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Livestock Farming Act and WTO Compliance Preferential Tariff Treatment Based on PPMs: A Case Study

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1. Introduction: A hypothetical approach

In this paper we examine the policy space that Switzerland enjoys in establishing more sustainable trade relations as part of a “just” transition to sustainable food systems. We consider a hypothetical law that raises theoretical legal problems in respect of both trade restrictions and trade preferences, namely the “Livestock Farming Act” (hereafter, “the LFA”, or “the Act”). The Act sets an example for a law informed by concerns about a “just” transition towards sustainable food systems while minimizing risks of WTO litigation. The use of a hypothetical legal problem scenario makes it possible to gain in-depth, practical knowledge of substantive WTO issues in context, by applying legal rules and principles to fictional but plausible situations. The analysis proceeds as follows. Section 2 presents the hypothetical Act. The Act, although hypothetical, is presented in some detail, with a view to providing a template for possible legislation in this issue area. The Act is inspired by policy debates currently taking place in Switzerland and Europe. Section 3 clarifies the trade interests at stake, rooting the legal analysis in the commercial reality of trade flows. Section 4 explains the main provisions of the Act in trade policy terms, bridging with the legal analysis. Section 5 assesses the (hypothetical) WTO consistency of the Act, in light of the evolving jurisprudence on trade and environment. The analysis considers key constraints under the General Agreement on Tariffs and Trade (GATT) 1994, the Agreement on Technical Barriers to Trade (TBT Agreement) and the Agreement on Agriculture (AoA). Section 6 concludes by emphasizing design features of the Act and implementation practices that would matter the most in averting a trade dispute.

The paper was prepared under two research projects: the “Just Food” project, which explores how just transitions towards sustainable, fair, and healthy food systems can be achieved, and project “Sustainable Trade Relations for Diversified Food Systems”, which seeks ways of granting tariff preferences for sustainably produced food in a non-discriminatory and balanced way.¹

¹ “Just transition: Tackling inequalities on the way to a sustainable, healthy and climate-neutral food system (JUST-FOOD)” of the Strategic Research Council of Finland, financed by the Academy of Finland and led by Dr. Minna Kaljonen, Finnish Environment Institute: <https://justfood.fi/>; and project “Sustainable Trade Relations for Diversified Food Systems”, financed by the Swiss National Science Foundation (SNF), as part of the National Research Programme 73 on “Sustainable Economy”, and led by Dr. iur. Elisabeth Bürgi Bonanomi of CDE, University of Bern: <http://www.nrp73.ch/en/projects/governance/sustainable-trade-relations-for-diversified-food-systems>. The analysis builds on and feeds into the research project “BIO-TRADE – Protecting biodiversity through regulating trade and international business”, funded under the joint BiodivRestore call by BiodivERsA and Water JPI (with support from the Swiss National Science Foundation SNSF). The authors thank the reviewers participating in the Legal Advisory Workshop on PPMs for Sustainable Food Trade & WTO law, held at CDE on 6 September 2022, under SNSF NRP73 project, for their insightful comments and suggestions. They are thankful to Anu Lannen for editing the paper.

2. The Livestock Farming Act

In our hypothetical scenario, the Swiss Parliament has passed a new law, the LFA, which promotes livestock practices respectful of animal welfare, setting a roadmap out of intensive, large-scale livestock farming. The Act is an integral part of a system-level low-carbon transition towards “just food” systems. By favouring less-intensive farming systems with reduced livestock density, the Act contributes towards Switzerland’s 2030 emissions reduction goal under the CO2 Act.² The Act supports agroecology practices as a pathway to sustainability in livestock farming (Gliessman 2011; FAO 2018; IPES-Food 2022). In the aftermath of the Covid pandemic, it promotes animal welfare and contributes to preventing zoonotic diseases, while endorsing healthy dietary patterns that reduce the risk of diet-related chronic diseases. The standard-setting process for the hypothetical Act was participatory, with equal respect granted to a plurality of values and practices. Further, the lawmakers included provisions to address the distributive implications of the reform – i.e. who benefits and who suffers from the transition – with due attention given to people’s diverse needs and vulnerabilities. Finally, the law recognizes the context-specificity of animal welfare practices and gives distant actors in faraway places a say in shaping compliance with Swiss standards in ways that preserve specific local agroecological conditions.

2.1. Key provisions

2.1.1. Internal measures

The Livestock Farming Act regulates livestock farming practices in Switzerland by setting requirements in respect of access to outdoors, stable housing, breeding, grazing and feeding systems, transport and slaughtering, as well as animal densities. While requirements in respect of outdoor exercise, husbandry systems, etc. reflect animal welfare concerns, restrictions on livestock density aim primarily at easing the pressure of livestock farming on the environment.

With regard to animal welfare requirements, the Act makes mandatory in Switzerland the housing and access to outdoor conditions defined in two official animal welfare programmes: the “Particularly Animal-Friendly Stabling” scheme (SST) and the “Regular Outdoor Exercise for Livestock” scheme (SRPA).³ Additional sustainability requirements in respect of breeding, feeding, reproductive practices, transport, and slaughtering were validated by a collaborative multi-stakeholder network engaging groups from industry, animal welfare organizations, research, and government sectors, as discussed in section 2.4.1.

The Act density requirements set limits on the commercial stock of animals in Switzerland. They do so by limiting the number of agricultural holdings with animals, as well as the number of livestock units per farm in absolute terms and per hectare of utilized agricultural area. The Act requirements are set by major livestock type and validated by the multi-stakeholder network.

The Act provides for the phased-in implementation of the criteria over 30 years, with accompanying support measures for producers and consumers to ease adjustment costs and make the transition socially acceptable.

2.1.2. Border measures

The Act includes border measures necessary for its enforcement.

Meat is currently imported into Switzerland under a tariff-quota regime implemented through sub-quotas for different categories of meat and meat products, with a high level of tariff protection for out-of-quota meat and preferential in-quota tariffs.

² Federal Act on the Reduction of CO2 Emissions (CO2 Act) of 23 December 2011 (SR 641.71).

³ Since 1 January 2014, the requirements of the two ethological programmes are included in the Ordinance on Direct Payments in Agriculture (*Ordonnance sur les paiements directs*, OPD) of 23 October 2013 (RS 910.13).

The Act sets new eligibility criteria for the in-quota import of meat, stating that only “sustainably produced” meat is eligible for in-quota import. In practice, in order to be eligible for the tariff quota, meat shipments shall carry one of the following attesting documents as proof of sustainability: a certificate of origin from countries with animal welfare standards assessed as “equivalent” to the Swiss ones; a document attesting that the meat originates from validated sourcing areas under sustainable management; a chain-of-custody certificate from an accredited private sustainability scheme. For operational purposes, the Swiss Federal Department of Economic Affairs, Education and Research (EAER) maintains a list of countries with animal welfare programmes equivalent to those operating in Switzerland; a list of “validated” sourcing areas under integrated landscape management, with their recognized attesting bodies; and a list of accredited private initiatives.

A key issue is the trustworthiness of such sustainability proofs and conformity assessment procedures, which raises the question of the sustainability criteria and metrics used, and their effective implementation in practice. Accredited private schemes, in particular, should address sustainability objectives that are relevant to local communities, reflecting the particular environmental and development context to which they apply, rather than consumer-driven perceptions or protectionist interests of the importing country (Franc 2022). These concerns are met by means of an inclusive standard-setting process anchored in local contextual knowledge, and by favouring trust-based conformity assessment procedures in the context of bottom-up trust-based schemes and integrated sustainable landscape initiatives – moving beyond more traditional top-down administrative schemes. The approach is discussed in section 2.4.3 below (Box 1 and Box 2). The EAER lists of equivalent countries, validated areas, and certified private schemes are regularly updated and reflect the outcome of such an inclusive and locally adapted assessment process.

“Certified” imports (from listed countries, “validated” landscapes, or under accredited private schemes) are permitted entry at the in-quota tariff rates until such time as the tariff quota is filled, then the higher out-of-quota tariff automatically applies (“first come, first served” basis). Non-certified products (all the other meat) can no longer be imported into Switzerland in-quota and face a prohibitive out-of-quota tariff rate. Further, out-of-quota imports from intensive livestock farming must be labelled “meat from intensive production systems”, and the labelling requirements apply to the final consumer in retail trade and in take-away outlets/restaurants.

As discussed in section 2.4 below, the Act takes full account of the variety of circumstances that exist around the world and favours equivalence and mutual recognition of standards over harmonization.

2.2. Sectoral scope

The hypothetical Livestock Farming Act covers all commercially relevant meat sectors in Switzerland – cattle, pigs, poultry, sheep and goats, equidae, as well as wildlife species like deer and bison. On the import side, it covers fresh, chilled, and frozen meats of all species (chapter 2 of the Harmonized System) and cured meat.⁴ It also affects imported eggs.⁵ It does not extend further downstream to processed foods containing meat because of traceability issues.

2.3. Stated objectives and legal foundations

The Act’s stated objectives are to promote animal welfare, mitigate climate change and other environmental impacts, and support a healthy diet. The three sets of objectives are mutually supportive and interrelated.

⁴ The following items are covered: charcuterie meat like ham or viande séchée (meat salted, in brine, dried or smoked, under subheading 0210 HS), sausages products like cotechini, mortadella, salami (subheading 1601), and other prepared or preserved meat products like tinned meat (falling under subheading 1602).

⁵ Subheading 0407 HS.

The Act reflects ethical concerns about animal welfare. The aim is to protect the dignity and welfare of animals, a constitutionally enshrined objective⁶ that informs Switzerland's animal welfare legislation.⁷ The Act endorses the guiding principles on animal welfare set by the World Organization for Animal Health (WOAH) by referring to the five freedoms enshrined in the WOAH Terrestrial Animal Health Code (hereafter, the "five freedoms").⁸

By differentiating in favour of less-intensive farming systems with reduced livestock density, the Act contributes to mitigating climate change, while meeting other sustainability challenges like biodiversity protection, water quality, and nutrient management. In Switzerland and elsewhere, livestock is the main agricultural source of greenhouse gases (GHG).⁹ Reduced animal production is viewed as the main systemic lever for reducing the negative environmental effects of agriculture (Mann 2021). The stated aim of the Act in this area is to reduce GHG emissions and in particular emissions that are attributable to agriculture, in line with the CO₂ Act.¹⁰ Key requirements in this respect are the limits the Act sets on livestock density and size.¹¹ Moving beyond the GHG-emission dimension, the Act entails a structural shift towards diversified agroecological production systems that mitigate the adverse environmental impacts of industrial livestock farming, including biodiversity loss, chemical pollution, and land degradation (IPES-Food 2022). In particular, it favours a livestock production model including extensive Alpine pastures, contributing to the preservation of cultural landscapes with high floristic and biodiversity quality in the Alps (see also section 2.4.2).

Animal welfare and environmental concerns are holistically considered with human well-being. The Swiss population eats three times more meat than necessary (Federal Department of Home Affairs 2017), resulting in a protein-based diet that favours such diseases as cardiovascular disorders, diabetes, and cancer (Mathijis 2015; Feskens et al. 2013; Chao et al. 2005). Through reduced meat supply and higher prices, the Act creates the incentives needed to opt for a more diversified and healthy diet, in line with the objectives of the Swiss Nutrition Policy (Federal Department of Home Affairs 2017).

The sustainability goals pursued by the Act are firmly embedded in the Swiss legal framework. At the domestic level, the Act builds on the constitutionally-enshrined obligation to protect the environment (Article 74 of the Federal Constitution) and animal welfare (Articles 80, paragraphs 1 and 2, and 120, paragraph 2). Its trade provisions implement the constitutional obligation to promote "cross-border trade relations that contribute to the sustainable development of the agriculture and food sector" (Article 104a). As mentioned, the Act links to other relevant legal texts and programmes on animal welfare¹² and climate change.¹³ It reflects the priorities and strategy of the Federal Council's

⁶ Articles 80, paragraphs 1 and 2, and 120, paragraph 2 of the Federal Constitution (SR 101).

⁷ Animal Welfare Act (AniWA) of 16 December 2005 (SR 455) and the Animal Protection Ordinance (AniPO) of 23 April 2008 (455.1).

⁸ Namely: freedom from hunger, malnutrition and thirst; freedom from fear and distress; freedom from heat stress or physical discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behaviour. Paraphrasing the WOAH Terrestrial Code, the Act considers an animal in a good state of welfare if "it is healthy, comfortable, well nourished, safe, able to express innate behaviour, and if it is not suffering from unpleasant states such as pain, fear, and distress" (WOAH 2022, chapter 7.1).

⁹ Agriculture contributes 12.4 percent of total anthropogenic GHG emissions in Switzerland. The main agricultural sources of GHGs were methane (CH₄) emissions from enteric fermentation (56 percent, mainly from ruminants). See Agroscope, Swiss Agricultural Greenhouse Gas Inventory <https://www.agroscope.admin.ch/agroscope/en/home/topics/environment-resources/climate-air-quality/treibhausgas-emissionen/swiss-national-greenhouse-gas-inventory-agriculture.html> (accessed 5 October 2022).

¹⁰ Federal Act on the Reduction of CO₂ Emissions (CO₂ Act) of 23 December 2011 (SR 641.71).

¹¹ As discussed in section 2.1.1, the Act sets limits on the number of farms with animals, as well as on the number of animals per farm (in absolute terms and per hectare of utilized agricultural land).

¹² Including the Animal Welfare Act and its implementing ordinance (SR 455 and 455.1) and the ethological programmes embedded in the Swiss Ordinance on Direct Payments in Agriculture (910.13).

¹³ Federal Act on the Reduction of CO₂ Emissions (CO₂ Act) of 23 December 2011 (SR 641.71).

sustainability policy (Federal Council 2021) in three priority themes: more sustainable consumption and production patterns; climate, energy, and biodiversity; and social cohesion. It is consistent with and builds on other programmatic frameworks, including the Swiss Nutrition Policy 2017–2024 (Federal Department of Home Affairs 2017). The Act also reflects Switzerland’s sustainability obligations and commitments under international law. It contributes to Switzerland’s climate policies and commitments under the Paris Agreement, and counts towards Sustainable Development Goals (SDGs) 12 and 13, which underscore sustainable and climate change-resilient food production systems. It echoes Principle 8 of the Rio Declaration on Environment and Development (1992) and other principles of international environmental law relating to the sustainable use of natural resources.

2.4. “Just” transition concerns

The Act seeks to accommodate “justice” questions that stand at the core of systems-level transitions to more sustainable food systems (Tribaldos and Kortetmäki 2022). “Just” transition concerns framed the law-making process, as detailed below.

2.4.1. The standard-setting process in Switzerland

As mentioned, the law-making process in Switzerland set up inclusive standard-setting procedures. The animal welfare requirements were set within the framework of a collaborative multi-stakeholder network engaging groups from industry, animal welfare organizations, research, and government sectors. The network appointed a technical taskforce composed of farmers, veterinarians, ecologists, rural economists, and animal protectionists in charge of screening and reconciling the specifications set in diverse private standards and labels, including BioSuisse, Demeter, Natura-Beef, IP-Suisse, and others. Agreement was reached on the assumption that increased costs for farmers would be offset by sustained or higher meat prices and income support, and that the reform would tackle domestic production and trade simultaneously.

