Literature review of certifications with a focus on the food & beverage industry	
3.2 Stakeholder engagement strategy	10
4.0. SUMMARY OF FINDINGS	
4.1. Literature Review: certifications and voluntary standards	
4.1.1. Primary reasons for certification programs and voluntary standards	
4.1.2. Trends in certification programs and voluntary standards	
4.1.3. Core elements of successful certification programs and voluntary standards	
4.1.4. Certification programs and voluntary standards in beverages industry	
4.2. Stakeholder Engagement	
4.2.1. Key findings from stakeholder consultations	14
5.0. CASE STUDIES AND BEST PRACTICES	16
5.1. Fairtrade Certification	16
5.2. Rainforest Alliance Certification	18
5.3. Ocean Wise Seafood Program	20
5.4. Certification programs in university campus settings	21
5.4.1. University of California, Berkeley	22
5.4.2. Portland State University	23
5.4.3. University of California, Davis	
5.4.4. Columbia University	
5.5. Summary of case studies and best practices	25
6.0. RECOMMENDATION	25
7.0. REFERENCES	27
8.0. APPENDICES	

LIST OF FIGURES

Figure 1: A color-coded system of beverage classification	5
Figure 2: Depiction of nudge theory	8
Figure 3: Fairtrade logo	16
Figure 4: Rainforest Alliance logo	18
Figure 5: Ocean Wise logo	20
Figure 6: UC Berkeley's Healthy Department Certification logo	22
Figure 7: Portland State University's Healthy Food Vendor Certification logo	23
Figure 8: Portland State University's Healthy Department Certification logo	23
Figure 9: The three levels of PSU's Healthy Department Certification program	24

LIST OF TABLES

Table 2: Examples of Fairtrade brands and businesses in BC 10
Table 3: Elements, challenges, and limitations of Fairtrade's success
Table 4: Examples of Rainforest Alliance members in Canada 13
Table 5: Elements, challenges, and limitations of Rainforest Alliance's success
Table 6: Examples of Ocean Wise partner brands and businesses in BC BC
Table 7: Elements, challenges, and limitations of Ocean Wise's success
Table 8: UC Berkeley's Healthy Department Certification application process 2:

1.0. INTRODUCTION

1.1. Sugar-sweetened beverages

The global effort to tackle obesity and other non-communicable diseases (NCDs) has brought the discussion on the consumption of sugar-sweetened beverages (SSBs) to the forefront of public health discourse (Momin et al., 2020). SSBs are defined as cold and hot drinks with added sugar in them, they are a leading source of added sugars in diets (CDC, 2017). Common SSBs include non-diet soft drinks, energy drinks, fruit punches, and sweetened tea and coffee. Although SSBs are high in calories, they provide very little nutritional value (Murray et al., 2015; Huth et al., 2013). In fact, the WHO guideline recommends that adults and children reduce their daily intake of free sugars (added and naturally occurring) to less than 10% of their total energy intake (WHO, 2016).

Beverages are generally classified into three categories using a color-coded system of classification (see Figure 1). The system provides a visual representation for differentiating beverages that should be consumed often versus those that should be consumed occasionally or rarely (Day, 2017). The green beverages are considered the healthiest, followed by yellow beverages. Red beverages are considered unhealthy and if consumed too often, or in large amounts, they can lead to weight gain and chronic diseases (Day, 2017; Healthy Eating Advisory Service, 2020; Harvard School of Public Health, 2016). The figure below shows the classification of beverages. Please note that it is not a comprehensive list of all the beverages that can fit in each category.

Green Beverages: Choose/consume often	• Water (clean and safe drinking water)	Tea & Coffee (Hot & Cold) • Tea** (unsweetened) • Coffee** (unsweetened)	 Plain Milk & Alternatives Plain milk Unsweetened plant-based milk alternatives
Yellow	Lightly Sweetened Beverages	Non-Calorically Sweetened Beverages***	Sugary with Naturally Occurring Nutrients
Beverages: Choose/consume sometimes	 8g of sugar or less per portion size sold 	 Zero calorie soda Non-calorically sweetened fortified water Diet iced tea 	 100% fruit/vegetable juice Chocolate milk
Ded Deverages	Sugar-Sweetene	d (SSB's) without Naturally	Occurring Nutrients
Red Beverages: Choose/consume rarely	 Soft drinks Fruit drinks (< 100% free Energy drinks Calorically sweetened for (eg, Vitamin Water) 	Sports drinks**** ed fortified water	

Figure 1: A color-coded system of beverage classification

*Bottled water is only recommended if potable tap water is not available

**Made to order drinks can have added sugar

Based on evidence of potential harm regardless of sugar content, the sale of diet energy drinks is not encouraged *Sports drinks may be beneficial for athletes in certain situations

1.2. Consumption of SSBs and non-communicable diseases

The affordability and aggressive youth-targeted marketing of SSBs have resulted in increased consumption of these beverages (Roh and Schuldt, 2014; Ferretti and Mariani, 2019). A study by Forde et al. (2019) showed that while the strength of the association varied by the type of promotion exposure (digital versus traditional promotions) a positive association existed between self-reported exposure to SSB promotions and consumption among adults in the UK, Mexico, Australia, Canada, and the USA. Increasingly, SSB producers are spending considerable amounts of resources on marketing, for example, Coca-Cola spent US\$3.96 billion on worldwide advertising in 2017 (Forde et al., 2019). In addition to targeted marketing, affordability is also considered a major driver of purchasing behavior and is significantly associated with the prevalence of both overweight and obesity (Ferretti and Mariani, 2019). Although relatively affordable and readily available, studies have shown that SSBs contribute very little to the body's overall nutritional need (Vanderlee et al., 2014), and their consumption is linked to increased risk of diseases such as diabetes, obesity, cardiovascular diseases, and cancer (Schulze, 2004; Malik et al., 2010; Singh et al., 2015). Globally, an estimated 184,000 deaths are associated with the consumption of SSBs every year (Singh et al., 2015). Although a recent study of the trends of NCDs showed that the highest risks of death from NCDs were observed in low and middle-income countries (Bennett et al., 2018), NCDs continue to rank as the leading causes of death in Canada (Statistics Canada, 2020), thus, the need for effective public health measures to tackle SSB- related morbidity and mortality.

1.3. UBC Healthy Beverage Initiative

The increased availability and consumption of SSBs at institutions of learning such as colleges and universities has prompted some institutions to put measures in place to help reduce the consumption of SSBs on their campuses (Murray et al., 2015; Vanderlee et al., 2014). One such measure taken by universities including the University of British Columbia (UBC) is the implementation of a Healthy Beverage Initiative (HBI). The UBC HBI was implemented in an effort to gradually steer the UBC community away from the consumption of SSBs and promote the consumption of water and healthier beverages. (UBC Wellbeing, 2018). The initiative is part of UBC's commitment to the *Okanagan Charter: An International Charter for Health Promoting Colleges and Universities*. The priorities of the UBC HBI include encouraging water consumption by increasing access to safe drinking water; promoting healthier beverages choices; and modifying the environment to support the consumption of healthy beverages (UBC Wellbeing, 2018). So far, UBC HBI has piloted the removal of red beverages from select locations such as residence dining hall, and findings from the pilot suggested a low resistance from the UBC community to the removal of SSBs (Di Sebastiano et al., 2020 [Unpublished manuscript]).

1.4. Business and economic case for healthy beverages

Studies have been conducted both within and outside UBC on the impact of restricting sales or removing SSBs from vending machines, and food and beverage outlets. Among other things, these studies have shown that the demand for healthy beverages is increasing (Jones et al., 2019; Agriculture and Agri-Food Canada, 2019), that removing SSBs from vending machines will not affect sales (Boelsen et al., 2017; Pharis et al., 2017). The studies are summarized below.

îâî Şîşîş	The UBC community wants healthy beverages: Almost 90% of the respondents from a survey with 644 participants from the UBC community believe that food providers at UBC should increase the availability and marketing of healthier beverages (Kozicky, 2018).
\$	Removing SSBs from vending machines will not affect sales: Studies made on vending machines showed that decreased sales on sugar sweetened beverages do not result in a decrease on the revenue or total beverage sales (Boelsen et al.,2017; Pharis et al., 2017).
	Revenue from healthy beverage sales will increase if red beverages are removed : In a pilot study of three residence dining halls at UBC, where sugar-sweetened beverages were removed, the total revenue from healthier options purchases increased proportionally (Di Sebastiano, 2019).
Ø	Contribute to the university's long-term goal: UBC is working towards achieving a 50% reduction in sugar-sweetened beverage consumption on UBC campuses by the year 2025 (UBC Wellbeing, 2018). Food and beverage outlets will contribute to achieving this goal by increasing sales of healthy beverages.



Consumers are increasingly opting for healthier beverages: Healthy beverages have shown a steady growth from the period 2013 to 2017 and it is estimated that the trend will continue to increase in the period 2018 to 2022 (Jones et al., 2019; Agriculture and Agri-Food Canada, 2019)

1.5. Nudge theory and long-term behavior change

To gradually steer the UBC community away from SSBs, both subtle and drastic policy, environmental, and point of purchase measures might be necessary. Whether subtle or drastic, the measures should 'nudge' the UBC community into consuming healthier beverages. Nudging refers to the act of subtly leading people into making the 'right' decisions or selecting better options (e.g. choosing healthy beverages over SSBs) (Burt, 2019). It is known that people's choices can be influenced through indirect suggestions and positive reinforcements, without taking away their decision-



Figure 2: Depiction of Nudge Theory

making power (Burt, 2019). Therefore, gradually removing SSBs from campus vending machines, food and beverage outlets, and implementing physical and structural changes can all have a nudging effect on the UBC community and lead the community towards consuming healthier beverages (Hagmann et al., 2018). Lastly, the proposed implementation of an HBI designation program as part of the effort to reduce SSB consumption at UBC can also help to amplify the nudging effect on the university community.

1.6. Project Objectives

The objective of this project is to develop an implementation plan for an HBI designation program for food and beverage outlets and events on UBC campuses to help reduce the consumption of SSBs. The purpose of the designation is to recognize outlets and events on UBC campuses that are committed to increasing the availability, accessibility, and consumption of water and other healthy beverages. This report contains an overview of successfully implemented certification/ designation programs, key elements of successful programs, and recommendations to help guide and inform the implementation of the designation program

2.0. CERTIFICATIONS, VOLUNTARY STANDARDS & ECOLABELS

Certification refers to third-party attestations that a product, process, or service conforms to certain specified requirements (Ecolabel Index, n.d). The use of certifications is a common practice in many industries because of the increased demand for standard-compliant products (International Institute for Sustainable Development, 2018). In some developed countries, changes in legislation putting the liability for food poisoning on distributors and retailers prompted industry groups to design certification programs to ensure the safety and traceability of the products (FAO, 2008). Similarly, voluntary standards or voluntary sustainability standards (VSS) are rules that producers, traders, manufacturers, retailers, or service providers may be asked to follow so that the things they produce, make, grow, or sell do not hurt people or the environment (IISD, 2018) while ecolabels are used to identify products or services that have met a set of criteria for environmental sustainability. Certifications, VSS and ecolabels are often developed by business associations, environmental or social non-profit organizations, and their adoption is voluntary (Smith, 2019). There are over 400 of them being used across many different industries (Marx and Wouters, 2014; Ecolabel Index, n.d). Examples are listed in appendix 1.

2.1. Benefits of certifications, and voluntary standards and ecolabels

There are both monetary and nonmonetary benefits of certifications programs, voluntary standards, and ecolabels for the producers, consumers, and small businesses. These benefits can include price premiums, brand protection, access to financing, and new markets among others (Winters et al. 2015). For example, the Fairtrade certification increased household living standards by 30% and reduced the prevalence and depth of poverty in Uganda (Chiputwa et al., 2015). Additionally, they are an effective way of informing customers about the health and environmental impacts of the product they are buying or using (IISD, 2018), and also allows them to buy or use products that align with their ethical values.

2.2. Challenges and limitations of certifications, voluntary standards, and ecolabels

There are several challenges and limitations of certification programs, voluntary standards, and ecolabels. The use of false or exaggerated claims is common especially in the food and beverage industry with terms such as 'natural' and 'certified organic' being used fraudulently by some of the biggest multinational brands (Brownbill et al., 2020). Some businesses and companies, especially multinationals, have used self-certified labels or adhered to private initiatives, in order to exploit certification and ecolabelling as a marketing tool (Iraldo et al., 2020). Trust is a major component of a labeling program's credibility, therefore when claims are used arbitrarily in advertising and labeling, consumers become confused, discouraged, and skeptical (IISD, 2018). Given that many certification programs and standards are voluntary and self-regulated, it is often a challenge to identify and address false claims (Fulponi, 2006), but the need to maintain their reputation and credibility means that many certification bodies regularly carry monitory and enforcement checks to ensure that their labels are not being abused (Winters et. al., 2015).

3.0. METHODOLOGY

The following strategies were used to review the literature for certification and designation programs and engage key HBI stakeholders at UBC to gather input which will inform the implementation and subsequent evaluation of an HBI designation program.



3.1. A literature review of certification programs with a focus on the food and beverage industry.

A review of the literature was conducted by searching databases for publications using relevant search terms. The scholarly databases searched included PubMed, Google Scholar, and Web of Science. The keywords used were certifications, voluntary sustainability standards, ecolabels, designation, sugar-sweetened beverages, sugary beverages, sodas, best practices, implementation, fair trade, ocean wise, rainforest alliance, certified organic, and UTZ certified. Additionally, relevant grey literature was searched using combinations of the above keywords. Publications were included for review based on relevance to the keywords and search results were limited to publications made within the last two decades to observe any recent trends in the use of certifications and voluntary standards. Search results from all databases were crosschecked to avoid any duplications. A total of 28 articles were included in the review. A list of the reviewed literature can be found in appendix 3.



3.2. Stakeholder Engagement Strategy

There were two parts to the engagement strategy. In part one, a total of nine UBC HBIaffiliated stakeholders were contacted through email and invited to a virtual meeting on zoom (video conferencing software) because of the social distancing measures that were in place at the time due to the COVID-19 pandemic. Out of the nine contacted stakeholders, six agreed to take part in the meetings, two preferred to provide input via email, and one did not respond to the email. All eight stakeholders that provided input were either familiar with the HBI program, worked for UBC, or a UBC-affiliated business in the Vancouver or Okanagan campus. The stakeholder consultations were focused on gathering input on the potential roles of the stakeholders in the implementation process, the resources that are available for supporting the implementation, and the anticipated challenges with regards to implementing the designation at outlets and events. A list of the consulted stakeholders, their possible level of involvement, and anticipated challenges or limitations can be found in Table 1. In part two, four private F & B outlets were visited on the Vancouver campus and one individual was interviewed in each location to get an insight into the perception of private businesses of the proposed HBI designation.

4.0. SUMMARY OF KEY FINDINGS

4.1. Literature review: Certification programs and voluntary standards.

The use of certification programs and voluntary standards by businesses, producers, and organizations is well-documented in the literature, however, the actual benefits derived from the adoption of these programs vary from one study to another (Ruben and Zuniga, 2011; Oosterveer et al., 2014). Many small businesses, producers, cooperatives, and organizations find certification programs attractive and join them for a variety of reasons, often paying exorbitant membership and annual auditing fees (Fulponi, 2006; Pavlovskaia, 2014). Some of the documented reasons are discussed below.

4.1.1. Primary reasons for certification programs and voluntary standards

Reputation: Providing consumers with products that meet high quality and safety standards that go beyond the minimum requirements is one of the primary ways of building and maintaining reputation (Fulponi, 2006). Additionally, according to Reardon and Farina (2001), the reputation of private businesses and producers depends on safe products and raw materials, and this acts as an incentive for firms to join voluntary standards and certification programs.

Cooperate Social Responsibility (CSR): A commitment to cooperate social responsibility (CRS) also drives many businesses to join certification programs and voluntary standards. Pulker et al. (2018), examined how CSR commitments to removing nutrient-poor confectionery, snacks, and sweetened beverages from checkouts and related places could contribute to protecting consumers' health. Although CRS are well-intentioned, some companies have been accused of exaggerating the magnitude of their contribution to their CSR commitments (Anaf et.al., 2017), consequently, staining their reputations.

Competition and value addition: Intense competition for consumers is increasingly leading companies and business into improving the standards and quality of their products and services (Ruben and Zuniga, 2011). Smith (2008) showed that high environmental and social standards may even result in a competitive advantage for businesses and equally help them develop mutually beneficial partnerships with suppliers. Not surprisingly, however, competition can also push businesses into looking for ways of adding value to their products and services to increase customer satisfaction, and joining certification programs is a way of helping them add value (Smith, 2008). Unfortunately, competition can push businesses and corporations into unscrupulous practices such as making false and exaggerated claims or paying to receive an award or certification (United Nations Environment Programme,2015).

Legal liability: The fear of being sued by consumers or implicated in legal issues when something goes wrong with their products causes many businesses and producers to improve standards by joining private or voluntary standards and certification programs (Fulponi, 2006). Additionally, being part of certification programs also ensures that products and sourced materials are traceable when consumers are affected by consuming or using the products (Smith, 2008).

Government policies and the rise in NCDs: There is increased pressure from government and public health agencies on food and beverage companies to tackle obesity and other NCDs (Pomeranz, 2012; Fulponi, 2006; BC Ministry of Health, 2013), and the pressure has increased self-regulation within the private sector (Sharma et al., 2010). Government policy measures such as taxation, banning or restricting the availability and sales of SSBs are shown to be effective in reducing consumption (Colchero et.al, 2017; Novak and Brownell, 2011). Although the beverage industry is fighting such taxes with massive lobbying and campaigns (Barquera et al., 2013), Novak and Brownell argued that support for the policies is increasing because of the considerable revenue being generated for public health and obesity prevention campaigns. While some studies have pointed to the benefits of the policies in reducing the consumption of SSBs, others have found that small increases in SSB taxes are unlikely to promote large enough changes in SSB purchases to reduce obesity and NCDs in countries with high rates of SSBs consumption (Caro et al., 2018). Furthermore, Popkin and Hawkes (2016) argued that imposing bans and limitations on the sales of SSBs in schools can not necessarily reduce overall consumption since children can bring these beverages into school and consume them before and after school. The impact of policy measures such as banning, taxation, and restriction of sales on overall consumption differs from one study to another. For example, in a study of university employees in California, Epel et al. (2019) showed that workplace sales ban was associated with reduced consumption of SSBs in the study population.