2.4.2. Support measures for a “just” transition

The Act provides for the phased-in implementation of the criteria over 30 years, with accompanying support measures for farmers and consumers.

It provides support for farmers through transition payments to fund investment in animal-friendly husbandry systems, as well as direct payments that compensate farmers for delivering ecological services. Note that Alpine farms do not face major adjustment challenges as they comply by default with most of the Act requirements. By sustaining meat prices at a profitable level for peasant and Alpine farmers, the Act levels the playing field between industrial livestock production and Alpine pastoralism, allowing small/Alpine farmers to achieve fairer market prices.

The Act results in reduced meat supplies and increased meat prices domestically. Higher food prices disproportionately hit the most vulnerable, who spend a higher share of their income on basic necessities. A “just” and socially acceptable transition requires income support on the consumption end. Under the Act, such support is triggered by meat price increases above specified threshold levels. When the threshold is reached, Swiss residents eligible for insurance premium subsidies are entitled to monthly food coupons to pay for food at defined local outlets, including farm markets.

2.4.3. Equivalence assessment and third-party accreditation

The Act takes full account of the variety of circumstances that exist around the world and favours equivalence of standards and regulations over harmonization. The concept of equivalence implies acceptance of different standards or regulations if they adequately fulfil the same objectives. In other words, a country can specify different requirements than those defined in the Livestock Farming Act if they have comparable outcomes in terms of the objectives pursued.

The Act defines the broad outline of the equivalence assessment process based on international guidelines (WTO TBT Agreement;¹⁴ Codex Alimentarius;¹⁵ FAO et al. 2012). It explicitly refers to thematic and regional networks that build consensus on the path towards livestock sustainability.¹⁶ Linking with key elements of the revised model Trade & Sustainability chapter in the EFTA Agreements, the Act emphasizes the importance of transformative dialogue and exchanges of information and best practices on animal welfare and sustainability.¹⁷

Box 1: The Act equivalence assessment process

The equivalence assessment scenario envisaged by the Act is *bilateral or multilateral*, rather than unilateral: in our fictional case, Switzerland proactively engages with all its trade partners to assess their interest in seeking equivalence determination, bilaterally, or in a multilateral setting.

The base standard that forms the basis of the equivalence assessment process is the Swiss regulation, which is benchmarked against the WOAH “five freedoms” (see above, section 2.3 and footnote 8). Dissimilar standard and regulations are considered equivalent to the Swiss ones if they adequately fulfil the same objectives. In order to favour the equivalence assessment, Switzerland has prepared a paraphrased and consolidated version of its animal welfare requirements that *emphasize outcomes rather than prescriptive details*.

Variations in foreign requirements are accepted if based on listed criteria, including: climatic, geographical and other structural conditions; religious and cultural values; considerations of practical feasibility; technical endowments and economic/regulatory constraints. Variations in requirements are accepted based on guidance from networks and initiatives that catalyse coherent and collective practice change towards sustainable livestock farming through dialogue, consultation, and joint analysis.¹⁸

Switzerland has incorporated the *transparency* processes of the TBT Agreement,¹⁹ including early notice and consultations, into the regulatory lifecycle of the Act. It provided “early notice” in the preparation process, notifying concerned members, through the WTO Secretariat, of the proposed measures. It established a dedicated contact point and solicited comments on the proposed conformity assessment procedures. It has promptly published its regulations.

Moving a step further in the direction of context-specific solutions, the Act promotes agroecological principles and practices endorsed by the FAO and the Committee on World Food Security and Nutrition (FAO 2018b; HLPE 2019). It promotes a standard-setting process anchored in contextual knowledge, combining social, biological and agricultural sciences with traditional and local knowledge and community-based innovations. In this direction, the Act explicitly endorses *Participatory Guarantee System* (PGS) initiatives²⁰ as an alternative and complementary tool to third-party certification. Further,

¹⁴ WTO TBT Agreement (articles 2.4 and 2.7) & Annex 3: Code of Good Practice for the Preparation, Adoption and Application of Standards, https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm#annexIII (accessed 5 October 2022).

¹⁵ CAC/GL 34 Guidelines for the Development of Equivalence Agreements Regarding Food Import and Export Inspection and Certification Systems, <https://www.fao.org/3/X4489E/x4489e04.htm> (accessed 5 October 2022).

¹⁶ See, e.g. the Global Agenda for Sustainable Livestock (GASL), as well as dialogue on sustainable meat and livestock production within the FAO (<https://www.fao.org/agroecology/database/detail/en/c/1411710/>) and UNECE (https://unece.org/sites/default/files/2022-09/UNECE_Seminar_Sustainability-Meat-programme_5.pdf) (accessed 5 October 2022).

¹⁷ The chapters on Trade and Sustainability enshrined in the EFTA Agreements provide for structured dialogue and exchange of best practices conducive to sustainability.

¹⁸ See above, n 16 and 17.

¹⁹ The Code of Good Practice for the Preparation, Adoption and Application of Standards in Annex 3 to TBT Agreement.

²⁰ See, e.g. IFOAM-supported PGS, <https://www.ifoam.bio/our-work/how/standards-certification/participatory-guarantee-systems> (accessed 5 October 2022). For an assessment, Jacobi et al. 2022.

it promotes *integrated “landscape”* approaches²¹ that certify entire sourcing areas as sustainable through multi-stakeholder compacts involving administrations, private actors and communities (Box 2).

In setting up certification and compliance-assessment procedures, the Act builds on participatory and adaptive land management initiatives that already exist in source countries, to the extent that they explicitly seek ecological and social sustainability objectives. Where credible tangible structures do not exist, the Act spearheads their development. To this end, Switzerland would set up a dedicated technical assistance programme, the hypothetical Swiss Programme on Landscapes, for the recognition of standards set within “integrated landscape” frameworks and to support the emergence of such initiatives (Box 2). The programme will enhance the capacity of developing-country producers and traders to comply with import requirements, but in line with local conditions. It aims at easing one major challenge on the implementation side, which relates to the certification of foreign products and equivalence recognition.

To sum up, the sustainability requirements set by the Act are not coercive on other countries, but flexibly designed to consider different situations in different countries. The standard-setting process is localized, context-sensitive, enabling variations in sustainability requirements based on legitimate socio-ecological criteria. As discussed in section 5, these flexibilities are key to prove the WTO consistency of the Act. There is a fine line to draw here: sustainability requirements should be flexible enough to be non-discriminatory under WTO law, but strict enough to be efficient in terms of their sustainability outputs.

Box 2: Integrated landscape approaches

The hypothetical Swiss Programme on Landscapes provides support for highly participatory and adaptive land management initiatives that explicitly seek ecological and social sustainability objectives. It is open to NGOs, central/local governments or international organizations that implement “integrated landscape” approaches.

The term “landscape” defines a region or extent of territory within a country or straddling across countries, with discrete natural and cultural dimensions. An “integrated landscape initiative” is a “project, program, platform, initiative, or set of activities” that: (1) explicitly seeks to improve food production, biodiversity or ecosystem conservation, and rural livelihoods; (2) works at a landscape scale and includes deliberate planning, policy, management, or support activities at this scale; (3) involves intersectoral coordination or alignment of activities, policies, or investments at the level of ministries, local government entities, farmer and community organizations, NGOs, donors, and/or the private sector; and (4) is highly participatory, supporting adaptive, collaborative management within a social learning framework” (Milder et al. 2014; Freeman et al. 2015).

For operational purposes, an accreditation unit is set up within the Swiss administration. The local landscape scheme is accredited if it meets the criteria that define integrated landscape approaches (see above). The entity managing the initiative is then accredited to issue certificates of origin, which serve as attesting documents for in-quota imports to Switzerland.

3. Trade interests at stake

As mentioned, imports of meat to Switzerland are quantitatively restricted by tariff quotas provided for in Switzerland’s Schedule of commitments.²² The tariff quota permits imports under one tariff rate up to a specified amount; any additional (out-of-quota) quantity of the product can still be imported,

²¹ See, e.g. the action-driven coalitions promoted by the Sustainable Trade Initiative, <https://www.idhsustainabletrade.com/landscapes/> (accessed 5 October 2022).

²² The tariff quotas are set out in Part I, Section I-B of Switzerland’s Schedule of commitments (Liste LIX - SUISSE – LIECHTENSTEIN). Domestically, they are provided for and maintained under the following instruments: Ordonnance sur les importations agricoles (RS 916.01); Ordonnance sur le libre-échange 1 (S 632.421.0); Ordonnance sur le libre-échange 2 (RS 632.319). In respect of its scheduled tariff quotas, Switzerland is subject to notification obligations regarding the tariff quota administration arrangements (Table MA:1 notifications) as well as in-quota imports in respect of scheduled tariff quota products (Table MA:2 notifications).

but at a higher, in most cases prohibitive, tariff rate.²³ Both in-quota and out of quota tariffs are bound in Switzerland's Schedule of commitments, which also records preferential in-quota rates set under preferential tariff regimes.²⁴

The Swiss tariff quota system has effectively safeguarded self-sufficiency in animal products in Switzerland.²⁵ Domestic production covers most of the market needs: for beef, Switzerland has a self-sufficiency ratio of more than 80 percent; for pork, the self-sufficiency ratio is above 90 percent (Loi et al. 2016). Overall in 2016, Switzerland produced 86 percent of the meat it consumed (Swissinfo 2018).

Meat imports complement domestic supply when necessary, and essentially serve to stabilize domestic demand and prices. They are low in volume and value terms, serving a fraction (less than 15 percent) of the consumption needs of a small population (8.5 million people – by comparison, Tokyo has over 37 million inhabitants). Overall, Switzerland accounts for only around 0.5 percent of meat imports worldwide.²⁶

In terms of trade partners, European countries, and especially eurozone countries, remain Switzerland's most significant import markets. Germany, France, and Ireland were Switzerland's largest trading partners for meat imports in 2019, accounting for approximately 34 percent of Swiss meat imports in value terms.²⁷

A few developing countries are also significant meat exporters to Switzerland: Brazil, Argentina, Uruguay, and Paraguay. In 2019, they accounted for 15 percent of Switzerland's meat imports in value terms.²⁸ Their importance varies by product category, as detailed in Table 1. In 2019 for example, Uruguay, Paraguay, and Argentina were the largest developing country exporters of beef to Switzerland, while Brazil was by far the largest supplier of poultry meat. For these countries, Switzerland is a small, but not insignificant export market. In 2019, Swiss beef imports absorbed 1 percent of Argentina's worldwide beef exports, 2 percent of Paraguay's beef exports, and 5 percent of beef exports from Uruguay.²⁹

In light of the above analysis, the Act is likely to have only a marginal effect on existing meat trade volumes in aggregate terms. It does not raise major trade concerns in terms of direct trade effects, since meat exports to Switzerland, for most countries, are small or non-existent. Furthermore, the Act will neither decrease nor increase the predetermined quantity of meat that can be imported into Switzerland at lower import duty rates – i.e. its scheduled tariff rate quota volumes. Thus, overall meat trade to Switzerland will neither increase (the Swiss meat tariff quotas are already filled at 100 percent), nor decrease as a consequence of the Act.

²³ In some detail, the Swiss meat tariff quota regime is implemented through sub-quotas for different categories of meat and meat products. For example, imports of beef products occur within the tariff quota n.05, which is further subdivided into various sub-quotas for specific beef products. For pork, in-quota imports occur under tariff quota n. 06, shared with poultry meat and sub-divided into several sub-quotas. The two tariff quotas are opened by the Swiss Federal Office for Agriculture (FOAG) at the request of Proviande, the trade association of the Swiss meat industry, based on market needs. The predominant allocation methods have changed over time, including “first come, first served”, auctioning, and domestic purchase requirements. See Loi et al. 2016.

²⁴ Preferential in-duty rates are set by Switzerland under the Generalized System of Preferences (GSP) scheme, the Least Developed Countries (LDC) schemes, the Zone–zone preferences (EU) scheme, and Free-trade agreements. Under these arrangements, Switzerland provides either preferential in-quota rates within its MFN tariff quotas or specific bilateral tariff quotas (WTO 2017). LDCs benefit from duty-free and quota-free treatment.

²⁵ The degree of self-sufficiency is captured by the ratio of domestic production to total domestic consumption.

²⁶ Calculations based on UN Comtrade (Trade Value (USD), HS (as reported) 02 “Meat and edible meat offal”, imports). Data retrieved on 10/Mar./2021.

²⁷ Calculations based on UN Comtrade (Trade Value (USD), sum of HS codes 0201, 0202, 0203, 0204, 0205, 0206, 0207, 0208, 0209, 0210). Data retrieved on 04/Mar./2021. HS as reported.

²⁸ Calculations based on UN Comtrade (Trade Value (USD), sum of HS codes 0201, 0202, 0203, 0204, 0205, 0206, 0207, 0208, 0209, 0210). Data retrieved on 04/03/2021. HS as reported.

²⁹ Calculations based on UN Comtrade (HS 0201 Meat of bovine animals; fresh or chilled, Trade Value (USD), year 2019). Data retrieved on 04/Mar./2021. HS as reported.

However, the Act may have discernible trade effects in terms of the type of meat imported into Switzerland, since only “sustainably” produced meat will be eligible for in-quota import. Under the Act, trade in sustainably produced meat will likely expand, while “conventional” meat flows will contract. In other words, there will be no increase or decrease in the meat trade to Switzerland, but a change in its composition in favour of “sustainably” produced meat.

Such discrete impacts on specific market segments matter, in trade policy terms. Indeed, from a trade law perspective, other aspects matter, beyond direct impacts on trade volumes. Relevant trade concerns include potential export interests and possible suppression of growth of trade, as well as the need to protect expectations regarding the competitive position of similar products in the marketplace. In these respects, the Act could spearhead major shifts in the meat industry, with vast trade implications for large meat exporters. Accordingly, the Act would likely trigger an intensive response of Switzerland’s trading partners, given the systemic relevance of trade in agricultural products and the interest of Switzerland’s trading partners to import more to the Swiss market. As discussed in the following analyses, in order to mitigate the risk of trade disputes, Switzerland would need to proactively engage in negotiations with all potentially affected trading partners with a view to establishing equivalence arrangements. The extension of technical and financial assistance to developing countries would also ease concerns about the restrictive impacts of the Act.