4.1.2. Trends in certification programs and voluntary standards

The adoption and use of certification and voluntary standards has increased in recent years, mainly because of increasing demands from consumers for higher quality products, the pressure to improve social and economic conditions of producers in developing countries, and environmental and health concerns (Gulbrandsen, 2005; Glasbergen and Schouten, 2015; Riisgaard, 2011). Despite their increased use and adoption, opinion about them is divided: some people believe that they provide consumers with a false sense of product quality and destabilizes international markets, while others see them as transforming how we produce, consume and regulate global products and producers (Glasbergen and Schouten, 2015). The governance of these certification programs is also evolving. According to Komives and Jackson (2014), certification programs and voluntary standards have always required certified entities to implement specified production practices or adopt particular management systems, but it is predicted that these programs and standards will continue to become self-regulated, diverse and adopt higher and more stringent criteria as the needs and expectations of businesses and consumers continue to change (Riisgaard, 2011). Certifications and voluntary standards are also becoming more 'all-inclusive', in the sense that they are expanding their original narrow focus (i.e. either organic, social, or ecological) towards a more inclusive set of criteria that connect social, environmental and economic issues (Glasbergen and Schouten, 2015)

4.1.3. Core elements of successful certification programs and voluntary standards

There are five core elements of successful certification programs and standards identified in the literature, and they include standard-setting, adoption, implementation, monitoring, and enforcement.

Standard-setting: Standard-setting refers to the development of principles criteria, goals, protocols, and indicators for guiding participation in certifications and standards (Winters et al., 2015). Essentially, the setting of standards provides a structural framework on which certification programs and voluntary sustainability standards are built. In the food and beverage industry, for example, companies in the industry share experiences and work towards the establishment of new industry benchmarks and standards in sustainable agriculture through the <u>Sustainable Agriculture Initiative</u>. (Steger et al., 2007).

Adoption: Administrators of certification programs and standards should make conscious decisions about which type of participants to target and when, with respect to the rollout of the program because the adoption of a certification program by businesses and producers is critical to its success (Winters et al., 2015). Adoption is also dependent on the extent to which the program has been promoted by administrators or organizations managing the certification or voluntary standards (Gulbrandsen, 2005). Fundamentally, businesses, producers, and organizations join these programs because they expect to derive some form of benefit through membership. Smith et. al. (2018) explained that providing incentives can help increase adoption and membership of the programs and standards.

Implementation: Certification programs take different approaches in awarding certification to their participants, but the implementation requirements and when businesses and producers are able to achieve certification are likely to impact participation rates (Winters et al., 2015). That is why Smith et al. (2019) emphasized the importance of separating standards from their implementing mechanism to help facilitate the process and increase participation. According to Smith, the standards (i.e., the principles, criteria, and indicators) define the "rules of the game" for producers and businesses.

Enforcement: Ensuring compliance is fundamental to a certification program's success, thus, the need for an enforcement mechanism. Guthman (2007) explained that consumer confidence in a product depends on the perceived rigor of the enforcement mechanisms of the product or businesses' certification program. Unfortunately, non-compliance is a common issue that is faced by many certification programs and voluntary standards, but some certification programs often hesitate in revoking certification because of the risk of losing members. Instead, they seek to strike a balance between maintaining their commitments to enforcement to the extent necessary to satisfy external stakeholders while maintaining the program's credibility (Winters et al., 2015).

Monitoring: Monitoring is a core element of successful certification and voluntary standards as it helps administrators of certification programs to quickly identify and address any issues of non-compliance. Among other things, monitoring can help to shape the legitimacy and credibility of certification programs (Raynolds et al., 2007). According to Winters et al. (2015), monitoring can help certification

programs and standards ensure that they are meeting the objectives of their programs and make changes to improve core program activities where necessary.

4.1.4. Certification programs and voluntary standards in the beverage industry

There is a documented use of certification programs and voluntary standards by both small scale and large businesses and organizations in the literature (Derkx and Glasbergen, 2014; Winters et al., 2015; Guthman, 2007). While the use of certifications is common in sectors such as fisheries, forestry, and agriculture, literature on their use in the food and beverage industry is scanty. What is common in the food and beverage industry and many other industries is the use of labels to describe the nutritional benefits and positive qualities of products (Guthman, 2007). Despite their limited use, Raynolds et al. (2006), explained that certifications are expanding very rapidly in the global food sector, because of increasing concerns over the environment, production conditions, and human health.

4.2. Stakeholder Engagement

The successful implementation of the HBI designation depends on the contributions of various stakeholders whose inputs are important to consider throughout the processes. With that in mind, some HBI and non-HBI affiliated stakeholders were engaged to gather necessary input on resource availability, potential roles of individual stakeholders, and anticipated challenges of implementing the designation. A summary of the findings is discussed below.

4.2.1. Key findings from stakeholder consultations

Support and Interest: Consulted stakeholders expressed support and interest in the HBI. Although there is overwhelming support for the designation program. Many of the consulted stakeholders raised the issue of external sponsors and the difficulty of balancing the interest of the sponsors with the objectives of the designation program. The external sponsors are often beverage companies that have sponsorship agreements with outlets and distribute their beverage products through these campus outlets (e.g. AMS has a sponsorship agreement with Coca Cola).Table 1outlines the stakeholders that were consulted.

Availability of resources: Many HBI stakeholders expressed interest in making the necessary policy or structural changes (e.g. remove SSBs from vending machines), but no tangible resources were offered by the consulted stakeholders. As a university-funded initiative, the expectation is that the HBI team will provide the needed resources for implementing and evaluating the impact of the designation.

Private F & B outlets (Non-HBI Stakeholders): The four businesses that were surveyed expressed varying degrees of interest in joining the HBI designation, but they highlighted the need to be provided additional information regarding the designation including the requirements and membership benefits. The three businesses surveyed include Blue Chip Café, Koerner's Pub, Boulevard Coffee Roasting Co., and Grocery CheckOut.

Stakeholder	Area/ Department	Potential Roles	Challenges & limitations
UBC Food Services (Vancouver & Okanagan)	Food and beverages services	 Designating outlets and events as HBI. Including an HBI requirement in the rental contracts/agreement with private vendors and outlets. Removing SSBs from vending machines to meet the HBI designation criteria. 	 Designating private events as HBI events could be a challenge as some event organizers might want SSBs to be provided.
UBC Events and Outreach	Events and outreach activities	 Working with partners to implement the designation for UBC events and related activities. 	 Implementing HBI designation for certain events (e.g. events sponsored by beverage companies or similar sponsors)
Food and Nutrition Committee	Nutrition and Wellbeing	 Providing leadership, support, and oversight. 	 Working with multiple stakeholders to implement the designation
AMS Sustainability	Food and beverage, Sustainability	 Implementing designation for AMS-affiliated outlets, events, Removing SSBs from AMS owned or operated vending machines. Working with sponsors and partners to encourage the designation of events as HBI events. 	 Limited influence over the choice of private businesses (non-AMS affiliated), vendors and franchise to become HBI designated.
AMS Events & Programming	Food and beverage Events, Programming	 Implementing designation for AMS and affiliated outlets and events. Removing SSBs AMS owned or operated vending machines and outlets 	 Limiting the sale SSBs at events sponsored by beverage companies. Limited influence over private vendors and outlets that have lease agreements with AMS.

Table 1: List of key HBI stakeholders, level of involvement, and challenges and limitations

5.0. CASE STUDIES AND BEST PRACTICES

Several certification programs and voluntary standards have become household names in many countries around the world. While the primary objectives of these programs and standards may vary from one program to another, many programs have the protection of human health and environmental sustainability as central themes. Examples of these programs are discussed below.

5.1. Fairtrade Certification

Fairtrade (FT) is a trade-system that offers farmers and workers in developing countries better trading options while allowing consumers to reduce poverty and economic inequality through everyday shopping (Fairtrade Canada,n.d). Fairtrade criteria focus on production and trade conditions (Raynolds, 2000). Examples of Fairtrade products including cotton, textile, gold, bananas, and coffee.

Countries: Over 73 countries



Fairtrade Label: The label indicates that specific standards have been implemented for the production of the product. There are many variations of the mark depending on the types of ingredients, product, and traceability of the product's raw materials. The main label (Figure 3) is used when a product has only one ingredient that is Fairtrade certified and is physically traceable (Fairtrade Canada, n.d).

Figure 3: Fairtrade logo

Fairtrade In Canada

Fairtrade Canada was established in 1994, and the popularity of the Fairtrade label has been gradually increasing because of increased demand for certified products (Fairtrade Canada, n.d). A recent GlobeScan study found that: 85% of Canadian consumers who have seen the Fairtrade label trust it, and 80% say that it positively impacts on their perceptions of labeled products (Globe Scan, 2019).

Fairtrade in BC

According to Fairtrade Canada, there are over 40 businesses, brands, and companies selling Fairtrade products in BC. Examples of these brands and businesses are listed in the table below.