Table 1. Main meat importers to Switzerland, by product category

0201 - Meat of bovine animals; fresh or chilled				0206 - Edible offal of bovine animals, swine, sheep, goats, horses, asses, mules or hinnies; fresh, chilled or frozen			
Rank	Country	Value	%	Rank	Country	Value	%
1	Ireland	45,835,934	25%	1	Germany	397,276	24%
2	Germany	21,230,089	12%	2	France	301,814	18%
3	Australia	21,183,166	11%	3	Netherlands	283,204	17%
4	Uruguay	17,433,192	9%	4	Italy	201,945	12%
5	Austria	16,537,785	9%	5	Belgium	132,839	8%
6	USA	13,596,810	7%	6	Austria	87,430	5%
7	Paraguay	13,117,752	7%	7	USA	62,619	4%
8	Argentina	9,094,915	5%	8	Ireland	56,578	3%
9	United Kingdom	4,192,992	2%	9	Spain	40,112	2%
10	France	4,051,805	2%	10	Poland	30,469	2%
		184,207,486	90%			1,643,970	97%
0202 - Meat of bovine animals; frozen				0207 - Meat and edible offal of poultry; of the poultry of heading no. 0105, (i.e. fowls of the species Gallus domesticus), fresh, chilled or frozen			
Rank	Country	Value	%	Rank	Country	Value	%
1	Austria	4,641,101	50%	1	Brazil	47,439,689	24%
2	Germany	2,153,926	23%	2	France	43,514,902	22%
3	Brazil	414,209	4%	3	Germany	37,729,095	19%
4	Paraguay	362,969	4%	4	Hungary	31,416,817	16%
5	Poland	331,416	4%	5	Slovenia	11,392,515	6%
6	Netherlands	261,683	3%	6	Austria	5,126,781	3%
7	Ireland	237,486	3%	7	Poland	4,885,336	3%
8	USA	222,959	2%	8	Thailand	2,935,189	2%
9	Uruguay	179,266	2%	9	Netherlands	2,575,547	1%
10	France	143,743	2%	10	Italy	2,337,803	1%
		9,296,547	96%			194,095,772	98%
0203 - Meat of swine; fresh, chilled or frozen				0208 - Meat and edible meat offal, n.e.c. in chapter 2; fresh, chilled or frozen			
Rank	Country	Value	%	Rank	Country	Value	%
1	Germany	18,624,955	64%	1	Austria	11,958,877	23%
2	Austria	6,271,087	21%	2	Germany	7,881,269	15%
3	Portugal	1,391,543	5%	3	Slovenia	7,485,252	15%
4	Spain	1,136,144	4%	4	New Zealand	5,924,691	12%
5	France	783,295	3%	5	Hungary	4,586,905	9%
6	Slovenia	669,836	2%	6	France	3,659,216	7%
7	Czechia	110,370	0%	7	Czechia	2,566,708	5%
8	Italy	108,287	0%	8	Netherlands	1,735,492	3%
9	Netherlands	103,482	0%	9	Spain	1,108,592	2%
10	Hungary	81,638	0%	10	South Africa	982,949	2%
		29,330,322	100%			51,127,601	94%
0204 - Meat of sheep or goats; fresh, chilled or frozen				0209 - Pig fat, free of lean meat, and poultry fat, not rendered or otherwise extracted, fresh, chilled, frozen, salted, in brine, dried or smoked			
Rank	Country	Value	%	Rank	Country	Value	%
1	New Zealand	31,242,933	34%	1	Italy	55,007	63%
2	Australia	27,539,235	30%	2	France	13,998	16%
3	Ireland	13,472,331	15%	3	Germany	11,312	13%
4	United Kingdom	11,843,947	13%	4	Hungary	3,706	4%
5	France	4,177,561	5%	5	Portugal	1,960	2%
6	Netherlands	2,523,817	3%	6	Bulgaria	938	1%
7	Germany	717,349	1%	7	Poland	523	1%
8	Hungary	311,500	0%	8	Spain	285	0%
9	Italy	208,883	0%	9	Romania	132	0%
10	Spain	198,323	0%	10	Czechia	68	0%
		92,449,417	100%			87,997	100%
0205 - Meat; of horses, asses, mules or hinnies, fresh, chilled or frozen				0210 - Meat and edible meat offal; salted, in brine, dried or smoked; edible flours and meals of meat or meat offal			
Rank	Country	Value	%	Rank	Country	Value	%
1	Canada	6,796,024	22%	1	Italy	40,770,485	65%
2	Argentina	6,258,739	20%	2	Germany	6,525,752	10%
3	Spain	6,172,459	20%	3	Spain	5,796,143	9%
4	France	3,324,567	11%	4	France	4,063,327	7%
5	Italy	1,986,623	6%	5	Austria	3,099,835	5%
6	Uruguay	1,643,899	5%	6	Netherlands	1,396,007	2%
7	Australia	1,512,285	5%	7	Portugal	336,461	1%
8	Belgium	1,184,221	4%	8	Sweden	150,575	0%
9	Ireland	873,460	3%	9	United Kingdom	35,406	0%
10	Iceland	494,799	2%	10	Brazil	29,759	0%
		30,736,456	98%			62,263,571	100%

Source: Data retrieved on 2 Mar. 2020 from the United Nations Comtrade Database - International Trade Statistics - Import/Export Data. Processed by the authors. Year 2019; Customs Proc. Code C00 All CPCs; Mode of Transport Code 0 All MOTs; Classification Harmonized Commodity Description and Coding Systems (HS), as reported.

4. Measures at issue and legal bases for the complaint

When assessing the WTO consistency of the Act, it is important to single out what are the specific measures at issue from a trade policy angle. The following analysis translates the requirements of the Act in trade policy terms and provides a snapshot of the WTO provisions that may be triggered.

4.1. The measures at issue

In WTO terms, the Act and its implementing ordonnances lay down *regulations, standards, and compliance assessment procedures* in relation to livestock farming. In some detail:

The Act and its implementing ordonnances regulate meat products in terms of how live animals are farmed. Specifically, the regulations set “sustainability” requirements for livestock farming in Switzerland in respect of access to outdoors, grazing and feeding, animal rearing densities, husbandry systems, and transport/slaughtering conditions. Compliance is mandatory in Switzerland. They are *technical regulations* within the meaning of Annex 1.1 of the TBT Agreement: Terms and definitions. They also come under scrutiny as *internal, non-fiscal, regulations* under Article III:4 of the GATT 1994: National treatment on internal taxation and regulation.

The Act regulations on livestock farming in Switzerland reflect stringent guidelines related to farm animal welfare, including the BioSuisse Standards, as validated by a collaborative multi-stakeholder network engaging groups from the industry, animal welfare organizations, research, and government sectors. These underlying guidelines are *standards* within the meaning of Annex 1.2 of the TBT Agreement: Terms and definitions.

Further, the Act and its implementing ordonnances specify the procedures and assessment tools for determining equivalence of domestic and foreign standards and for the accreditation of third-party schemes. They include procedures for evaluation, verification, and assurance of conformity, as well as registration, accreditation, and approval. They are *conformity assessment procedures* (CAPs) and *technical regulations* (which also cover related administrative provisions) within the meaning of Annex 1.3 of the TBT Agreement: Terms and definitions. They come under GATT scrutiny as *internal regulations*.

Finally, the Act establishes criteria for the *labelling* of meat products as “non-sustainable”. It provides that out-of-quota imports of meat produced in a manner prohibited in Switzerland must be labelled as such, once cleared at customs. Such labelling requirements apply to the final consumer in retail trade and in takeaway outlets/restaurants. They are *technical regulations* within the meaning of Annex 1.1 of the TBT Agreement: Terms and definitions and *internal regulations* under Article III:4 of the GATT 1994: National treatment on internal taxation and regulation.

At the border, the Livestock Act sets new *eligibility criteria and conditions for in-quota import* of meat (see above, section 2.1.2). In GATT terms, such requirements and operational arrangements result in specific *tariff quota administration methods*. Specifically, the eligibility requirements for in-quota imports result in *additional conditions linked to the administration of the tariff quota* – requiring the submission of a certificate of origin from a listed country or a validated sourcing area, or, alternatively, a chain-of-custody certificate from an accredited scheme. Overall, such arrangements may come under scrutiny as *quantitative import restrictions* under either the GATT and/or the AoA.

Table 2: Measures at issue

Measures	Type of measure and relevant Agreement	
New eligibility requirements for in-quota imports (submission of a certificate of origin from listed country/“validated” sourcing areas or a “chain of custody” certificate from accredited scheme)	Border measure	Tariff quota administration methods (additional conditions linked to the administration of tariff quotas) (GATT) Non-tariff measures (AoA)
Mandatory requirements regarding livestock farming conditions	Internal regulations	Technical regulations (TBT) / Internal measures (GATT)
Labelling requirements	Internal regulations	Technical regulations (TBT) / Internal measures (GATT)
Underlying animal welfare standards (non-mandatory)	Internal regulations	Standards (TBT)
Procedures and assessment tools for determining equivalence of domestic and foreign standard	Internal regulations	Technical regulations and compliance assessment procedures (TBT)/ Internal measures (GATT)

Box 3. Technical regulations, standards, and conformity assessment procedures under the TBT Agreement

Term	Definition
Standards	Documents approved by a recognized body establishing rules, guidelines, or characteristics for products or related processes and production methods. Compliance is not mandatory. They may also deal with terminology, symbols, packaging, or labelling requirements.
Technical regulations	Regulations which lay down product characteristics or their related processes and production methods, including the applicable administrative provisions. Compliance is mandatory. They may also deal exclusively with terminology, symbols, packaging, or labelling requirements.
Conformity Assessment	Procedures to determine that relevant requirements are fulfilled. They include procedures for sampling, testing, and inspection; evaluation, verification, and assurance of conformity; and registration, accreditation, and approval.
Equivalence	The acceptance that different standards or technical regulations on the same subject fulfil common objectives.

Source: TBT Agreement, Annex 1 and FAO et al. (2012).

4.2. Legal bases for the complaint in respect of the measures

The measures at issue (see previous section) may have an impact upon both import opportunities (Articles II: Schedules of concessions and XI: General elimination of quantitative restrictions of the GATT 1994) and the competitive conditions of imported products on the internal market (Article III of the GATT 1994: National treatment on internal taxation and regulation). Different aspects of the same measure may be covered by different Agreements, and by different provisions of the covered Agreements (the GATT 1994, the TBT Agreement and the AoA), as detailed below.

Measure	Possible legal bases for the complaint	
GATT 1994		
New eligibility requirements for in-quota imports	Prohibited import restrictions?	Article XI:1
Eligibility requirements and quota allocation methods	Introduce conditions not recorded in Switzerland's Schedule of commitments?	Article II:1(a)
	Inconsistent with the obligations to administer tariff quotas on a transparent, predictable, and fair basis?	Article XIII
	Administered in a manner that is not uniform, impartial and/or reasonable?	Article X:3(a)
	Discriminate between meat of different foreign origin?	Articles I:1, XIII:1 and XIII:2(c)
Labelling requirements for non-certified (out of quota) meat	Discriminated against imported meat?	Article III:1 and 4
	Discriminate between meat products from third parties?	Article I:1
TBT Agreement		
Labelling requirements and eligibility requirements for in-quota imports	Unjustifiably discriminate between foreign products, by favouring meat imports of one member over those of another based on PPMs? Have a detrimental impact on the competitive conditions in the Swiss market of imported meat compared to domestic meat, based on PPMs?	Article 2.1 (technical regulations) Annex 3.D (standards) Article 5.1.1 (CAPs)
	Unnecessarily trade restrictive?	Articles 2.2 (technical regulations) Paragraph E of Annex 3, "substantive provisions" (Standards) Article 5.1.2 (CAPs)
	Not in accordance with relevant international standards and based on abstract and unsubstantiated risk concepts?	Article 2.4
Agreement on Agriculture		
New eligibility requirements for in-quota imports and quota allocation methods	Introduce new agriculture-specific non-tariff measures, not scheduled?	Article 4(2)

5. Hypothetical legal reasoning

How would a Panel argue on the case? This section presents some lines of legal reasoning for deciding the case, drawing from the WTO adjudicator's reasoning in past cases. It submits narrowly functional readings of WTO law alongside more "systemic" interpretive approaches that give more weight to sustainability concerns.³⁰ The analysis considers key constraints imposed by the GATT, the TBT Agreement and the AoA, in turn. It concludes by offering some thoughts on how to construe and interpret the Livestock Farming Act in a manner consistent with WTO law.

Three important caveats are in order, before proceeding with the analysis.

First, it is important to note, this is a speculative exercise: in a real case, the outcome of the dispute would be affected by the specific details of the arguments advanced by the parties to the dispute.³¹ Note also that the order of the analysis would likely be reversed: regarding technical regulations or agriculture-specific measures, a Panel would first start with the most specific and detailed agreement (the TBT and the AoA), and then move on to the GATT 1994, following guidance from relevant cases.³² The Panel would exercise judicial economy on the complainants' claims under the GATT 1994 where appropriate.

Second, in a related vein, the speculative nature of the inquiry limits the reach and level of ambition of the analysis. Note, in this respect, that most environmental measures challenged in the WTO context passed on principle, but failed on details, and eventually needed amendment. The devil will always be in the details of specific regulations, which poses limits to the reach of our hypothetical inquiry. Indeed, hypothetical legal reasoning is based on fictional legislation, which means that the details are not available yet. Hence, our analysis is limited to whether the concepts and ideas pursued by our hypothetical Act are in principle compatible with WTO law, while pointing to critical interpretative areas where difficulties may arise in practice.³³

Third, in respect of a number of thorny issues, we will present alternate lines of legal reasoning, contrasting narrowly functional and textualist readings of WTO rules with more "systemic" understandings of WTO law informed by "sustainability" concerns. Such "systemic" reading of WTO law, it should be stressed, does not amount to a form of political interpretation of the law. It is a legal reasoning technique required by law. Under WTO law, the WTO adjudicator is required to interpret

³⁰ "Systemic law interpretation" implies open-textured rules interpreted systematically by reference to other legal regimes relevant in the context (Bürgi Bonanomi 2015b, 29; 2015a, 161–164). Systemic lawmaking requires "lawmaking procedures that are shaped by the "duty to include", the "duty to structure and weigh", and the "duty to develop optimal options" (Bürgi Bonanomi 2015b, 29). It follows well established principles of coherent interpretation and harmonization (Study Group of the International Law Commission 2006, paras. 37–43 and 410–423; Bürgi Bonanomi 2015a, p. 161–162), whereby "any relevant rules of international law applicable in the relations between the parties" shall be taken into account while interpreting a treaty (Art. 13(3)(c) Vienna Convention on the Law of Treaties). The quest is for regulatory coherence and convergence, beyond legal fragmentation (Study Group of the International Law Commission 2006; Pauwelyn 2003; Cottier et al. 2011; Bürgi Bonanomi 2015a).

³¹ By its terms of reference, a panel can only address those claims that are specifically set out in a member's panel request.

³² *EC – Bananas III*, AB report, para. 204 (GATT 1994 and the Licensing Agreement); *EC – Sardines*, panel report, paras. 7.15–7.16, *EC – Asbestos*, panel report, paras. 8.16–8.17, *EC – Seal Products*, panel report, para. 7.66 (GATT 1994 and the TBT Agreement). See also the panel reports *US – Clove Cigarettes*, *US – Tuna II (Mexico)* and *US – COOL*: all three panels addressed non-discrimination claims under the TBT Agreement first, exercising judicial economy under the GATT 1994.