Name	Product	Location	Fairtrade Status
Whistler Chocolate	Chocolate	Whistler, BC	Licensed brand
Spirit Bear Coffee	Coffee	Port Coquitlam	Licensed brand
Discovery Organics Ltd	Bananas, produce	Vancouver, BC	Licensee company
Rumble Nutrition Ltd	Protein Shakes	Victoria, BC	Licensee company
Doi Chaang Coffee Company Inc.	Coffee	Vancouver, BC	Trader
Swiss Water Decaffeinated Coffee Co. Inc.	Coffee	Burnaby, BC	Trader

Table 2: Examples of Fairtrade brands, businesses, and companies in BC.

Type of Fairtrade Certifications

In addition to certifying products, producers and businesses, Fairtrade also certifies workplaces, events, university campuses, and towns that meet certain prescribed criteria and standards. Examples include:

Fairtrade Event: The Fairtrade Event designation recognizes events that demonstrate a strong commitment to Fairtrade and Fairtrade certified products. To become a designated event, organizers need to submit a completed application form demonstrating compliance with specified requirements which include ensuring the availability of Fairtrade certified products at the event, committing to promoting and raising awareness about Fairtrade products (Canadian Fairtrade Network, 2020).

Fairtrade Campus: The Fairtrade Campus designation recognizes colleges and universities that demonstrate a strong commitment to Fairtrade. The UBC became Canada's first Fairtrade Campus when it received the designation in 2011 (Fairtrade Canada, n.d). Other Fairtrade campuses in Canada include Simon Fraser University and Brock University.

Fairtrade Town: The Fairtrade Town designation recognizes municipalities demonstrating strong commitment to Fairtrade from its community stakeholders, including local municipal authorities (such as a city council), businesses, community groups, and individual members. The Fairtrade Town program in Canada is part of a global movement that has recognized over 2,030 towns around the world, and 27 of these designated towns are in Canada (CFN,2020)

Elements	Summary	Challenges & limitations
Standard- Setting	Fairtrade standards are set by the Fairtrade Labelling Organization (FLO). The standards incorporate comprehensive social, economic, environmental criteria that enable farmers and workers to strengthen the communities they live and work in (Fairtrade Canada, n.d).	 FLO requires extensive record-keeping (e.g. record of every daily activity, with dates and names, products, etc.)
Adoption	Fairtrade increases adoption by providing incentives to potential members (e.g. for farmers that are struggling to remain in business). Additionally, they offer higher prices and new markets for smallholder farmers that help farmers stay in businesses (Fairtrade Canada, n.d).	 this has proven to be a challenge for many people (Haight, 2011) While the ethical buyer is willing to pay a little more for Fairtrade certified products, not everyone is able to pay the extra cost that comes with buying Fairtrade
Implementation	Fairtrade criteria must be met before certification. Fairtrade officers work with the partner organizations to ensure a smooth implementation and monitoring of the company's performance based on the set criteria (Suzianti et al., 2018).	
Enforcement	Fairtrade regulations require extensive record-keeping. This ensures that individual farmers have access to information that	

Table 3: Elements, challenges, and limitations of Fairtrade's success

	enables them to make informed business and agricultural decisions (Haight, 2011).	certified products (Raynolds, 2000).
Monitoring	The Fairtrade supply chain is continuously checked for compliance; from the field to when the product is packaged and ready for consumption. Additionally, farmers and traders are annually audited by FLOCERT or Fairtrade Canada (Fairtrade Canada, n.d).	• For small-scale businesses, the membership and annual auditing fees for maintaining certification can be a challenge (winters et al., 2015).

5.2. Rainforest Alliance Certification

The Rainforest Alliance (RA) was founded in 1987. It has built an alliance that includes farmers and forest communities, companies, and consumers that work together to conserve critically important forests and cultivate sustainable livelihoods. Its areas of focus include forests, climate change, livelihoods, and human rights (Rainforest Alliance, n.d).

Countries: Over 60 countries



Rainforest Alliance label: The Rainforest Alliance label shows that farms, forests, and businesses have met rigorous environmental and social standards.

Figure 4: Rainforest Alliance logo

Rainforest Alliance in Canada:

Rainforest Alliance works with companies, landowners, forest communities, and partner organizations to advance sustainable forest management throughout the biodiversity-rich forest landscapes of Canada. RA is working to spread sustainable forestry throughout timber-rich regions of Canada through certification and forest-carbon project validation and verification (Rainforest Alliance, n.d).

Table 4: Examples of Rainforest Alliance members in Canada

Business/Organization	Product category	Membership Category
Costco	Flowers, coffee, tea	Flowers & Plants, Food & beverage
Muskoka Roastery Coffee Co	Coffee	Food and beverage
McDonald's Canada	Coffee	Food and beverage
Cliff Bar	Chocolate	Food and beverage
Lipton	Tea	Food and beverage

Membership Criteria for farmers:

To earn certification, the following certification requirements must be met:

- Conduct a baseline farm assessment.
- Ensure that old product do not exceed harvest volume.
- Prevent the mixing of certified product with non-certified products.
- Complete an environmental and social impact assessment.

Application procedure for farmers

- Prepare for the farm's certification audit.
- Find an authorized Rainforest Alliance certification body.
- Host the farm auditing team.
- Get certified and sell Rainforest Alliance Certified crops.

Elements	Summary	Challenges & limitations	
Standard- Setting	RA standards are set by the Sustainable Agriculture Network (SAN). The standard structure consists of ten principles each of which is composed of various criteria and indicators which form the core of the standards to be met by companies for certification (Ochieng et al.,2013; Rainforest Alliance, n.d).	 While the cost of certification varies depending on your role in the supply 	
Adoption	RA conduct training which helps employees of certified businesses and organizations to understand the environmental impacts of their activities and help increase (Ochieng et al., 2013).	chain, the cost can be expensive for some small businesses and	
Implementation	For producers, RA certification is awarded to collective or a "Group". The Group is often responsible for coordinating the commercialization of product, training, and technical assistance of group members, as well as internal inspections and the corresponding follow-up actions (Rainforest Alliance, n.d).	organizations.The lengthy application process might be a	
Enforcement	RA carries out investigation audits in response to a complaint, reported incident, or substantial information regarding the performance of a certified organization relating to one or more criteria. Investigation audits may be carried out at any time (Rainforest Alliance, n.d).	hinderance for prospective members.	
Monitoring	An assessment is carried out when an organization applies for RA certification for the first time, and then annually afterward. In order to remain certified, farms and administrators have to demonstrate an increasingly higher degree of compliance over time. (Rainforest Alliance, n.d).		

Table 5: Elements, challenges, and limitations of Rainforest Alliance's success

5.3. Ocean Wise Seafood Program

Ocean Wise is a seafood labeling program that was launched by the Vancouver Aquarium in 2005. The goal of the program is to educate and empower consumers about the issues surrounding sustainable seafood. There are over 700 Ocean Wise partners in Canada (Ocean Wise, n.d; Dolmage et al., 2016).

Countries: Canada (1 country)



Ocean Wise Label: The Ocean Wise label on a seafood item shows that it is an ocean-friendly and sustainable seafood product.

Figure 5: Ocean Wise logo

• Ocean Wise partners in BC

As a Vancouver Aquarium led initiative, there are several restaurants and businesses that are members of the network in Vancouver and BC. Examples are listed below.

Name	Service/ Product	Location	Membership type
7 Seas Fish Market	Grocery	Vancouver	Partner
Point Grey Golf Club	Casual Dining	Vancouver, BC	Partner
Hardy Buoys Smoked Fish Inc	Small distributor	Port Hardy	Partner
Calkins & Burke	Small distributor	Vancouver, BC	Partner
Pacific Poke- Kitsilano	Quick Service	Vancouver, BC	Partner

Table 6. Examples of Ocean Wise partner brands and businesses in BC

Ocean Wise partnership criteria

To become an Ocean Wise partner, organizations are required to meet the following criteria:

- Be a Canadian business that serves or sells seafood or any business selling seafood into Canada.
- Complete a seafood assessment and pay an annual membership fee
- Obtain a branding approval to use the Ocean Wise seafood logos.
- Train its staff so that they are able to explain the program, its goals, and the meaning of the logo

Elements	Summary	Challenges & limitations
Standard- Setting	Ocean Wise provides recommendations that are based on the assessments of the Seafood Watch program methodology which divides seafood into wild capture and aquaculture. However, unlike the Seafood Watch's traffic light system, Ocean Wise's classification system is based on two categories: sustainable (Ocean Wise) or unsustainable (Not Recommended).	 Unlike certification programs such as the Marine Stewardship Council (MSC), Ocean Wise is primarily a recommendation program,
Adoption	Like similar seafood labeling programs, Ocean Wise highlights sustainable choices which help consumers make environmentally friendly decisions, this has increased Ocean Wise's appeal especially among sustainability-oriented buyers (Dolmage et al., 2016)	and it conducts no third- party audits (Dolmage et al., 2016)Ocean Wise focuses on
Implementation	Restaurateurs must submit their current seafood procurement list to the Ocean Wise staff for review as part of the membership application process. Items that are Ocean Wise recommended will be identified and alternatives to other items are suggested. (Dolmage et al.,2016).	larger producers or producers with wider markets which means that small-scale fisheries do not benefit as much (Domlage
Enforcement	While there are not annual third-party audits and assessments, Ocean Wise assesses the seafood that partners are using at the time of application for membership. New members must only source one Ocean Wise item, but they must commit to replacing unsustainable items in the future (Ocean wise, n.d).	 et al., 2016) Although the program may be attractive for some businesses, the membership cost is significant. It used to be attracted to be
Monitoring	Through partnerships with Seafood Watch and SeaChoice, Ocean Wise receives scientific assessments fisheries and aquaculture operations. The assessments determine effectiveness, stock status, and other factors to create a numerical sustainability score for fisheries (Dolmage et al., 2016).	cost is significant. It used to be a free service, but it now charges an annual fee of \$300 to offset operating costs (Ocean Wise, n.d; Domlage et al., 2016).

Table 7: Elements, challenges, and limitations of Ocean Wise's success

5.4. Certification programs in university campus settings

Many of the well-known certification programs such as Fairtrade certified universities (e.g. Fairtrade Campus), but there is no evidence of a beverage-specific certification program that is implemented and operated by a university campus. However, some universities such as the University of California, Berkeley¹; University of Portland²; University of California, Davis³, and Columbia University⁴ have all implemented some version of a food and health-related certification program on their campus.

5.4.1. University of California, Berkeley

Healthy Department Certification program: The certification program is dedicated to creating a sustainable healthy workplace community where faculty and staff are more engaged, energized, and empowered to lead a healthy lifestyle and prevent injury and illness at work¹. (See Appendix 2 for criteria).



Certification is awarded to departments that demonstrate a commitment to fostering a culture of emotional, physical, social, spiritual, occupational, and intellectual wellbeing that can help to create a more inclusive, productive, and cohesive work environment¹.

Figure 6: UC Berkeley's Healthy Department Certification logo

The Healthy Department Certification program has three levels of certification namely, Gold, Blue, and Silver certifications¹.



Gold Certification: Gold Certified Healthy Departments have fostered a culture of health and well-being where organizational leadership, department norms, core values and the built environment have aligned and support a sustainable healthy workplace culture for faculty and staff. These departments meet 90% or more of the healthy workplace criteria.

Benefits:

- A framed certificate from the Chancellor
- A Healthy Department Seal to feature on your website
- <u>Public recognition</u> on the Healthy Department Certification website



Blue Certification: Blue Certified Healthy Departments successfully engage faculty and staff and influence a culture of health and well-being through various worksite wellness and environmental initiatives and programs. These departments meet at least 75% of the healthy workplace criteria.

Benefits:

- A Healthy Department Seal to feature on your website
- <u>Public recognition</u> on the Healthy Department Certification website



Silver Certification: Silver

Certified Healthy Departments strive to create a safe and healthy workplace and support employees to engage in healthier behaviors. These departments meet at least 60% of the workplace criteria.

Benefits:

- A Healthy Department Seal to feature on your website
- <u>Public recognition</u> on the Healthy Department Certification website

¹Table 8: UC Berkeley's Healthy Department Certification application process

Step 1	Schedule a 15-minute phone consultation with the Healthy Department Certification Coordinator for briefing on the goals, process and evaluation required (<i>optional</i>).
Step 2	Review the <u>Wellness Culture Assessment Worksheet</u> and conduct a culture assessment for your department. ("Department" is used generically to mean any department, office, unit, academic or other administrative units of 10 or more members. Members can be faculty, staff, and/or students).
Step 3	Complete the Healthy Department Certification Application via Google Docs.
Step 4	Share your completed application with the Healthy Department Certification Coordinator prior to the Fall/Spring deadlines.
Step 5	The Healthy Department Certification Program Planning Committee will review your application and will contact you if additional information is needed in their review.

5.4.2. Portland State University

Portland State University (PSU) has type two certification programs. The programs are Healthy Food Vendor Certification and Healthy Department Certification².



1. Healthy Food Vendor Certification: The Healthy Vendor Certification recognizes food vendors that offer healthy, diverse, sustainable, and affordable food options within proximity of the Portland State University campus².

Figure 7: PSU's Healthy Food Vendor Certification logo

Certification criteria include:

- Alignment with nutritional guidelines of the USDA
- Accommodation for specialty diets (vegan, vegetarian, Halal, Kosher, Hindu)
- Sustainable food practices
- Affordability

Membership Benefits:

Certified vendors are listed on the Health Campus Initiative (HCI) website



2. Healthy Department Certification: The Healthy Department Certification promotes an environment of health at Portland State University. The aim of the certification is to encourage the entire Portland State University Community to take an active role in creating a healthier work environment². There are three levels of the certification program and they are Gold, Silver, and Bronze.

Figure 8: PSU's Healthy Department 'Gold' Certification logo



Figure 9: The three levels of Portland State University's Healthy Department Certification

Application process for Healthy Department Certification:

- Review the <u>Healthy Department Certification questions</u>.
- Complete the online application form the <u>online application</u>

Benefits of Healthy Department Certification:

- Window decal for office window
- Healthy Department certificate
- Health prize pack
- Consultation and support on areas of improvement (all applications)

5.4.3. University of California, Davis

The Healthy Department Certification: The Healthy Department Certification was launched in Fall 2018 and the aim of the program is to recognize UC Davis departments or units that have demonstrated a dedication to employee health and well-being³. There are three levels of certification and they are: Striving for Certified Healthy, Certified Healthy, and Gold Certified Healthy.

5.4.4. Columbia University

The Healthier Columbia Food and Beverage Initiative: Healthier Columbia program offers food, beverage, and nutrition recommendations that foster a healthier eating pattern for the Columbia community. There are recommendations and guidelines for <u>meetings and events</u>, <u>cafés or cafeterias</u> on campus, and <u>beverages and vending machines</u>⁴. Businesses and outlets that follow the recommendations and guidelines are rewarded with a Healthier Columbia Approved seal for their products.

5.5. Summary of case studies and best practices

There are five core elements that form the pillars of successful certification programs. The elements are standards (i.e. set of criteria), implementation, adoption, monitoring, and enforcement. To be successful, the standards should be well defined to give prospective members a good understanding of the requirements that they expected to meet and how their membership applications will be assessed. Well defined criteria can also help businesses determine if there are aspects of their operations or business as a whole that should adjusted before applying for certification or engaging the certification body. Secondly, the implementation of the certification is equally as important as the standards/criteria that are set, because a successfully implemented program can increase both credibility and adoption of the program. Program adoption and membership can also be increased by clearly defining the benefits of the program for prospective members. Lastly, all successful certification programs have functioning monitoring and enforcement mechanisms in place to ensure that both the integrity and credibility of the program is maintained. Depending on the program, the measures can range from annual reassessment and recertification, and site/ location visits. Enforcement measures can include issuing of fines or withdrawal of certification status for businesses that fail to comply with the set standards. It is also worth noting that the success of any certification program depends largely on the program's ability to meet the needs of the businesses that rely on it for a variety of reasons including competition, credibility, and customer satisfaction purposes among others.

6.0. RECOMMENDATIONS

These recommendations are informed by a review of the literature on certification programs, and consultation of key HBI stakeholders. The recommendations are meant to guide the implementation of an HBI designation program to help increase the consumption of healthy beverages at UBC.

- Engage the UBC leadership to seek HBI compliant food and beverage sponsorships, and gradually phase-out corporate sponsorships, advertisements, and endorsements from unhealthy food and beverage companies unless they agree to become HBI compliant: Sponsorships from food and beverage companies that are not HBI compliant can have a significant impact of HBI's effort to increase the consumption of healthy beverages on UBC campuses. It is therefore recommended that the UBC leadership phase out sponsorships from companies promoting unhealthy beverages unless they agree to become HBI compliant, and put an HBI requirement in place for prospective food and beverage sponsors and advertisers, to ensure that only HBI complaints companies and businesses are able to advertise their products or sponsor university events and departments.
- Work with the relevant UBC departments to incorporate a healthy beverage requirement in lease contracts and agreements for all food and beverage outlets on UBC campuses: Non- UBC owned or affiliated (private) food and beverage outlets play a significant role in shaping the university

food environment. While UBC owned or affiliated outlets might easily adopt an HBI designation in support of the university's long-term goal of increasing healthy beverage consumption, not all private businesses will swiftly adopt an HBI designation. It is therefore recommended that the HBI team engage the relevant UBC departments to incorporate an HBI requirement into the lease agreement of all food and beverage outlets on UBC campuses. This will ensure encourage all outlets whether university-affiliated or not to adopt the designation and contribute to increasing the consumption of healthy beverages at UBC.