³³ Our hypothetical exercise implies the illusion of some "purity of intent" by the legislator, while in practice regulatory schemes always depend on political acceptability and would not be enacted at all without political compromise. As discussed in Mass 1996, the issue would then be whether considerations of political feasibility could fit within the Article XX GATT definition of "necessary".

WTO provisions in accordance with the customary rules of interpretation of public international law.³⁴ According to such rules, the WTO adjudicator, in interpreting WTO law, shall take into account any other relevant rules of international law applicable in the relations between the parties.³⁵ As explicitly acknowledged by the Appellate Body (*US – Gasoline, US – Shrimp*), WTO rules are not “not to be read in clinical isolation from public international law”.³⁶ Most importantly, the objective of sustainable development, as also enshrined in the Preamble to the WTO Agreement,³⁷ “must add colour, texture and shading” to the interpretation of WTO law.³⁸ This means that the WTO adjudicator, in carrying out its interpretative function, shall always try to reconcile trade and non-trade concerns, by contextualizing WTO law in an overall normative context that is informed by sustainability concerns (Study Group of the International Law Commission 2006).

5.1. Constraints under the GATT 1994

The measures at issue (see section 4.1 above) regulate the way meat products are produced (OECD 1997 and Charnovitz 2002). They are trade measures linked to processes and production methods (PPMs). Since they do not necessarily reflect the physical quality of the products, they are defined as non-product-related PPMs, or npr-PPMs.

To some extent, the measures concerned have extraterritorial effect, since livestock farmers abroad may be forced to change their practices if they want to access the Swiss market. Note however that this is a common feature in the food trade: all countries set public health and animal health requirements that must be satisfied by third countries exporting foodstuffs to their market. Further, as discussed, Switzerland does not require that foreign countries adopt Switzerland’s technical regulations and standards as a condition for market access. Instead, it sets procedures for the equivalence of foreign standards and for third-party accreditation, considering relevant international standards.

With the above in mind, the paramount question, before we turn to a more technical analysis, is: Are npr-PPMs (with extraterritorial effects) permissible under the GATT? The views expressed by the GATT/WTO adjudicative bodies and scholars as regards the WTO admissibility of npr-PPMs have evolved significantly over time.

As extensively discussed in Sifonios (2018) and summarized in Cottier et al. (2013), early scholarly views were framed under the “product-process” doctrine, whereby regulatory distinctions between products based on characteristics unrelated to the product were *a priori* illegal (for a review, Jackson 1992; Hudec 1998; Quick and Lau 2003; Eaton, Bourgeois and Achterbosch 2005; Conrad 2011; Cottier 2015). Under such an approach, regulatory distinctions between meat products based on farming practices that do not affect the physical characteristics of the products would not be permissible under the GATT. The approach moves from the determination of “likeness” according to which products that share the same physical characteristics, end-uses, tariff classification, and consumer preferences are “like” products and must not be discriminated with respect to tariffs, taxes, and other measures.³⁹ The

³⁴ Article 3.2 of the *Understanding on rules and procedures governing the settlement of disputes* (hereafter, Dispute Settlement Understanding, or DSU), Annex 2 of the WTO Agreement.

³⁵ Article 31 (3) (c) of the Vienna Convention on the Law of Treaties, or VCLT. However, the WO adjudicator has never found that non-WTO rules would override substantive rights or obligations under the covered agreements of the WTO. Note in this respect the express prohibition, enshrined in the Understanding on rules and procedures governing the settlement of disputes (DSU), according to which the “[r]ecommendations and rulings of the DSB cannot add to or diminish the rights and obligations provided in the covered agreements” (DSU 3:2 in fine).

³⁶ *US – Gasoline*, AB Report, p. 17, DSR 1996:I, p. 3 at 16.

³⁷ The Marrakesh Agreement Establishing the World Trade Organization (the “WTO Agreement”).

³⁸ *US – Shrimp*, AB Report, para. 153. In the *Shrimp – Turtle* case, the Appellate Body made extensive reference to international environmental law texts in assessing the scope of the terms “natural resources” and “exhaustible”, endorsing an “evolutionary” interpretation of WTO law.

³⁹ *Japan – Alcoholic Beverages II*, AB report, p. 114; *EC – Asbestos*, AB report, para. 101.

non-admissibility of PPMs was stated in a number of GATT cases,⁴⁰ largely out of concerns about the “extraterritorial” nature of PPMs.⁴¹

However, the perception of npr-PPMs has evolved since the late 1990s (Sifonios and Ziegler 2020, pp. 119–127; Cottier et al. 2013, pp. 12-13): the WTO adjudicative bodies have developed more flexible and complex views on the acceptability of PPMs unrelated to product characteristics. In the wake of the *US – Shrimp* case, (otherwise) GATT inconsistent PPMs might be justified under GATT Article XX: General exceptions, if they meet the conditions for justification (see below, section 5.1.3).⁴² The key issue is not the PPM-character of the measure, but whether or not the measure is unduly discriminatory or protectionist (Cottier et al. 2013, p. 13; Bernasconi-Osterwalder et al. 2006, pp. 205-218; Sifonios 2018).

Based on the above discussion, restrictions in the Swiss market on imported meat based on animal welfare standards and other sustainability criteria are not *a priori* illegal under WTO law. In principle, following the Appellate Body’s reasoning in *Shrimp–Turtle*, they will pass on principle, if certain conditions are fulfilled. The key issue is not the PPM-character of the measure at stake. What matters is that such measures comply with GATT rules. They must not amount to import restrictions nor discriminate against imported products or among foreign products. If restrictive or discriminatory, they must meet the requirements for justification as permissible exceptions under GATT Article XX: General exceptions.⁴³

That said, the core legal issues that may emerge in a panel investigation are discussed below.

5.1.1. Internal regulations or quantitative restrictions?

As discussed (section 2.1.2), the Act sets new eligibility criteria and allocation principles for in-quota import of meat: in order to be eligible for the tariff quota, shipments shall carry a certificate of origin from a listed “equivalent” country or “validated” sourcing area or, alternatively, a chain of custody certificate from an accredited scheme. Questions arise as to the nature of such requirements. Do they constitute quantitative restriction on imports (regulated by GATT Article XI:1: General elimination of quantitative restrictions) *or* do they simply enforce at the border internal regulations (covered by the Note Ad Article III of the GATT)? If they amount to quantitative restrictions, they are banned by Article XI GATT unless covered by a specific or general GATT exception. They are *a priori* illegal, even if non-discriminatory. Exceptions would need to be sought under Article XX. If instead the measures at issue constitute the border enforcement of domestic regulations, they are covered by the Note Ad Article III of the GATT and are dealt with under GATT Article III: National treatment on internal taxation and regulation. A panel would then look at whether or not the measure discriminates against imports. If the requirements are transparently set and non-discriminatory, they are in principle GATT consistent. If the measures are found to be discriminatory or protectionist, they violate GATT Article III: National treatment on internal taxation and regulation, even if justification could still be sought under GATT Article XX: General exceptions.

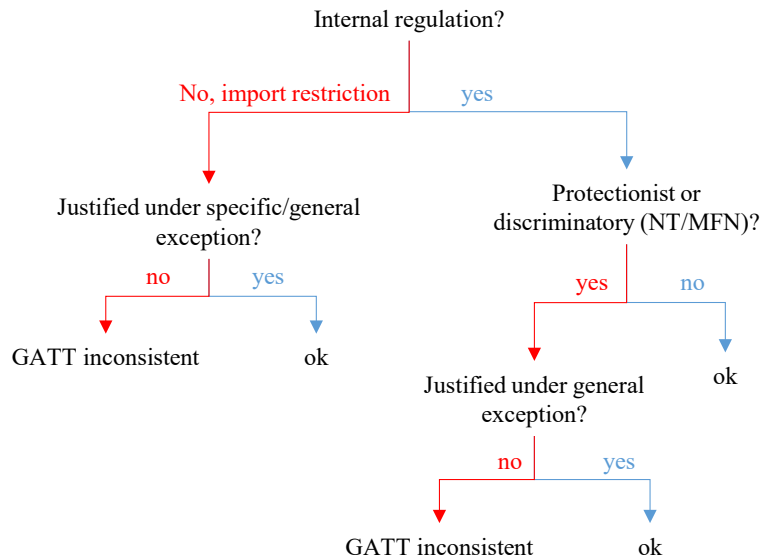
Figure 1. PPMs under the GATT

⁴⁰ The non-admissibility of regulatory distinctions based on characteristics unrelated to the product is supported by two early GATT panels: See *US – Tuna (Mexico)*, GATT panel report (unadopted), para. 5.14 and *Mexico–Taxes on Soft Drinks*, panel report, paras. 8.42–45.

⁴¹ Developing countries were particularly reluctant to accept the legality of npr-PPM, out of concern that they would be forced to invest in costly changes to their production and processing methods in order to get access to foreign markets.

⁴² *US – Shrimp*, AB report, para. 121.

⁴³ Note that measures inconsistent with basic non-discrimination obligations of the GATT (Articles I or III) can still be justified under Article XX, which prevents abuse/misuse of discrimination, in the form of “arbitrary or unjustifiable discrimination between countries where the same conditions prevail”.



Based on past jurisprudence, it could be argued in both directions, as discussed below.

5.1.1.1. Quantitative restrictions

The new in-quota import requirements and allocation principles place limiting conditions on import of non-certified meat. In this respect, they affect the opportunities for importation and generate a disincentive to import from countries not meeting certain conditions. From this point of view, they can be considered import “restrictions”, maintained in contravention of Article XI: 1 of the GATT 1994: General elimination of quantitative restrictions. This line of reasoning finds support in some GATT/WTO cases, e.g. the 1991 and 1994 (unadopted) *Tuna–Dolphin* cases⁴⁴ and, more recently, *US – Shrimp*.⁴⁵

It is important to note that the notion of trade “restriction” under Article XI is broad, covering “situations where products are technically allowed into the market . . . , but are only allowed under certain conditions which make the importation more onerous” (*India – Quantitative Restrictions*).⁴⁶ As stated by the Appellate Body in *Argentina – Import Measures*, “not every condition or burden placed on importation or exportation will be inconsistent with Article XI, but only those that are limiting, that is, those that limit the importation or exportation of products”.⁴⁷ Based on past jurisprudence, it would not be necessary to quantify the limiting effect of the measure at issue, which could be inferred from the

⁴⁴ The *Tuna – Dolphin* (1991) GATT panel examined the provisions of the US Marine Mammal Protection Act on harvesting of tuna. The regulations required that, as a condition of access to the US market for yellowfin tuna, each country of registry of vessels fishing yellowfin tuna in the Eastern Tropical Pacific (ETP) Ocean had to prove that its overall regulatory regime regarding the taking of marine mammals was comparable to that of the US. The requirement was met if the country in question proved that the average rate of incidental taking of marine mammals by its tuna fleet operating in the ETP did not exceed 1.25 times the average incidental taking rate of US vessels operating in the ETP during the same period. The Panel found that these measures did not constitute internal regulations covered by the Note Ad Article III but quantitative restrictions on imports forbidden by Article XI:1.

⁴⁵ *US – Shrimp*, panel report, para. 7.16. In *US – Shrimp*, the measure at issue was an US import ban of shrimp and shrimp products from non-certified countries. These were countries that did not used a certain type of net in catching shrimp. The Panel found that the US prohibition on imported shrimp and shrimp products violated Art. XI. Note that the United States had not put forward any defending arguments in this regard.

⁴⁶ *India – Quantitative Restrictions*, panel report, para. 5.129.

⁴⁷ *Argentina – Import Measures*, AB report, para. 5.217.

“design, architecture, and revealing structure of the measure”.⁴⁸ Yet, the measure must have some limiting effect on the quantity imported.

Box 4. Permitted exception under Article XI:2(c)?

Following the logic above, the new eligibility requirements and allocation principles for in-quota imports would be considered “restrictions” banned under GATT Article XI. Their legality would depend upon the exceptions in Article XX GATT, as discussed in section 5.1.3.

However, the question might arise on whether the new in-quota import requirements can be exceptionally permitted under Article XI:2(c). Article XI:2(c) allows import restrictions of agricultural products if necessary to enforce a domestic supply management scheme. This basically implies that *if* the Act is intended to manage the supply of domestic meat in Switzerland, and *if* the import requirements are necessary to enforce the supply management scheme, the import restrictions are permissible.⁴⁹

In our view, if the Act is clearly designed and implemented domestically as a meat supply management scheme, its import measures could be justified under the specific exception set in GATT Article XI:2(c). They would meet the stringent criteria set in Article XI:(c).⁵⁰ In particular, the import restrictions would occur with supply restrictions in Switzerland (even-handed requirement). They would be necessary to enforce the domestic supply scheme, which would be frustrated by uncontrolled meat imports (necessity). Finally, the measure would not reduce the proportion of meat imports relative to domestic production (proportionality test): as discussed, the domestic supply scheme would reduce domestic livestock (and meat) supply below the level it would otherwise attain, while leaving import volumes unaltered. This means that the share of (sustainable) import would increase in domestic meat consumption.

5.1.1.2. Internal regulations applied to imported products

A panel may take a different line of reasoning, focusing on other aspects of the challenged measure: The measures at issue are not import restrictions in the sense of Article XI: General elimination of quantitative restrictions, but internal regulations covered by the Note Ad Article III. The panel may base its reasoning on various premises, as briefly presented below.

Based on the Appellate Body’s reasoning in *Japan – Alcoholic beverages*,⁵¹ PPM measures are covered by Article III insofar as they affect the internal sale of products in the importing state’s market (Sifonios and Ziegler 2020, p. 120). If one focuses on the “permissive” side of the Act, the new eligibility requirements for in-quota imports define conditions under which a product may be imported and marketed in the Swiss market on preferential terms. From this point of view, the tariff quota is not an import restriction, but a trade liberalization instrument.

It can also be maintained that, based on GATT jurisprudence and practice, a scheduled tariff quota is not, as such, inconsistent with Article XI: General elimination of quantitative restrictions.⁵² The tariff quota implements Switzerland’s commitment to open its market, under certain conditions, to a fixed quantity of goods at a reduced rate of duty.

Finally, drawing from *Argentina – Import Measures* and other relevant cases, a panel may uphold the argument that not every condition placed on imports falls under the scope of Article XI: General

⁴⁸ *Argentina – Import Measures*, AB report, para. 5.217 (referring to *China – Raw Materials*, AB report, paras. 319-320). See also *EC – Seal Products*, AB report, para. 5.82; *EU – Energy Package*, panel report, paras. 7.974-7.975.

⁴⁹ More precisely, they are exempted from the Article XI:1 prohibition.

⁵⁰ To be specifically exempted under Article XI:2(c), the import restrictions must be implemented in conjunction with a domestic marketing/production restriction (even-handedness requirement), must be necessary to the enforcement of the domestic supply restriction (necessity), and must not reduce the proportion of imports relative to domestic production (proportionality test). On the elements and burden of proof regarding claims under paragraph 2(c) and 2(c)(i), see, e.g. *Canada – Ice Cream and Yoghurt*, GATT Panel Report, para. 62, and *EEC – Dessert Apples*, GATT Panel Report, para. 12.3.

⁵¹ *Japan – Alcoholic Beverages II*, AB Report, p. 16.

⁵² See the discussion of import licensing and tariff quotas in the unadopted 1994 GATT panel report on *EEC – Bananas*, para. 140.

elimination of quantitative restrictions, but only those that are limiting, that is, those that limit the importation.⁵³ By its design and in terms of trade effects, the Act will not have a limiting effect on imports insofar as sustainably produced meat is concerned. By constraining domestic meat supply, the Act will likely expand the share of (sustainable) meat imports in domestic consumption.

Based on this logic, a panel may find that the import restrictions amount to internal regulations covered by the Note Ad Article III. They would then be GATT-consistent if non-discriminatory and neutral as regards the origin of products (see below section 5.1.2).

5.1.1.3. Both

Finally, it may be argued that different aspects of the same measure are covered by different provisions of the GATT, following the logic of the panel in *India – Autos*.⁵⁴ The new eligibility requirements and allocation principles for in-quota imports of meat may have an impact on the importation of certain meat, triggering Article XI: General elimination of quantitative restrictions. At the same time, they may affect the competitive conditions of imported products in the internal market, which is dealt with under GATT Article III: National treatment on internal taxation and regulation. Accordingly, the same measure may be assessed under varying provisions, but in respect of different facts. However, for reasons of judicial economy, once the Panel finds a violation of Article XI: General elimination of quantitative restrictions, it may abstain from assessing the complainants' non-discrimination claims under Article III: National treatment on internal taxation and regulation.

5.1.2. Non-discrimination of imported products and the issue of “likenesses”

The trade measures at issue, including labelling and in-quota import requirements, are subject to the non-discrimination rules of the GATT, i.e. the most favoured nation (MFN) and the national treatment (NT) principles. This basically implies that the sustainability requirements envisaged by the Act should apply to the sale of meat imported from all countries (MFN principle), and also to the meat produced in Switzerland (NT rule). In other words, Switzerland cannot discriminate between domestic and imported meat (NT rule) and between foreign meats in respect of origin (MFN rule). The non-discrimination obligations concern the requirements set, as well as the way they are administered. The relevant rules are set forth in Article I:1 of the GATT 1994 (MFN principle), Article III:1 and 4 (NT), and Article XIII:1 and XIII:2(c) (MFN – tariff quotas).

While at first sight the Swiss sustainability requirements are origin-neutral, in that they equally apply to domestic production and to imports from all countries, they might still raise non-discrimination issues in different respects. They are briefly discussed below in respect of NT and MFN aspects. The analysis first considers possible discrimination in respect of certified meat, domestic, and imported (NT, section 5.1.2.1), and of different foreign origin (MFN, section 5.1.2.2). It then moves on to the broader question of whether certified and non-certified meat are “like” products in respect of which no regulatory distinction is allowed for NT and MFN purposes (section 5.1.2.3).

5.1.2.1. NT: “Sustainable” meat of domestic and foreign origin

As described in section 2.1, the hypothetical LFA more heavily hits domestic than imported products. Domestically, the Act sets stringent animal welfare and density requirements that are incompatible with intensive, large-scale livestock farming. At the border, the Act does not enforce an import ban on

⁵³ *Argentina – Import Measures*, AB report, para. 5.217 (referring to *China – Raw Materials*, AB report, paras. 319-320) ; *India – Autos*, panel report, paras. 7.269-7.270. See also *Dominican Republic – Import and Sale of Cigarettes*, panel report, para. 7.265.

⁵⁴ In *India – Autos*, the Panel noted that Articles III and XI of GATT 1994 have distinct scopes of application. The Panel stated that “[I]t therefore cannot be excluded a priori that different aspects of a measure may affect the competitive opportunities of imports in different ways, making them fall within the scope either of Article III (where competitive opportunities on the domestic market are affected) or of Article XI (where the opportunities for importation itself, i.e. entering the market, are affected)” (*India – Autos*, panel report, para. 7.224).

industrial meat. Meat from industrial farming could still enter Switzerland out-of-quota, at a very high tariff rate. In this respect, the Swiss regulation is even handed and does not explicitly discriminate with regard to imports. However, questions of *de facto* discrimination may still arise regarding the compliance costs involved and how they impact the competitive opportunities of imported meat. This issue is discussed below.

5.1.2.1.1. *De facto* discrimination?

It may be argued that, through the compliance costs involved, the LFA reduces the competitive opportunities of imported meat.⁵⁵ One may argue, in this respect, that Swiss producers may comply more easily with the Act sustainability requirements, which are ultimately based on a Swiss standard supported by the government.⁵⁶ Compliance costs for (unsupported) foreign producers may be higher, even if the requirements are flexibly structured to allow variations that reflect local socio-ecological conditions.

One may also consider segregation needs in those (foreign) production systems that allow intensive livestock farming, which leads to even higher compliance costs. Foreign meat from sustainable sources would need to be segregated from industrial meat throughout the livestock and meat supply chain, in order to be imported to Switzerland. Swiss meat would not need to be segregated, since all the meat produced in Switzerland will be sustainably farmed by default, given the prohibition of large-scale industrial farming.

5.1.2.1.2. Counterarguments

However, the above considerations would not be conclusive in a non-discrimination case, if we consider the part of the GATT non-discrimination analysis conducted under GATT Art. XX. As discussed in section 5.1.3 (Justification under GATT Art. XX), the key issue in assessing factual discrimination of PPMs is that sustainability requirements are not coercive on other countries, but flexibly designed to consider different situations in different countries. This is the case with our hypothetical Act, which is highly deferential to local sustainability initiatives and context-specific settings. Cooperation and technical assistance are also important. While this an issue for consideration under GATT Art. XX (General Exceptions), rather than Art. I:1 (MFN), it is part of the overall non-discrimination analysis under the GATT.⁵⁷

Further, based on an *obiter dictum* in the *Asbestos* dispute, some authors question whether there can be violations of the NT rule without an *overall* protective effect for the national industry (cf. Ehring 2001 and Lester and Leitner 2001).⁵⁸ This would invite consideration of the overall trade impacts of the

⁵⁵ The issue of compliance costs figures prominently in a TBT case, the *US – COOL* case. The case concerned United States' country of origin labelling (COOL) requirements for beef and pork. In the case, the Appellate Body concluded that the COOL labelling requirements modified the conditions of competition in the US market to the detriment of imported livestock by creating an incentive in favour of processing exclusively domestic livestock and a disincentive against handling imported livestock (*US – COOL*, AB report, para. 292). Though the Appellate Body's analysis referred to TBT Art. 2.1 (national treatment–technical regulations), it is relevant in the GATT context also.

⁵⁶ The Swiss Government has encouraged its adoption through two official animal welfare programmes, the SST and SRPA, as discussed in some detail in section 2.1.1.

⁵⁷ While under the TBT Agreement all non-discrimination analyses are conducted under Article 2.1, part of the GATT non-discrimination analysis is conducted under the general exceptions provision (the chapeau of GATT Art. XX), in addition to GATT Art I and III.

⁵⁸ *EC – Asbestos*, AB report, para. 100 (notes omitted):

[...] even if two products are “like”, that does not mean that a measure is inconsistent with Article III:4. A complaining Member must still establish that the measure accords to the group of “like” imported products “less favourable treatment” than it accords to the group of “like” domestic products. The term “less favourable treatment” expresses the general principle, in Article III:1, that internal regulations “should not be applied ... so as to afford protection to domestic production”. If there is “less favourable treatment” of the group of “like” imported products, there is, conversely, “protection” of the group of “like” domestic products. However, a Member may draw distinctions between products which have been found to be “like”, without, for this reason alone, according to the group of “like” imported products “less favourable treatment” than that accorded to the group of

Act. As discussed in section 3, on the whole the Act will not have discernible trade impacts in terms of the overall amount of meat that is imported: overall meat trade to Switzerland will neither increase, nor decrease as a consequence of the Act.⁵⁹ Instead, domestic supply will contract. This means that, in relative terms, the share of imported products will expand in the domestic consumption basket. It does not seem, then, that the Act imposes a greater overall disadvantage on imports than on comparable domestic goods. Yet, the “on the whole” principle has been rejected in key cases (see, for example, *US – Section 337* and *US – Gasoline*).⁶⁰ Ultimately, the GATT non-discrimination provisions (Articles I and III) protect competitive opportunities in the marketplace and there is no need for actual trade impacts.

5.1.2.2. MFN: “Sustainable” meat of different origins

A relevant MFN question is whether the Swiss requirements treat “sustainable” meat originating from different countries in a discriminatory way. The problem arises in respect of the manner in which the in-quota import requirements are administered. As discussed, certified meat from listed countries and validated sourcing areas is eligible for in-quota imports. It accesses the Swiss market until exhaustion of the quota, on a “first come, first served” basis. Meat sourced from other countries or areas is still eligible for in-quota import on a “first come, first served” basis insofar as the meat shipment is certified as sustainable under an accredited private scheme. Are these arrangements discriminatory, taking into account the criteria set by the Appellate Body in *EC – Seal Products* and other relevant cases?⁶¹ The question here is not whether certified (sustainable) and non-certified (conventional) meat are “like” products in respect of which regulatory distinctions are not permitted – an issue discussed in section 5.1.2.3 below. Instead, the question here is whether less favourable treatment is granted to potentially sustainable meat sourced from certain WTO Members, in violation of the non-discrimination requirements of the GATT. A panel may decide in different ways, as discussed below.

5.1.2.2.1. A narrow, textual reading

Based on a narrow textual reading of GATT Article I:1: MFN principle,⁶² a Panel may find that the measures at issue do not “immediately and unconditionally” extend the same market access treatment to all products that may potentially qualify as sustainable. As a matter of fact, the operation of the Swiss scheme results in a *de facto* situation where only some sustainable meat shipments access the Swiss market on preferential (in-quota) terms. This is inherent to the operation of a limited tariff quota implemented on a “first come, first served” basis: once the quota is exhausted, sustainable meat can still enter, but under less favourable out-of-quota terms. Situations of *de facto* discrimination may also arise from the use of lists – for example, the list of countries with equivalent animal welfare programmes, the list of validated sourcing areas under accredited landscape initiatives, and the list of accredited private labels. For example, the countries that have not engaged with Switzerland in seeking

“like” *domestic* products. In this case, we do not examine further the interpretation of the term “treatment no less favourable” in Article III:4, as the Panel’s findings on this issue have not been appealed or, indeed, argued before us.

⁵⁹ Instead, the hypothetical Act would have discernible trade effects in terms of the type of meat imported into Switzerland: under the Act, trade in sustainably produced meat would likely expand, while “conventional” meat flows would contract.

⁶¹ *EC – Seal Products*, AB report, para. 5.86 (notes omitted):

⁶¹ *EC – Seal Products*, AB report, para. 5.86 (notes omitted):

[...] Based on the text of Article I:1, the following elements must be demonstrated to establish an inconsistency with that provision: (i) that the measure at issue falls within the scope of application of Article I:1; (ii) that the imported products at issue are “like” products within the meaning of Article I:1; (iii) that the measure at issue confers an “advantage, favour, privilege, or immunity” on a product originating in the territory of any country; and (iv) that the advantage so accorded is not extended “immediately” and “unconditionally” to “like” products originating in the territory of all Members. Thus, if a Member grants any advantage to any product originating in the territory of any other country, such advantage must be accorded “immediately and unconditionally” to like products originating from all other Members.

⁶² GATT Article I:1 reads in its relevant part: “... any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties”.

equivalence may argue that their meat is also “sustainable”, but discriminated against. They may also ask why certain private schemes are accredited and not others, absent internationally agreed standards. In all these respects, a panel may find that some countries are granted preferential market access, while others are not. If so, the arrangement would contravene the MFN principle in Articles I:1, XIII:1 and XIII:2(c) of the GATT 1994. A panel may also find that the eligibility criteria and allocation principles are inconsistent with the obligations to administer tariff quotas on a transparent, predictable, and fair basis, contrary to Article XIII of the GATT 1994. Further, they may be found further inconsistent with Article X:3(a) of the GATT 1994: Publication and administration of trade regulations in the event they are not administered in a manner that is uniform, impartial, and/or reasonable.

5.1.2.2.2. Counterarguments

The above reasoning is narrowly textualist. Following a different line of reasoning, we may argue that all sustainable meat could *in principle* qualify for in-quota import under the Act, which grants the same market access opportunities to all potentially qualifying exporters. The market access conditions set in the Act are *per se* origin-neutral as they refer to the type of production method, rather than to a defined origin. In addition, the Act sustainability requirements are not designed and applied such that only some countries/areas can *de facto* benefit from them. Instead, the standard-setting process established by the Act is context-sensitive, with variations in sustainability requirements based on legitimate socio-ecological criteria. Finally, the lists of eligible countries/areas Switzerland maintains are not limited or closed, but rather constantly updated. Switzerland proactively engages with all its trading partners to assess their interest in seeking equivalence of animal welfare standards; and the Swiss technical assistance framework on Landscapes (Box 2) is open to all interested public/private stakeholders that implement “integrated landscape” initiatives.

In our view, this conclusion reflects what is protected under the MFN obligation: as set by the Appellate Body in *EC – Seal Products*, Article I:1 (MFN) protects “expectations of equal competitive opportunities for like imported products from all Members”.⁶³ Such expectations are satisfied insofar as the Swiss procedures ensure that all Members have equal opportunity to sell in the Swiss market after successful completion of the procedures. The competitive advantage that must be extended “immediately” and “unconditionally” to all potentially qualifying members is not in-quota access. Instead, it lies with the fair opportunity to apply and participate in the procedure for in-quota access, without being *a priori* excluded or discriminated against.⁶⁴ This line of reasoning is corroborated by

⁶³ *EC – Seal Products*, AB report, para. 5.87 (notes omitted):

Article I:1 thus prohibits discrimination among like imported products originating in, or destined for, different countries. In so doing, Article I:1 protects expectations of equal competitive opportunities for like imported products from all Members. As stated above, it is for this reason that an inconsistency with Article I:1 is not contingent upon the actual trade effects of a measure. We consider that an interpretation of the legal standard of the obligation under Article I:1 must take into account the fundamental purpose of Article I:1, namely, to preserve the equality of competitive opportunities for like imported products from all Members.