- Create a public recognition system to promote certified members and attract prospective members: The food and beverage outlets that serve the UBC community are relatively clustered within and around the UBC campuses, hence, word of the designation program can be spread with the right amount of marketing and promotion. It is therefore recommended that a public recognition system be created to ensure that HBI designated outlets are rewarded with public recognition and promotion, and outlets that are yet to be certified are also encouraged to join the program. Most food and beverage outlets will see the public recognition (e.g. list an outlet on the HBI website or social media platforms as HBI outlet of the month) as a way for them to promote and further establish their businesses and brands within the university community, and also be seen as a business that is committed to the health and wellbeing of UBC students, faculty and staff.
- Develop a comprehensive monitoring and enforcement strategy for assessing and addressing issues of non-compliance with the designation criteria: Non-compliance can affect the integrity and credibility of a certification program. It is therefore recommended that monitory measures such as biannual or yearly reporting of beverage sales and in-person visits of the outlets by the HBI team be put in place to ensure that non-compliant outlets are quickly identified and the necessary enforcement measures such as a warning, fining or withdrawal of certification are taken to protect the program's credibility and integrity.
- Engage relevant UBC departments in the creation of an effective communication and educational plan that will help promote the HBI designation program and HBI designated outlets among the wider UBC community: The more effectively the message of the program is communicated to the food and beverage outlets and the public educated about the objectives of the program, the more impactful the program is likely to be. Thus, it is recommended that a communication and education plan be created with support from experts from relevant UBC departments (e.g. UBC communications). A good plan will ensure that any policy, point-of-purchase, or system changes, and other features of the program are effectively communicated to the outlets and the wider UBC community. Additionally, the plan will ensure that the necessary training and guidance on things such as reporting is provided to the outlets and other relevant individuals or departments (e.g. people that make food and beverage orders for UBC Food Services, or stock vending machines).

7.0. REFERENCES

- Momin, S. R., Duna, M., & Wood, A. C. (2020). The Association Between Sugar-Sweetened Beverages and Child Obesity: Implications for US Policy. *Safety Issues in Beverage Production*, 451-483. doi:10.1016/b978-0-12-816679-6.00014-0
- Centers for Disease Control and Prevention (CDC). Get the Facts: Sugar-Sweetened Beverages and Consumption. (2017, February 27). Retrieved June 09, 2020, from https://www.cdc.gov/nutrition/data-statistics/sugar-sweetened-beverages-intake.html.
- Murray, R., Bhatia, J. J. S., Okamoto, J., Allison, M., Ancona, R., Attisha, E., De Pinto, C., Holmes, B., Kjolhede, C., Lerner, M., Minier, M., Weiss-Harrison, A., Young, T., Devore, C., Barnett, S., Grant, L., Johnson, V., Mattey, E., Vernon-Smiley, M., ..Burrowes, D. L. (2015). Snacks, sweetened beverages, added sugars, and schools. *Pediatrics*, 135(3), 575-583. https://doi.org/10.1542/peds.2014-3902
- Huth, P. J., Fulgoni, V. L., Keast, D. R., Park, K., & Auestad, N. (2013). Major food sources of calories, added sugars, and saturated fat and their contribution to essential nutrient intakes in the U.S. diet: Data from the national health and nutrition examination survey (2003–2006). *Nutrition Journal*, 12(1). doi:10.1186/1475-2891-12-116
- World Health Organization. WHO calls on countries to reduce sugars intake among adults and children. (2016, May 17). Retrieved June 09, 2020, from https://www.who.int/mediacentre/news/releases/2015/sugar-guideline/en/.
- Day, J. (2017, May 23). Healthy Beverages: Human Resources: Johns Hopkins Hospital & Health System. Retrieved June 09, 2020, from www.hopkinsmedicine.org/human_resources/benefits/healthy_at_hopkins/healthy_beverages/.
- Healthy Eating Advisory Service. (2020, February 13). Traffic light system. Retrieved June 29, 2020, from https://heas.health.vic.gov.au/healthy-choices/guidelines/traffic-light-system.
- Harvard School of Public Health (HSPH). (2016, April 12). Public Health Concerns: Sugary Drinks. Retrieved July 28, 2020, from https://www.hsph.harvard.edu/nutritionsource/healthydrinks/beverages-public-health-concerns/
- Roh, S., & Schuldt, J. P. (2014). Where there's a will: Can highlighting future youth-targeted marketing increase support for soda taxes? *Health Psychology*, *33*(12), 1610-1613. doi:10.1037/hea0000021
- Ferretti, F., & Mariani, M. (2019). Sugar-sweetened beverage affordability and the prevalence of overweight and obesity in a cross section of countries. *Globalization and Health*, 15(1). doi:10.1186/s12992-019-0474-x
- Forde, H., White, M., Levy, L., Greaves, F., Hammond, D., Vanderlee, L., ... Adams, J. (2019). The Relationship between Self-Reported Exposure to Sugar-Sweetened Beverage Promotions and Intake: Cross-Sectional Analysis of the 2017 International Food Policy Study. *Nutrients*, 11(12), 3047. doi:10.3390/nu11123047
- Vanderlee, L., Manske, S., Murnaghan, D., Hanning, R., & Hammond, D. (2014). Sugar-Sweetened Beverage Consumption Among a Subset of Canadian Youth. *Journal of School Health*, 84(3), 168-176. doi:10.1111/josh.12139

- Schulze, M. B. (2004). Sugar-Sweetened Beverages, Weight Gain, and Incidence of Type 2 Diabetes in Young and Middle-Aged Women. *Jama*, 292(8), 927. doi:10.1001/jama.292.8.927
- Malik, V. S., Popkin, B. M., Bray, G. A., Després, J., & Hu, F. B. (2010). Sugar-Sweetened Beverages, Obesity, Type 2 Diabetes Mellitus, and Cardiovascular Disease Risk. *Circulation*, 121(11), 1356-1364. doi:10.1161/circulationaha.109.876185
- Singh, G. M., Micha, R., Khatibzadeh, S., Lim, S., Ezzati, M., & Mozaffarian, D. (2015). Estimated Global, Regional, and National Disease Burdens Related to Sugar-Sweetened Beverage Consumption in 2010. *Circulation*, 132(8), 639-666. doi:10.1161/circulationaha.114.010636
- Bennett, J. E., Stevens, G. A., Mathers, C. D., Bonita, R., Rehm, J., Kruk, M. E., ... & Beagley, J. (2018). NCD Countdown 2030: worldwide trends in non-communicable disease mortality and progress towards Sustainable Development Goal target 3.4. *The Lancet*, 392(10152), 1072-1088
- Statistics Canada. (2020). Leading causes of death, total population, by age group. Retrieved June 29, 2020, from https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310039401.
- UBC Wellbeing. (2018). A Healthy Beverage Initiative at UBC [PDF file]. Retrieved 6 June,2020 from https://wellbeing.ubc.ca/files/u91/HBI_Backgrounder_20180904.pdf.
- Di Sebastiano, K., Kozicky, S., Baker, M., Dolf, M., and Faulkner, G. (2020). The University of British Columbia Healthy Beverage Initiative: Changing the beverage landscape on a large postsecondary campus. (2020). Unpublished manuscript.
- Jones, A. C., Kirkpatrick, S. I., & Hammond, D. (2019). Beverage consumption and energy intake among Canadians: Analyses of 2004 and 2015 national dietary intake data. *Nutrition Journal*, *18*(1). doi:10.1186/s12937-019-0488-5
- Agriculture and Agri-Food Canada (AAFC). (2019, April 17). Government of Canada / Gouvernement du Canada. Retrieved August 12, 2020, from https://www5.agr.gc.ca/eng/customized-report-service-health-and-wellness-trends-in-canada/?id=1554401656839
- Boelsen-Robinson, T., Backholer, K., Corben, K., Blake, M. R., Palermo, C., & Peeters, A. (2017). The effect of a change to healthy vending in a major Australian health service on sales of healthy and unhealthy food and beverages. *Appetite*, 114, 73–81. doi: 10.1016/j.appet.2017.03.026
- Pharis, M. L., Colby, L., Wagner, A., & Mallya, G. (2017). Sales of healthy snacks and beverages following the implementation of healthy vending standards in City of Philadelphia vending machines. *Public Health Nutrition*, 21(2), 339–345. doi: 10.1017/s1368980017001914
- Kozicky, S., A Healthy Beverage Initiative: University of British Columbia Campus Engagement. Sustainability Scholar, UBC Wellbeing, 2018.
- Di Sebastiano, K., Removing Sugar Sweetened Beverages from UBC Dining Halls. 2019.