⁶⁴ Otherwise, we would end up with a situation where the MFN obligation is construed as prohibiting a member from attaching any conditions to the granting of a competitive advantage to imported products. The MFN obligation would then turn into a market access obligation. As pointed out by the Appellate Body in *EC – Seal Products*, this is not what Article I:1 MFN prescribes. In the words of the Appellate Body, the MFN rule under GATT Article I:1 “permits regulatory distinctions to be drawn between like imported products, provided that such distinctions do not result in a detrimental impact on the competitive opportunities for like imported products from any Member” (*EC – Seal Products*, AB report, para. 5.88).

past cases – e.g. in *US – Poultry*⁶⁵ and *EC – Bananas III*.⁶⁶ It also gives expression to “systemic” objectives of coherent interpretation across provisions and treaties.

A panel may also pursue a line of reasoning that acknowledges differences between countries’ situations as part of the concept of non-discrimination. Based on this logic, the MFN rule requires that any advantage Switzerland accords to a trading partner must also be extended to all other trading partners *where the same conditions prevail*. Specific sourcing areas are validated as sustainable because of their differing conditions, which justifies differing regulatory treatment. Based on this logic, the Swiss regulations, by treating trade partners differently because of their diverse conditions, would still achieve equality. In *Canada –Wheat Exports and Grain Imports*, the Appellate Body itself suggested that countries should take account of the differing conditions of exporters:⁶⁷ comparing conditions or “situations” is part of not discriminating between foreign products. Yet this is a controversial area, as “pulling too hard on this thread could unravel the non-discrimination principle” (Lydgate 2011, p. 971). It would also duplicate the non-discrimination analysis conducted under GATT Article XX, which considers whether differences in treatment are rationally related to the different risks stemming from different factual situation (see section 5.1.3).

5.1.2.3. NT & MFN: “Sustainable” and “non-sustainable” meat

Even if the Swiss regulations are formulated as origin neutral in respect of “sustainable” meat, tensions with the MFN and NT rules might still arise. This is likely to occur if conventional and certified meat are found to be “like” products. The question here is whether two otherwise identical products, but produced according to different processes or methods, must be treated as “like” products in accordance with the non-discrimination requirements of the GATT. As discussed below, this is essentially a matter of consumer perception.

5.1.2.3.1. Relevant “likeness” factors

At this point, it is appropriate to take a step back and briefly assess how “likeness” is determined under WTO law, before turning to the circumstances specific to our hypothetical case. What factors shall be considered in deciding whether two products are “like” for purposes of the non-discrimination requirements of the GATT?

⁶⁵ *US – Poultry (China)*, panel report, paras. 7.416-7.417. Paragraph 7.416 in its relevant part reads (notes omitted):

We note that under the PPIA and the FSIS procedures, any country may request a determination of eligibility for the importation of poultry products to the United States. Once a successful determination of equivalency is made and a final rule is published in the Federal Register, countries can start exporting poultry products to the United States. Thus, successful completion of the mentioned procedures is the only way that an importer can enter the United States market for poultry products. The opportunity to sell poultry products in the United States market is therefore a very favourable market opportunity and not having such an opportunity would mean a serious competitive disadvantage, or rather would amount to an exclusion from competition in the US market. Such an opportunity would also affect the commercial relationship between products of two different origins where one of the countries of origin is denied access to the PPIA and the FSIS procedures.

Paragraph 7.417 follows: “The Panel thus considers that the opportunity to export poultry products to the United States after successful completion of the PPIA and the FSIS procedures *is* an advantage within the meaning of Article I:1 of the GATT 1994 because it creates market access opportunities and affects the commercial relationship between products of different origins”.

⁶⁶ *EC – Bananas III*, AB Report (Article 21.5-United States), para. 337 (notes omitted):

... The principle of non-discriminatory application captured by Article XIII:1 requires that, if a tariff quota is applied to one Member, it must be applied to all; and, consequently, the term “similarly restricted” means, in the case of tariff quotas, that imports of like products of all third countries must have access to, and be given an opportunity of, participation. If a Member is excluded from access to, and participation in, the tariff quota, then imports of like products from all third countries are not “similarly restricted”.

⁶⁷ In *Canada –Wheat Exports and Grain Imports*, the Appellate Body stated: “When viewed in the abstract, the concept of discrimination may encompass both the making of distinctions between similar situations, as well as treating dissimilar situations in a formally identical manner” (*Canada –Wheat Exports and Grain Imports*, AB report, para. 87).

The Report of the Working Party on *Border Tax Adjustments* (1970) sets out the basic approach for interpreting “like” or “similar” products in the various provisions of the GATT 1947. Three criteria were suggested for determining, on a case-by-basis, the likeness of products: the product's end-uses in a given market; consumers' tastes and habits; the product's properties, nature and quality (Working Party on Border Tax Adjustment 1970, para. 18). A fourth criterion (a uniform tariff classification, if sufficiently detailed) was added in jurisprudence as “a helpful sign of product similarity”.⁶⁸ The approach based on the four criteria was consistently reiterated in jurisprudence (see, e.g. *Japan – Alcoholic Beverages II*, *Canada – Periodicals*, *EC – Asbestos*).

Moving from the *Border Tax Adjustment* framework, in the landmark *EC – Asbestos* case the Appellate Body concluded that “likeness” (under GATT Article III:4: NT) is “fundamentally, a determination about the nature and extent of a competitive relationship between and among products”.⁶⁹ Whether products have a sufficient competitive relationship “is a market-based determination, reflecting consumer behaviour” (Trachtman 2017, p. 278). Some degree of cross-price elasticity of demand, or elasticity of substitution,⁷⁰ is one means of determining whether products sufficiently compete in the marketplace, as pointed out in *Japan – Alcoholic Beverages II*.⁷¹

Thus, the understanding of “likeness” is market-based: in deciding whether two otherwise identical products are “like”, the WTO adjudicator will not consider whether the aim of the discrimination is protectionist or rather reflects a legitimate policy purpose (the so-called “aims and effects” test).⁷² The presence of a competitive relationship is the decisive benchmark for the analysis.

That said, concerns about health, the environment, and so on may still enter a “likeness” analysis under the GATT indirectly, insofar as they influence consumers' behaviour. As stated by the Appellate Body in *US – Clove Cigarettes* (a TBT case), they matter “to the extent they have an impact on the competitive relationship between and among the products concerned”.⁷³ This is also reflected in the *EC – Asbestos*, in the GATT context.⁷⁴ It has been noted in this respect, that the “aim and effects” test, rejected in jurisprudence, has come back in determining “likeness” under the GATT through the narrow window of “consumer preferences” (Lydgate 2011, p. 169). This insofar as consumers are aware and sensitive to risks: legitimate regulatory distinctions that are not reflected in consumer preferences do not play a role in determining whether products are “like” for GATT purposes (Howse 2012, p. 6 and Trachtman 2017, p. 278).

The findings summarized above are subject to two important caveats.

First, as consistently pointed out in relevant cases, any determination of likeness under WTO law is circumstantial and case-specific. No single approach will be appropriate for all cases.⁷⁵ Rather, “an assessment utilizing ‘an unavoidable element of individual, discretionary judgement’ has to be made on a case-by-case basis”, as recognized by the Appellate Body in *EC – Asbestos*.⁷⁶ In the end, as

⁶⁸ *Japan – Alcoholic Beverages II*, AB report, p. 21.

⁶⁹ *EC – Asbestos*, AB report, para. 154.

⁷⁰ Cross price elasticity of demand measures how a change in the price of one good will affect the quantity demanded of another good. It reveals the degree to which the goods are perceived as like or substitutable.

⁷¹ *Japan – Alcoholic Beverages II*, AB report, p. 25.

⁷² The Appellate body explicitly rejected “aim and effects” in *Japan – Alcoholic Beverages II* and subsequent cases.

⁷³ *US – Clove Cigarettes*, AB report, para. 119.

⁷⁴ In *EC – Asbestos*, the Appellate Body noted that consumer tastes and habits are very likely to be shaped by the health risks associated with known carcinogenic products (*EC – Asbestos*, AB report, para. 122).

⁷⁵ The criteria cited in *Border Tax Adjustments* are “simply tools to assist in the task of sorting and examining the relevant evidence. They are neither a treaty-mandated nor a closed list of criteria that will determine the legal characterization of products” (*EC – Asbestos*, AB report, paras. 101-103). Whatever the framework used to aid in the examination of “likeness”, a Panel will need to examine, in each case, “all of the pertinent evidence” (ibid).

⁷⁶ *EC – Asbestos*, AB report, paras. 101-103.

acknowledged by the Appellate Body in *Japan – Alcoholic Beverages II*, “panels can only apply their best judgement in determining whether in fact products are ‘like’”.⁷⁷ This reality highlights the need for more “systemic” interpretations of WTO rules that take sustainability issues into account.

Second, it is important to bear in mind that the scope of the term “like products” varies between different GATT provisions and between the GATT and other covered Agreements.⁷⁸ In *Japan – Alcoholic Beverages II*, the Appellate Body evoked the image of an accordion whose width would vary depending on the provision under which the term is being interpreted: “The accordion of “likeness” stretches and squeezes in different places as different provisions of the WTO Agreement are applied”.⁷⁹

5.1.2.3.2. “Likeness” of meat products based on sustainability criteria

Based on the above analysis, would conventional and sustainably certified meat be treated as “like products” for purposes of the non-discrimination provisions of the GATT? As discussed below, the answer is speculative and involves some degree of discretionary judgment.

Sustainably and unsustainably farmed meat are “like” according to three of the four traditional interrelated criteria for determining likeness under the GATT: physical characteristics, end-use, and tariff classification. Indeed, conventional industrial meat and sustainably produced meat have the same properties, nature, and quality (physical characteristics), including the same human consumption end.⁸⁰ They also have the same tariff classification under the HS Codes at the most disaggregated level.

However, the Panel should examine the evidence relating to these three criteria along with any other evidence relating to consumer behaviour when making an overall assessment of whether conventional and sustainable meat are in a competitive relationship in the marketplace. If competitiveness is measured in terms of price sensitivity and substitution behaviour in the relevant market, the question is whether meat consumers would readily switch between different meat categories (conventional and certified) in response to price developments. The competitive analysis may lead to different determinations, depending on whether the relevant market is defined as the entire meat market or by reference to specific (“ethical”) market segments.⁸¹ Further, a panel could take a static snapshot of the competitive relationship at a certain point, or take a more dynamic view that gives specific weight to the rise of “ethical consumerism” as evidence of consumer preferences.⁸² It follows that even an “objective”, econometric assessment of “likeness” would involve an unavoidable element of discretion. Panels will apply their best judgment in defining the relevant market and will make discretionary decisions in determining which evidence is most relevant – based on varying market data and different survey-based findings about elasticity of substitution.

The problem can be illustrated by reference to a recent referendum motion that would have put an end to intensive livestock farming in Switzerland (Swissinfo 2022). Of those who cast a ballot, about

⁷⁷ *Japan – Alcoholic Beverages II*, AB report, pp. 19-21.

⁷⁸ For example, the scope of “like” in Article III:4 is broader than “like” in Article III:2, first sentence; and “likeness” is determined differently in the TBT Agreement, under which the protectionist or legitimate objective of the measure matters in assessing discrimination.

⁷⁹ *Japan – Alcoholic Beverages II*, AB report, p. 21.

⁸⁰ Some may argue, however, that the physical properties and nutrient content of organic and conventionally produced meat vary. For an overview, Średnicka-Tober et al. 2016.

⁸¹ If we focus on the ethical consumer segment, certified and conventional meat are not “like”. Ethical consumers are committed to certified products and tend to be relatively price inelastic: they would not easily switch to unsustainably farmed meat, irrespective of price incentives (Willer et al. 2021, at 255). Note however that the sustainable meat market is a fraction of the overall meat market. If we focus on standard consumers and the aggregate market, their demand is price elastic: “standard” consumers perceive meat products similarly, irrespective of how meat is produced. The key variable in their purchasing behaviour is price.

⁸² Shifts in consumers’ attitudes and behaviours have accelerated with the climate change crisis and COVID-19: organic food sales are raising and an increasingly sizeable proportion of consumers are switching to healthy products in order to prevent diseases (Willer et al. 2021, p. 139).

63 percent rejected the initiative, and approximately 37 percent accepted it. The referendum indicates that a significant, but still minority share of those who voted would not readily switch between different meat categories (conventional and certified) in response to price developments. Indeed, even an estimated 20 percent increase in price would not affect their preference for “sustainable” meat. Nevertheless, the vast majority of voters are price sensitive, or remain unconvinced about the adverse sustainability impacts of (regulated) industrial livestock farming. The referendum may provide some indication of the degree to which meat supplies from intensive and non-intensive farming systems are perceived as “like”, but does not solve a key issue: the threshold needed to make such degree of preference relevant in a WTO case.

Case law provides little generalized guidance on the above issues – beyond the requirement to take all evidence into account when assessing likeness. If we look to past cases, the term “like products” has been construed quite broadly in jurisprudence so far, narrowing the room of manoeuvre countries have under GATT Articles I and III to draw regulatory distinctions grounded in sustainability concerns.⁸³ For example, traditional Japanese *shochu* and imported vodka were found “like” in terms of GATT Article III:2: NT because they were both white spirits made of similar raw materials and have like end-uses. Tuna caught by setting on dolphins was found “like” tuna fished in a manner that did not harm dolphins. Even more importantly given some resemblance with our hypothetical case, seal products from different types of hunt – “subsistence” versus “commercial” – were treated as “like” products. Given such litigation outcomes, it is reasonable to believe that sustainably produced and unsustainably produced meats may be treated as “like products” for GATT purposes. However, as mentioned, the political context in which WTO law is embedded is moving quickly, with growing acknowledgement of pressing sustainability imperatives. Ethical consumerism has seen unprecedented growth in recent years and shifting consumer preferences could make products “unlike” based on rising awareness of the climate change challenge and other critical sustainability issues (Holzer, 2015, p. 110; de Schutter, 2015, p. 51). A narrow interpretation of “likeness” that enables countries to differentiate products based on how they are produced would follow from “systemic” interpretative approaches, whereby WTO rules should be interpreted and applied in relation and by reference to a broader normative environment informed by sustainability concerns.

5.1.2.3.3. Is “likeness” the central issue?

While the issue of “likeness” has attracted much attention in academic circles, questions arise as to whether this is the main issue at stake.

In practice, if conventional and certified meat are found “like”, this does not mean that trade measures that discriminate between meat products based on their sustainability impacts would be GATT inconsistent. Grounds for justification could still be sought under Article XX: General exceptions, which justifies otherwise GATT-inconsistent measures that pursue legitimate public policy goals. In other words, nontrade concerns would be protected through the GATT exception regime, rather than being part of the GATT “likeness” analysis (Lydgate 2011, p. 174).

Interestingly, the main issue at stake in most PPM disputes was not the question of whether two otherwise identical products, but produced according to different processes or methods, must be treated as “like”. Instead, the question presented to the WTO adjudicator was whether determined procedures favoured some countries and not others, for example in regards to the administration of tariff quotas. As pointed out by Holzer, “[t]he likeness of products under Article I:1: MFN principle does not usually come under close examination. Under that provision, examination is usually focused on whether discrimination is based on origin” (Holzer 2014, p. 120). In stronger terms, De Schutter argues that the traditional scholarly formulation of the “likeness” question is misleading: the focus under WTO is

⁸³ A wide interpretation of “like products” broadens the scope of the non-discrimination obligations, while a narrow interpretation constrains them (Maggio 2017, pp. 72-73).

whether import procedures treat products that have different national origins in a discriminatory way, not whether they treat products that comply with certain standards like products that do not comply (de Schutter 2015, pp. 49-50). The issue of non-discrimination has been extensively discussed in the previous section and will be further discussed below, in the context of the non-discrimination analysis under GATT Article XX.

5.1.3. Justification under GATT Article XX

Let us assume that the measures at issue are found to discriminate or restrict imports, in violation of specific GATT provisions. If so, they could still be justified under Article XX of the GATT: General exceptions. Its subheadings (a) to (j) provide grounds justifying departures from GATT rules for legitimate public policies.

Based on *US – Gasoline* and subsequent jurisprudence,⁸⁴ justification of otherwise GATT-inconsistent measures under Article XX of the GATT involves a two-tier analysis. First, the contemplated measure must be provisionally justified under one or another of the subparagraphs of GATT Article XX. Second, the measure must satisfy the nuances of the introductory paragraph (the “chapeau”) of Article XX. The following section considers the two aspects in turn, pointing to various interpretive options.

5.1.3.1. *Is the measure provisionally justified under one of the subparagraphs of Article XX?*

Four exceptions seemingly apply to our case: paragraphs (a), (b), (d), and (g) of Article XX. According to these paragraphs, Switzerland may adopt trade measures inconsistent with GATT rules, but “necessary to protect public morals” (a), or “necessary to protect human, animal or plant life or health” (b), or “relating to the conservation of exhaustible natural resources” (g). Switzerland is also free to take trade measures “necessary to secure compliance with its laws and regulations”, insofar as these measures are GATT-consistent (d).

Provisional justification under any of these subparagraphs requires that the challenged measures “address the particular interests specified in the paragraph” (an issue discussed in section 5.1.3.1.1 below) and that “there be a sufficient nexus between the measure and the interest protected” (section 5.1.3.1.2).⁸⁵ The extraterritorial reach of the challenged measures may also come under scrutiny in this context (section 5.1.3.1.3).

5.1.3.1.1. Public policy objectives sought

Let us first consider whether the Act requirements address the particular policy interests enshrined in GATT Article XX.

As discussed in section 2.3., the Act sets sustainability requirements in the pursuit of three interrelated objectives: promoting animal welfare, mitigating climate change and other adverse environmental impacts, and favouring a shift towards healthy diets. Such policy objectives are in principle covered by Article XX: General exceptions. Indeed, Article XX grants WTO Members a wide scope for manoeuvre to determine their environmental policies and objectives, including relevant legislation.⁸⁶ A more detailed discussion is provided below.

⁸⁴ *US – Gasoline*, AB report, p. 22. See also *EC – Seal Products*, AB report, para. 5.169: “As established in WTO jurisprudence, the assessment of a claim of justification under Article XX involves a two-tiered analysis in which a measure must first be provisionally justified under one of the subparagraphs of Article XX, before it is subsequently appraised under the chapeau of Article XX [...]”.

⁸⁵ See Appellate Body Report, *US – Gambling*, para. 292. Although the issue on appeal in *US – Gambling* concerned the exception regime under the GATS, the Appellate Body analysis is also relevant in the context of Article XX of the GATT 1994.

⁸⁶ *US – Gasoline*, AB report, p. 29-30 (notes omitted):

Paragraphs (b: human, animal, and plant life or health) and (g: conservation of natural resources)

As reviewed in a WTO–UNEP report, in past cases, a number of policies have been found to fit within the scope of paragraphs (b) and (g) of Article XX, including: policies aimed at reducing consumption of cigarettes; protecting dolphins; reducing asbestos-related risks to human health; addressing waste tyre-related risks to human, animal, and plant life and health (under Article XX(b)); and policies aimed at conserving tuna, salmon and herring, dolphins, turtles, petroleum, and clean air (under Article XX(g)) (WTO and UNEP 2009). Further, some views expressed by the WTO adjudicative bodies corroborate a broad interpretation of Article XX covering climate change concerns. Based on the *US – Gasoline* jurisprudence,⁸⁷ a few scholars argue that climate change policies could fall under Article XX(b), as they intend to protect human beings from the negative impacts of climate change, or under Article XX(g), as they aim at conserving the ozone layer and those plant and animal species threatened by global warming (see, e.g., Meyer-Ohendorf and Gerstetter 2009; Pauwelyn 2007; and de Schutter 2015).

In light of the above, it can be easily maintained that the Act addresses the policy concerns specified in paragraphs (b) and/or (g) of Article XX. The Act aims at progressively reducing farm animal stocks and density as the main system lever for reducing agricultural GHG emissions. In this respect, it addresses climate change concerns that are in principle covered under Article XX (under either (b) or (g), or both). The Act animal welfare requirements are aimed at protecting animal life and health (a protected interest under GATT Art. XX (b)). At the same time, they promote a pastoralist system that supports the preservation of biodiversity-rich landscapes (linking with conservation objectives under subparagraph (g)). The Act’s stated objective in respect of human well-being – specifically the promotion of a more diversified and healthy diet – is relevant under subparagraph (b), in respect of human health.

Paragraph (a) (public morals)

The Act’s underlying concerns about animal welfare relate to paragraph (a) (public morals) of GATT Article XX. Under that paragraph, import restrictions are GATT-compliant if the imported products contradict “public morals” in a country. Public morals have provided a ground for (provisionally) justifying animal welfare regulations in the *EC – Seal Products* case.⁸⁸ With specific reference to the Swiss context, it has been argued that otherwise inconsistent trade measures originating in a popular vote should qualify in principle as “necessary for the protection of public morals” (Sieber-Gasser 2021). This raises the question: Does intensive industrial livestock contradict public morals in Switzerland? In Switzerland, animal welfare is a constitutionally enshrined concern. Switzerland has already banned the caging of chickens as well as the production of *foie gras*. It has made it illegal to throw live lobsters into boiling water. This is evidence of public morals that reject farming practices not respectful of animals. Note, however, that Swiss citizens have recently rejected an initiative that would have put an end to intensive industrial livestock farming in Switzerland. Citizens either judged that the dignity of animals is respected in the context of industrial livestock farming, or eased their

[...] Article XX of the General Agreement contains provisions designed to permit important state interests - including the protection of human health, as well as the conservation of exhaustible natural resources - to find expression. [...] in the preamble to the WTO Agreement and in the Decision on Trade and Environment, there is specific acknowledgement to be found about the importance of coordinating policies on trade and the environment. WTO Members have a large measure of autonomy to determine their own policies on the environment (including its relationship with trade), their environmental objectives and the environmental legislation they enact and implement. So far as concerns the WTO, that autonomy is circumscribed only by the need to respect the requirements of the General Agreement and the other covered agreements.

⁸⁷ In *US – Gasoline*, the panel found that a policy to reduce air pollution was a policy concerning the protection of human, animal, and plant life or health under Article XX(b) (*US – Gasoline*, panel report, para. 6.21), and that a policy to reduce the depletion of clean air related to the conservation of an “exhaustible natural resource” within the meaning of Article XX(g) (ibid, para. 6.37).

⁸⁸ In that case, the Appellate Body found that the EU Seal regime was “necessary to protect public morals” within the meaning of GATT Art. XX(a), but that the EU had not demonstrated that the regime met the requirements of the chapeau of GATT Article XX.

ethical concerns in the face of rising food prices. In both cases, the public moral exception is weakened, even if still relevant.

Paragraph (d) (compliance with GATT-consistent laws and regulations)

Finally, subparagraph (d) is also relevant, so long as the Act's import regulation serve the purpose of enforcing a domestic supply scheme. To be justified provisionally under paragraph (d) of Article XX, two elements must be shown: first, the measure must be designed to "secure compliance" with laws or regulations that are not themselves inconsistent with some provision of the GATT 1994; second, the measure must be "necessary" to secure such compliance.⁸⁹ This second requirement brings us to the following analysis about the relationship between the measure and its stated end.

5.1.3.1.2. Means–end relationship

As seen above, it is relatively easy to argue that the Act addresses the interests specified in one or another of the subparagraphs of GATT Article XX: General Exceptions. However, this is not enough to seek (provisional) justification under those exceptions. It is necessary to prove that there is a sufficient nexus between the measure and the interest protected. In our hypothetical case, the question is whether the import/sales requirements of the Act will pass the "relating to" test and the "necessity" test established by the GATT/WTO adjudicative bodies under paragraphs (a), (b), (d), and (g) of GATT Article XX: General exceptions. The answer requires the analysis of the relationship between an *end*, i.e. the policy objective pursued, and a *means*, i.e. the type of measure deployed in its pursuit (Cottier et al. 2013, p. 15). As set by the Appellate Body, the evaluation of the means–end relationship differs under the "relating to" test (paragraph (g)) and the (more stringent) "necessity" test (paragraphs (a), (b) and (d)). The following analysis first considers whether the measures at issue would meet the conditions to pass the "relating to" test, before moving on to the "necessity" test.

"Relating to" test

Article XX (g) justifies GATT-inconsistent measures that "relate to" the conservation of exhaustible natural resources. As discussed in section 5.1.3.1.1, the exception is interpreted to cover climate change policies aimed at reducing GHG emissions.

Do the Act import/sales requirements genuinely "relate to" climate change objectives and/or the promotion of biodiverse-rich landscapes in the Alps (legitimate "conservation" objectives under subparagraph (g))? This raises the question of whether any relationship with conservation is enough for a trade measure to fit under Article XX (g), or whether a *particular* relationship is required.⁹⁰

Based on the Appellate Body reasoning in *US – Gasoline* and *US – Shrimp*, for a measure to "relate to" the conservation of natural resources, there must be a "substantial" relationship between the measure and the stated objective. As worded by the Appellate Body, the contemplated measure should be "reasonably related" to the end;⁹¹ it should reflect "a close and genuine relationship of ends and means".⁹² Such an interpretation of the "relating to" test is broader than the "primarily aimed to" approach of earlier Panels.⁹³ However, it is narrower than what is suggested by the ordinary meaning of the term "relating to" (Appleton 1997). In particular, a measure that is "merely, incidentally, or inadvertently", aimed at the conservation of an exhaustible natural resource would not satisfy the

⁸⁹ *Korea – Various Measures on Beef*, AB report, para. 157.

⁹⁰ A second requirement must be met to be in line with paragraph (g): the measure applied to imports must be "made effective in conjunction with restrictions on domestic production and consumption" (the so-called even-handedness requirement). This requirement is easily met in our case: as discussed, we are in the presence of border restrictions introduced alongside even more stringent internal controls.

⁹¹ *US – Shrimp*, AB report, para. 141.

⁹² *Ibid.*, para. 136.

⁹³ See, e.g. *Tuna – Dolphin (1991)*, GATT panel report, paras. 5.30-5.34 (unadopted); the *Tuna – Dolphin (1994)*, GATT panel, paras. 5.21-5.27 (unadopted); and *US – Gasoline*, panel report, paras. 6.35-6.40.

requirement.⁹⁴ Further, the measure should not be “disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation”.⁹⁵

In light of the above, can a “genuine” relationship of ends and means be established between the Act sustainability requirements and the conservation objectives protected under GATT Art XX (g)? This seems to be the case if enough emphasis is put on the Act density requirements.⁹⁶ In Switzerland, livestock is the main agricultural source of GHGs that accelerate climate change.⁹⁷ By discriminating in favour of a less-intensive farming system with reduced livestock density, both in Switzerland and abroad, the Act contributes to mitigating climate change. Further, the Act promotes a pastoralist system that supports the preservation of biodiversity-rich landscapes in the Alps. In both respects, it rationally links with conservation objectives under subparagraph (g)).

However, the complainants in a hypothetical dispute may still point to some aspects that make the analysis more complex. In particular, some may argue that the Act requirements are not focused and targeted enough, since some requirements essentially serve animal welfare objectives, not the conservation of exhaustible resources. For example, requirements in respect of access to the outdoors have no (positive) impact on climate change or the promotion of biodiversity, while they are central to animal welfare. It could be claimed in this respect that the Act is “disproportionately wide in its scope and reach” in relation to the policy objective of conservation.⁹⁸

In a related way, some may point to the complex trade-offs that exist across different policy objectives under the Act – for example, between promoting animal welfare and reducing GHG emissions. It is important to note, in this respect, that extensive pastoralist livestock systems are by no means free of negative environmental impacts. In terms of GHG emissions and “carbon opportunity costs”, extensive systems may be less effective than industrial livestock (see e.g. Hayek et al. 2021). GHG-mitigation interventions stress resource use efficiency along the chain, more than a change in production systems, from industrial to pastoralist (see, e.g., Gerber et al, 2013).

Finally, when it comes to imported meat, it may be difficult to argue that the LFA is rationally related to climate change objectives, unless the Act firmly sets (and enforces) limits on livestock density and size in foreign countries, which may be difficult to do because of extraterritorial issues. If such limits are not set, it would be difficult to maintain that the measure results in positive climate change outcomes at the global level.

A Panel may address these arguments in different ways, depending on the nature, quantity, and quality of the evidence presented. On the one hand, following e.g. *EC – Seal Products*, the Panel could assess the Act and its implementing ordinances “as a whole” and discern conservation as its main policy objective. This also in the light of the fact that certain complex environmental problems may be addressed only with a comprehensive policy comprising a multiplicity of interacting measures, recognized by the Appellate Body in *Brazil – Retreaded Tyres*. On the other hand, the Panel may decide that it is the climate change-related measures that must be justified under Article XX (g), while animal

⁹⁴ *US – Gasoline*, AB report, at 623.

⁹⁵ *Ibid.*

⁹⁶ As mentioned, the hypothetical Act sets limits on the commercial stock of animals in Switzerland. It does so by limiting the number of agricultural holdings with animals, as well as the number of livestock units per farm in absolute terms and per hectare of utilized agricultural area. See above, section 2.1.1.

⁹⁷ Agriculture contributes 12.4 percent of total anthropogenic GHG emissions in Switzerland. The main agricultural sources of GHG were methane (CH₄) emissions from enteric fermentation (56 percent, mainly from ruminants). See Agroscope, Swiss Agricultural Greenhouse Gas Inventory <https://www.agroscope.admin.ch/agroscope/en/home/topics/environment-resources/climate-air-quality/treibhausgas-emissionen/swiss-national-greenhouse-gas-inventory-agriculture.html> (accessed 5 October 2022).

⁹⁸ *US – Shrimp*, AB report, para. 141.

welfare requirements fall within the scope of other relevant exceptions, e.g. Article XX (a). This leads us to the following “necessity” analysis under subparagraphs (a), (b), and (d).