- Burt, E. (2019). Nudge theory can help change your employees' behaviour (without them even realising). Retrieved June 10, 2020, from https://www.peoplemanagement.co.uk/long-reads/articles/nudge-theory-change-employees-behaviour-without-realising.
- Hagmann, D., Siegrist, M., & Hartmann, C. (2018). Taxes, labels, or nudges? Public acceptance of various interventions designed to reduce sugar intake. *Food Policy*, 79, 156-165. doi:10.1016/j.foodpol.2018.06.008
- All ecolabels: Ecolabel Index. (n.d.). Retrieved June 11, 2020, from http://www.ecolabelindex.com/ecolabels/.
- International Institute for Sustainable Development. (2018, August 20). Voluntary Sustainability Standards. Retrieved June 11, 2020, from https://www.iisd.org/topic/voluntary-sustainability-standards.
- Food and Agricultural Organization (FAO). (2008). *CERTIFICATION IN THE VALUE CHAIN FOR FRESH FRUITS: The Example Of Banana Industry* [PDF file] (p. 3). Retrieved 11 June 2020, from http://www.fao.org/3/a-i0529e.pdf.
- Smith, W. K., Nelson, E., Johnson, J. A., Polasky, S., Milder, J. C., Gerber, J. S., .. Pennington, D. N. (2019). Voluntary sustainability standards could significantly reduce detrimental impacts of global agriculture. *Proceedings of the National Academy of Sciences*, 116(6), 2130-2137. doi:10.1073/pnas.1707812116
- Marx, A., & Wouters, J. (2014). Competition and cooperation in the market of voluntary sustainability standards. *The Law, Economics and Politics of International Standardisation*, 215-241. doi:10.1017/cbo9781316423240.011
- Winters, P., Kuo, H., Niljinda, C., Chen, B., Alves-Pinto, H. N., Ongun, M., Newton, P. (2015). Voluntary Certification Design Choices Influence Producer Participation, Stakeholder Acceptance, and Environmental Sustainability in Commodity Agriculture Sectors in Tropical Forest Landscapes. *Journal of Sustainable Forestry*, 34(6-7), 581-604. doi:10.1080/10549811.2015.1017884
- Chiputwa, B., Spielman, D. J., and Qaim, M. (2015). Food Standards, Certification, and Poverty among Coffee Farmers in Uganda. *World Development*, *66*, 400-412. doi:10.1016/j.worlddev.2014.09.006
- Brownbill, A. L., Braunack-Mayer, A. J., & Miller, C. L. (2020). What makes a beverage healthy? A qualitative study of young adults' conceptualisation of sugar-containing beverage healthfulness. *Appetite*, *150*, 104675. doi:10.1016/j.appet.2020.104675
- Iraldo, F., Griesshammer, R., & Kahlenborn, W. (2020). The future of ecolabels. *The International Journal of Life Cycle Assessment*, 25(5), 833-839. doi:10.1007/s11367-020-01741-9
- Fulponi, L. (2006). Private voluntary standards in the food system: The perspective of major food retailers in OECD countries. *Food policy*, *31*(1), 1-13.

- Ruben, R., & Zuniga, G. (2011). How standards compete: comparative impact of coffee certification schemes in Northern Nicaragua. *Supply Chain Management: An International Journal*.
- Oosterveer, P., Adjei, B. E., Vellema, S., & Slingerland, M. (2014). Global sustainability standards and food security: Exploring unintended effects of voluntary certification in palm oil. *Global Food Security*, 3(3-4), 220-226.
- Pavlovskaia, E. (2014). Sustainability criteria: their indicators, control, and monitoring (with examples from the biofuel sector). *Environmental Sciences Europe*, 26(1), 1-12.
- Reardon, T., & Farina, E. (2001). The rise of private food quality and safety standards: illustrations from Brazil. *The International Food and Agribusiness Management Review*, 4(4), 413-421.
- Pulker, C. E., Trapp, G. S., Scott, J. A., & Pollard, C. M. (2018). Global supermarkets' corporate social responsibility commitments to public health: A content analysis. *Globalization and Health*, 14(1). doi:10.1186/s12992-018-0440-z
- Anaf, J., Baum, F. E., Fisher, M., Harris, E., & Friel, S. (2017). Assessing the health impact of transnational corporations: a case study on McDonald's Australia. *Globalization and health*,13(1), 7.
- Smith, B. G. (2008). Developing sustainable food supply chains. Philosophical Transactions of the Royal Society B: Biological Sciences, 363(1492), 849-861.
- United Nations Environment Programme (UNEP). (2015). Sustainable Consumption and Production: A Handbook for Policymakers. [PDF file]. Retrieved 12 July,2020. https://sustainabledevelopment.un.org/content/documents/1951Sustainable%20Consumption.pdf
- Pomeranz, J. L. (2012). Advanced policy options to regulate sugar-sweetened beverages to support public health. *Journal of Public Health Policy*, 33(1), 75-88.
- BC Ministry of Health. (2013, March 25). Healthy Eating| Guidelines for Beverage Sales in Schools.[PDF file]. Retrieved July 12, 2020, from https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/healthyschools/2013_food_guidelines.pdf.
- Sharma, L. L., Teret, S. P., & Brownell, K. D. (2010). The food industry and self-regulation: standards to promote success and to avoid public health failures. *American Journal of Public Health*, 100(2), 240-246.
- Colchero, M. A., Rivera-Dommarco, J., Popkin, B. M., & Ng, S. W. (2017). In Mexico, evidence of sustained consumer response two years after implementing a sugar-sweetened beverage tax. *Health Affairs*, 36(3), 564-571.
- Novak, N., & D Brownell, K. (2011). Taxation as prevention and as a treatment for obesity: the case of sugar-sweetened beverages. *Current pharmaceutical design*, 17(12), 1218-1222.

- Barquera, S., Campos, I., & Rivera, J. A. (2013). M exico attempts to tackle obesity: the process, results, push backs and future challenges. *Obesity reviews*, 14, 69-78.
- Caro, J. C., Corvalán, C., Reyes, M., Silva, A., Popkin, B., & Taillie, L. S. (2018). Chile's 2014 sugarsweetened beverage tax and changes in prices and purchases of sugar-sweetened beverages: An observational study in an urban environment. *PLoS medicine*, 15(7), e1002597.
- Popkin, B. M., & Hawkes, C. (2016). Sweetening of the global diet, particularly beverages: patterns, trends, and policy responses. *The Lancet Diabetes & Endocrinology*, 4(2), 174-186.
- Epel, E. S., Hartman, A., Jacobs, L. M., Leung, C., Cohn, M. A., Jensen, L., ... & Stanhope, K. L. (2020). Association of a workplace sales ban on sugar-sweetened beverages with employee consumption of sugar-sweetened beverages and health. *JAMA Internal Medicine*, 180(1), 9-16.
- Gulbrandsen, L. H. (2005). The effectiveness of non-state governance schemes: a comparative study of forest certification in Norway and Sweden. International Environmental Agreements: *Politics, Law and Economics,* 5(2), 125-149.
- Glasbergen, P., & Schouten, G. (2015). Transformative capacities of global private sustainability standards: A reflection on scenarios in the field of agricultural commodities. *Journal of Corporate Citizenship*, (58), 85-101.
- Riisgaard, L. (2011). Towards more stringent sustainability standards? Trends in the cut flower industry. *Review of African Political Economy*, 38(129), 435-453.
- Komives, K., & Jackson, A. (2014). Introduction to voluntary sustainability standard systems. In Voluntary standard systems (pp. 3-19). *Springer*, Berlin, Heidelberg.
- Winters, P., Kuo, H. W., Niljinda, C., Chen, B., Alves-Pinto, H. N., Ongun, M., ... & Newton, P. (2015). Voluntary certification design choices influence producer participation, stakeholder acceptance, and environmental sustainability in commodity agriculture sectors in tropical forest landscapes. *Journal of Sustainable Forestry*, 34(6-7), 581-604.
- Steger, U., Ionescu-Somers, A., & Salzmann, O. (2007). The economic foundations of corporate sustainability. *Corporate Governance: The International Journal of Business in Society*, 7(2), 162-177. doi:10.1108/14720700710739804
- Smith, W. K., Nelson, E., Johnson, J. A., Polasky, S., Milder, J. C., Gerber, J. S., ... & Arbuthnot, M. (2019). Voluntary sustainability standards could significantly reduce detrimental impacts of global agriculture. *Proceedings of the National Academy of Sciences*, 116(6), 2130-2137.
- Guthman, J. (2007). The Polanyian way? Voluntary food labels as neoliberal governance. *Antipode*, 39(3), 456-478.

- Raynolds, L. T., Murray, D., & Heller, A. (2007). Regulating sustainability in the coffee sector: A comparative analysis of third-party environmental and social certification initiatives. *Agriculture* and human values, 24(2), 147-163.
- Derkx, B., & Glasbergen, P. (2014). Elaborating global private meta-governance: An inventory in the realm of voluntary sustainability standards. *Global Environmental Change*, 27, 41-50.
- Fairtrade Canada. (n.d.). About Fairtrade. Retrieved June 11, 2020, from https://fairtrade.ca/en-CA/About-Fairtrade.
- Raynolds, L. T. (2000). Re-embedding global agriculture: The international organic and fair trade movements. *Agriculture and human values*, *17*(3), 297-309.
- Globe Scan. (2019, April 06). Fairtrade for Ethical Consumer Choice: GlobeScan Insight. Retrieved June 11, 2020, from https://globescan.com/high-trust-and-global-recognition-makes-fairtrade-an-enabler-of-ethical-consumer-choice/.
- The Canadian Fairtrade Network (CFTN). (2018, November 29). Fair Trade Town Program. Retrieved July 08, 2020, from http://cftn.ca/fair-trade-town-program.
- Suzianti, A., Atthousi, H. N., Pratama, I. B., & Hasyati, Z. (2018, June). Implementing fairtrade requirements for ensuring the supply chain sustainability: A case study of South Halmahera agricultural products. In *AIP Conference Proceedings* (Vol. 1977, No. 1, p. 020016). AIP Publishing LLC.
- Haight, C. (2011). The Problem With Fair Trade Coffee (SSIR). Retrieved July 11, 2020, from https://ssir.org/articles/entry/the_problem_with_fair_trade_coffee.
- Rainforest Alliance. (n.d.). About the Rainforest Alliance. Retrieved July 09, 2020, from https://www.rainforest-alliance.org/about.
- Ochieng, B. O., Hughey, K. F., & Bigsby, H. (2013). Rainforest Alliance Certification of Kenyan tea farms: a contribution to sustainability or tokenism? *Journal of cleaner production*, *39*, 285-293.
- Ocean Wise. (n.d.). Who We Are. Retrieved June 11, 2020, from https://seafood.ocean.org/about-oceanwise/who-we-are/.
- Dolmage, K. M., Macfarlane, V., & Alley, J. (2016). Understanding sustainable seafood consumption behavior: An examination of the Ocean Wise (OW) initiative in British Columbia. *Ecology and Society*, 21(2). doi:10.5751/es-08491-210226

8.0. APPENDICES

Appendix 1: Common certifications, ecolabels, and voluntary standards

Name	Sector/Industry	Purpose/Work	Country	Management
Fairtrade	Agriculture, Food, Cosmetics/person al care, Textile	Fairtrade is a certification program that works with farmers and workers to ensure justice and sustainable development in trade. It offers farmers and workers better trading options and gives consumers the opportunity to help reduce poverty and unfairness in international trade.	73 countries	Fairtrade Labelling Organizations International
Ocean Wise	Fish/Fisheries, Food	Ocean Wise works with restaurants and markets, to ensure that they have the most current scientific information regarding seafood and helping them make ocean- friendly buying decisions.	Canada	Vancouver Aquarium
Rainforest Alliance	Food, Forest products/ Paper, Beverages (e.g. tea, coffee)	Rainforest Alliance ensures that a product comes from a farm or forest operation that meets comprehensive standards that protect the environment and promote the rights and well-being of workers, their families, and communities.	23 countries	The Rainforest Alliance
Marine Stewardship Council	Fish/Fisheries, Food	Marine Stewardship Council uses ecolabelling and fishery certification program to contribute to the health of the world's oceans by recognizing and rewarding sustainable fishing practices, influencing the choices people make when buying seafood and working with partners to transform the seafood industry.	62 countries	Marine Stewardship Council
Afrisco Certified Organic	Agriculture/ Food products	Afrisco is the organic production standards and certification body for South Africa.	South Africa	Ecocert-Afrisco (Pty) Ltd
BCI Better Cotton Initiative	Textiles	The Better Cotton Initiative (BCI) promotes a comprehensive set of production principles and criteria for growing cotton in a more sustainable manner: socially, environmentally, and economically	Global	Better Cotton Initiative

Bio Suisse	Fish/Fisheries, Food	The Bio Suisse label indicates fully organic products, produced in Switzerland. More than 90% of Bio Suisse's raw materials come from Switzerland.	2 countries	Bio Suisse
BMP Certified Cotton	Textiles	BMP is the Australian cotton industry's guide for growing cotton in harmony with our natural environment. It is a consumer guarantee that the branded textile product they are buying is made of Australian cotton grown under Best Management Practices by growers who care for our environment.	Australia	Cotton Australia
CarbonFree ® Certified Carbonfree 	Environment, Textiles, Building products, Electrons,	A CarbonFree product certification label is aimed at increasing awareness of product emissions and recognizing companies that are compensating for their carbon footprint.	Australia, Brazil, Canada, United States	Carbon Fund Foundation
Green Table	Food	Green Table Network is a Vancouver-based growing group of leading restaurant professionals, joined by the people who supply and support them. Its members make a conscious commitment to a shared goal: a deliciously sustainable future.	Canada	Green Table Network Society
Migros ECO	Textiles	Label for textiles that guarantees that no substance likely to cause allergies or irritation, or to be harmful to the environment has been used throughout the manufacturing chain. It also attests to environmental preservation and workforce health and safety.	Switzerlan d	Migros
Passivhaus	Construction, Building products	PassivHaus is a certification for super-energy efficient buildings meeting the code developed by the PassivHaus Institute in Germany, and administered in Canada, Germany, UK and US.	22 countries	Passivhaus Institut
Planet Positive	Environment, Carbon	Planet Positive certifies businesses, products, events or people who are committed to taking positive action by either donating to community projects, or offsetting into verified carbon projects.	United Kingdom	Planet Positive

Area	Criteria	
Wellness Leadership and	Department leadership sets examples and social norms that foster a healthy workplace culture.	
Organizational Support		
Department Managers and	Managers and supervisors create a healthy work environment, support staff in achieving and maintaining healthier	
Supervisors	lifestyles, and address workplace health and safety issues.	
Department Culture	Individuals are supported to make healthy choices within an environment that values, provides, and promotes options that are supportive of health and well-being for everyone.	
Equity and Inclusion	A healthy department should embrace as a core value a diverse and equitable community that fosters creativity, innovation, and space for inclusiveness.	
Stress Management and	Department culture fosters social connection and support in the workplace and promotes healthy work/life principles and	
Emotional Health	resources.	
The Built Environment	The physical workplace provides accessible infrastructure in support of healthy eating, active commuting, exercising and emotional well-being in the workplace.	
Ergonomics	Employees are able to work safely by adhering to the recommended ergonomic guidelines for computer and non-computer users.	
Food Environment	The department culture ensures healthy food options are included during meetings, potlucks, and celebrations.	
Physical Activity	Department culture supports various opportunities for faculty/staff to be physically active and take movement breaks throughout the day	
Safety	A healthy department should provide a safe workplace that prioritizes emergency preparedness and a hazard-free work environment in support of the health and well-being of faculty/staff	

Appendix 2: University of Berkeley's Healthy Workplace criteria for Healthy Department certification

<u>Appendix 3</u>: Source and type of reviewed literature

Source	Туре
How standards compete: comparative impact of coffee certification schemes in Northern Nicaragua: (Ruben and Zuniga, 2011)	Academic
Global sustainability standards and food security: Exploring unintended effects of voluntary certification in palm oil: (Oosterveer et al., 2014)	
Private voluntary standards in the food system: The perspective of major food retailers in OECD countries: (Fulponi, 2006)	Academic
Sustainability criteria: their indicators, control, and monitoring (with examples from the biofuel sector): (Pavlovskaia, 2014)	
The rise of private food quality and safety standards: illustrations from Brazil: (Reardon & Farina,2001)	Academic
Global supermarkets' corporate social responsibility commitments to public health: A content analysis: (Pulker et al., 2018)	
Assessing the health impact of transnational corporations: a case study on McDonald's Australia: (Anaf et a., 2017)	Academic
Developing sustainable food supply chains: (Smith, 2008)	Academic

Sustainable Consumption and Production: A Handbook for Policymakers:	Policy
https://sustainabledevelopment.un.org/content/documents/1951Sustainable%20Consumption.pdf	document
Advanced policy options to regulate sugar-sweetened beverages to support public health: (Pomeranz, 2012).	Academic
Healthy Eating Guidelines for Beverage Sales in Schools: https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-	Government
grade-12/healthyschools/2013_food_guidelines.pdf	guidelines
The food industry and self-regulation: standards to promote success and to avoid public health failures: (Sharma et al., 2010)	Academic
In Mexico, evidence of sustained consumer response two years after implementing a sugar-sweetened beverage tax (Colchero et al., 2017)	Academic
Taxation as prevention and as a treatment for obesity: the case of sugar-sweetened beverages: (Novak & Brownell, 2011).	Academic
Mexico attempts to tackle obesity: the process, results, push backs and future challenges: (Barquera et al., 2013)	Academic
Chile's 2014 sugar-sweetened beverage tax and changes in prices and purchases of sugar-sweetened beverages: An observational study in an urban environment: (Caro et al., 2018)	Academic
Sweetening of the global diet, particularly beverages: patterns, trends, and policy responses: (Popkin & Hawkes ,2016)	Academic
Association of a Workplace Sales Ban on Sugar-Sweetened Beverages With Employee Consumption of Sugar-Sweetened Beverages and Health: (Epel et al., 2019)	Academic
The effectiveness of non-state governance schemes: a comparative study of forest certification in Norway and Sweden. (Gulbrandsen, 2005).	Academic
Transformative capacities of global private sustainability standards: A reflection on scenarios in the field of agricultural commodities: (Glasbergen & Schouten, 2015).	Academic
Towards more stringent sustainability standards? Trends in the cut flower industry: (Riisgaard, 2011).	Academic
Introduction to voluntary sustainability standard systems. In Voluntary standard systems: (Komives & Jackson, 2014)	Academic
Voluntary certification design choices influence producer participation, stakeholder acceptance, and environmental sustainability in commodity agriculture sectors in tropical forest landscapes: (Winters et al., 2015)	Academic
The economic foundations of corporate sustainability (Steger et al., 2007)	Academic
Voluntary sustainability standards could significantly reduce detrimental impacts of global agriculture: (Smith et al., 2019)	Academic
The Polanyian way? Voluntary food labels as neoliberal governance: (Guthman, 2007)	Academic
Regulating sustainability in the coffee sector: A comparative analysis of third-party environmental and social certification initiatives: (Raynolds et al., 2007)	Academic
Elaborating global private meta-governance: An inventory in the realm of voluntary sustainability standards (Derkx & Glasbergen, 2014).	Academic