“Necessary” test

If Switzerland wishes to justify its measure under the other exceptions, it must demonstrate that the challenged measure is “necessary” by reference to the objectives it seeks – protect “public morals” under paragraph (a); protect “human, animal or plant life or health” under paragraph (b); or “secure compliance” with otherwise GATT-consistent laws and regulations under paragraph (d) of GATT Article XX.

The “necessity” analysis under GATT Article XX is more complex than an assessment of the “relating to” nexus. In WTO jurisprudence, the evaluation of “necessity” of a trade restriction under Article XX involves “a process of ‘weighing and balancing’ a series of factors, including the importance of the objective, the contribution of the measure to that objective, and the trade-restrictiveness of the measure”.⁹⁹ A measure’s contribution to its end is just one term of the “necessity” equation. Other factors inform the analysis, beyond the level of contribution, including a consideration of potential alternative measures that would have less restrictive effects. In the process of weighing and balancing, the more important the common interests or values pursued, the easier it is to accept trade restrictions as necessary.¹⁰⁰ The analysis below considers two variables of the necessity equation – the means-end relationship and the availability of less restrictive alternatives. A Panel would need to evaluate them in relation to each other and consider the interests or values at stake, in order to reach an overall judgement.¹⁰¹

a) *Is the measure effective to achieve its aim?*

As stated in *Brazil – Retreaded Tyres*, a panel “enjoys certain latitude” in analysing the contribution of a measure to the realization of its ends.¹⁰² Such an assessment may be performed in qualitative or quantitative terms, and its depth “ultimately depends on the nature, quantity, and quality of evidence existing at the time the analysis is made”.¹⁰³ Note also that in *Brazil – Retreaded Tyres* and *EC – Seal Products*, the Appellate Body rejected the use of a pre-determined threshold of means-end contribution in analysing the necessity of a measure under Article XX of the GATT 1994.¹⁰⁴ The contribution threshold is set at different levels depending on the trade-restrictiveness of the measure and the importance of the interests at stake.

In our (fictional) case, the “contribution” analysis may be more or less complex depending on the different objectives pursued. It is important to note, in this respect, that the LFA objectives are multidimensional, even if entangled – promote animal welfare, reduce GHG emission and other adverse environmental impacts of livestock farming, and favour a healthier diet. Under WTO law, the environmental/health objectives of the LFA regime (assessed under (g) and (b)) are separate and independent from the objective of addressing animal welfare concerns (assessed under (a)). This unless justification of the FTA “as a whole” is sought under a single exception (for example, animal welfare).

The assessment in a hypothetical act can only be speculative, since in practice most would depend on specific factual details that are not available in our case. Bearing that in mind, we can conjecturally maintain that import/sale requirements based on animal welfare standards (in respect of access to outdoor, housing conditions, etc.) rationally “contribute” to the protection of *animal life and health* (paragraph (b) of GATT Article XX), in terms of means-end relation.

⁹⁹ *EC – Seal Products*, AB report, para. 5.214. See also *Brazil – Retreaded Tyres*, AB report, para. 5.169.

¹⁰⁰ *EC – Asbestos*, AB report, para. 172.

¹⁰¹ *EC – Seal products*, AB report, para. 5.214.

¹⁰² *Brazil – Retreaded Tyres*, AB report, paras. 145 – 146.

¹⁰³ *Ibid.*, paras. 145 - 146

¹⁰⁴ *EC – Seal Products*, AB report, paras. 5.213–5.216.

As regards the *moral exception* (paragraph (a)), in *EC – Seal products* the Appellate Body upheld the Panel’s finding that an EU import ban on seal products was “necessary to protect public morals” within the meaning of Article XX(a) of the GATT 1994. Along these lines, the LFA regulations may be found apt to protect public moral concerns with regard to animal welfare – recognized as an “important value or interest” under WTO law.¹⁰⁵

Turning to the means–end relationship to *human* life and health objectives, the assessment is perhaps less straightforward. On the one hand, by reducing meat supply and raising meat prices, the measures at stake are expected to drive a shift from meat to non-meat products, with positive public health implications. On the other hand, higher meat prices may simply translate into lower nutrient intake for vulnerable households, with adverse health impacts – though such impacts, in our case, are mitigated by social safety measures, as discussed in section 2.4.2. Further, one may also consider human health impacts from a zoonosis perspective. The measures at stake militate against an intensive farming model that amplifies the impact of zoonotic disease due to the high density, genetic proximity, increased immunodeficiency, and live transport of farmed animals (Espinosa et al., 2020; Jones et al., 2013). Yet more traditional farming systems such as backyard farming may also increase the risks of disease transmission from wild animals. A panel finding in this area would need to be contextual and evidence-based.

Finally, as discussed, *if* the Act is interpreted to enforce a domestic supply management scheme, border restrictions are clearly “necessary” to fulfil its objective. Switzerland would successfully discharge the “means–end” burden of proof if the Act is consciously designed as a supply management scheme aimed at reducing industrial meat consumption in Switzerland, as discussed in Box 4.

With some nuances, the above analysis yields a preliminary conclusion that the measure would be seen as apt to attain its desired policy objectives – although most would depend on the materiality threshold set by the Panel in assessing necessity.

b) Is the measure the least trade-restrictive?

As mentioned, a measure’s contribution to its end is only one component of the necessity analysis under GATT Article XX. A second component in the context of a necessity analysis under GATT Article XX – (a), (b), and (d) – concerns the existence of potential alternative measures. The question is: Are there less trade-restrictive options, reasonably available, that can adequately fulfil the same objectives? If an alternative, non-violation measure or a less inconsistent measure is reasonably available, the “necessity” test is not met. This is a question of reasonable alternatives, considering both the trade-restrictiveness of the challenged measure and the importance of the non-trade interests or values pursued.

The measures at issue include trade regulations in the form of new eligibility requirements for in-quota imports. Such conditions relate to the administration of in-quota tariffs. They are less trade-restrictive than an import ban. However, they increase the costs of trade and are cumbersome to administer. A panel would then consider if there are less trade-restrictive alternatives, which are reasonably available and equally effective in achieving the same policy goal – that is, to protect animal/human life and health or public morals. It may arrive at different conclusions, as discussed below.

One may argue that there are reasonably available alternatives to unilateral trade restrictions, and equally effective. For example, positive labelling may offer an alternative to unilateral border restrictions in driving more sustainable consumer behaviour. It may also be trade restrictive, but less so than the challenged measures. In Switzerland, for example, the market share of organic products rose from 4.6 percent in 2007 to 9 percent in 2017 (Swiss info 2018), a development spearheaded by positive labelling. Other alternatives to border restrictions include incentives – in the form of direct payments to producers that reduce their livestock and implement specific animal welfare programmes. Two

¹⁰⁵ *EC- Seal Products*, panel reports, para. 7.632.

voluntary programmes have been particularly successful in spearheading high animal welfare standards in Switzerland – the SST and SRPA programmes. An increasing number of farms adhere to these programmes, which have proved effective in spearheading major shifts in production patterns. Likewise, it would be important to remove improper incentives, before taking unilateral trade measures. For example, Switzerland may reduce and adjust existing explicit and implicit subsidies that do not embed sustainability requirements, such as the so-called “Inandleistung”, i.e. the quota rents received by domestic producers. Finally, as regards human health and dietary patterns, non-regulatory demand side measures, such as awareness-raising and education, are key policy instruments to promote a shift in consumption from meat to a more varied diet that reduces health risks and environmental pressures. Overall, some might argue that a more comprehensive approach could achieve more than unilateral trade measures, and do so in a more efficient manner.

However, there are also valid arguments in favour of border measures. Mandatory labelling schemes involve similar certification and compliance assessment costs to those incurred under the hypothetical LFA, but are less direct in their effect. Labels neither reduce the availability of industrial meat nor increase its price; they only signal to consumers that some meat is sourced sustainably. Their impact will depend on the willingness of consumers to change their consumption habits in light of the information, without any price incentive. Voluntary private labels are highly contested in terms of their sustainability impacts: most private labels are demand-driven and commercially oriented, and have little consideration for socio-ecological specificities in context and local needs. Note also that the systemic impact of positive labelling remains small: in Switzerland, for example, only 6 percent of the meat consumption market is sustainable (based on organic standards). This also reflects the fact that some market segments in consuming markets, such as industrial consumers and the restaurant- and food-service sectors, do not have special market incentives to shift to sustainable sourcing practices (Baumgartner and Bürgi Bonanomi 2021). When consumers are not aware or not sensitive to risks, the regulator should step in with command-and-control type measures. It is also important to acknowledge that the Act is *per se* a relatively mild trade restrictive option. It does not set an import ban: non-compliant meat can still enter Switzerland, even if out of quota. Further, Switzerland does not require that foreign countries adopt Switzerland’s technical regulations and standards as a condition for in-quota access to the Swiss market. Instead, it sets procedures for the equivalence/mutual recognition of substantially *equivalent* standards. Taking all these facts into account, based on the nuanced analysis in *EC – Asbestos*,¹⁰⁶ the panel may then consider that, in the present context of climate change, the values pursued by the measure are “vital and important in the highest degree”, which may justify some mitigated interference with trade interests.

5.1.3.1.3. Extra jurisdictional aspects

A final issue deserves attention, as part of the analysis under Article XX: General exceptions. The Swiss import requirements promote sustainable livestock farming within and outside Switzerland. They may be perceived as “extraterritorially” applied,¹⁰⁷ to the extent that they pursue sustainability objectives outside the Swiss jurisdiction. Would Switzerland be able to defend the measure under GATT Article XX? In particular, can a trade measure protect the life or health of animals outside the jurisdiction of the state taking the measure?

Such complex jurisdictional question can be approached from three separate but related angles: the “coercive” effects of the measure on the policy discretion of other countries; recourse to unilateral measures conditioning market access to the adoption of certain policies by exporting countries; and the link between the protected interests and the jurisdiction taking the measures. We briefly take them in turn.

¹⁰⁷ The issue is contested. As stressed in Sifonios and Ziegler 2020, as far as public international law is concerned, “there is no right to trade and each country has the sovereign right to choose the conditions to which products can be imported in its territory” (p. 125).

The “coercive” effects of the measure

The first issue revolves around the potential “coercive” nature of the measure. While this is an issue under the second-tier analysis (chapeau of Article XX, discussed below), we here consider its jurisdictional implications. Based on *US – Shrimp*,¹⁰⁸ Switzerland should not require another member to adopt essentially the same regulatory programme with respect to livestock conditions, but should instead accept as equivalent exporting countries’ own programmes, if comparable in effectiveness. The standard is a relatively flexible one: As confirmed in the *US – Shrimp* compliance assessment proceeding,¹⁰⁹ a requirement that foreign programs should be comparable in effectiveness would be compatible with the chapeau of Article XX GATT and hence would not constitute arbitrary discrimination. The country enacting the measure would retain some discretion in assessing which programmes can be considered as comparable in effectiveness (Howse and Neven, at 53). As extensively discussed in Section 2.4 and below, the Swiss regulations are framed in a context-sensitive and flexible way and do not have “coercive” effects on the policy discretion of other countries.

Unilateralism v. multilateralism

A second related issue is whether unilateral measures conditioning market access to the adoption of certain policies by exporting countries are consistent with (the chapeau) of Art XX (again, an issue under the second-tier analysis – Section 5.1.3.2 below). As extensively reviewed in Sifonios (2018), while some early GATT jurisprudence had concluded that such unilateral measures were outside the scope of GATT Article XX,¹¹⁰ new perceptions were formed in the wake of more recent environmental disputes. In *US – Shrimp*, the Appellate Body noted: “conditioning access to a Member's domestic market on whether exporting Members comply with, or adopt, a policy or policies unilaterally prescribed by the importing Member may, to some degree, be a common aspect of measures falling within the scope of one or another of the exceptions (a) to (j) of Article XX”.¹¹¹ Hus, based on the *US – Shrimp* logic, the exceptions under Article XX could in principle cover unilateral measures conditioning market access to the adoption of certain sustainability policies, including npr-PPMs. However, there is little scope for *abusive* unilateral action: in *US – Shrimp* the Appellate Body applied a balancing approach whereby the rights and obligations of the Members “are weighed and must be exercised in good faith (‘reasonably’)” (Appleton, at 492).¹¹² Such test will “restrict most if not all instances of abusive unilateral action, and serve to limit the serious risks that product distinctions based on NPR-PPMs could pose to the international trading system” (ibid.). As discussed in the following Section, the balancing/proportionality test enshrined in the chapeau of Art XX invites consideration of alternative, less trade restrictive courses of action, alongside other chapeau’s requirements that limit the

¹⁰⁸ *US – Shrimp*, AB report, para. 164.

¹⁰⁹ *US – Shrimp* (Article 21.5 – Malaysia), AB report, para. 144:

In our view, there is an important difference between conditioning market access on the adoption of essentially the same program, and conditioning market access on the adoption of a program comparable in effectiveness. Authorizing an importing Member to condition market access on exporting Members putting in place regulatory programs comparable in effectiveness to that of the importing Member gives sufficient latitude to the exporting Member with respect to the program it may adopt to achieve the level of effectiveness required. It allows the exporting Member to adopt a regulatory program that is suitable to the specific conditions prevailing in its territory. As we see it, the Panel correctly reasoned and concluded that conditioning market access on the adoption of a program comparable in effectiveness, allows for sufficient flexibility in the application of the measure, so as to avoid “arbitrary or unjustifiable discrimination.” We, therefore, agree with the conclusion of the Panel on “comparable effectiveness”

¹¹⁰ In the 1991 *Tuna – Dolphin* case, the panel considered that if Article XX(g) applied extra jurisdictionally, “each contracting party could unilaterally determine the conservation policies from which other contracting parties could not deviate without jeopardizing their rights under the General Agreement”. On this ground, the Panel also rejected an extra jurisdictional application of Article XX(b) (*US – Tuna I (1991)*, GATT panel report, paras. 5.30-5.34). WTO members’ independence to determine their own environmental objectives has been restated on a number of occasions, for example in *US – Gasoline* and in *Brazil – Retreaded Tyres*.

¹¹¹ *US – Shrimp*, AB report, para. 121. In that landmark case, the Appellate Body assessed as within the scope of Article XX(g) a policy that applied not only to turtles within the United States’ waters but also to those living beyond its national boundaries.

¹¹² *US – Shrimp*, AB report, paras. 156 and 158.

potential application of unilateral trade measures – the non-coercive requirement, the need to explore co-operative solutions before resorting to unilateral approaches, and due process safeguards (see below, Section 5.1.3.2).

“Nexus” issues

Finally, in the context of the first-tier analysis under GATT Article XX, questions arise regarding the interests protected, and the “nexus” with the jurisdiction taking the measure. Based on the Panel reasoning in *EC – Tariff Preferences*, a measure must be designed for the purpose of protecting human life or health *in the regulating state* in order to fall within Article XX(b).¹¹³ Based on *US – Shrimp* (Article XX(g)), there should be a “sufficient nexus” between the situation in exporting countries and the sustainability risks for the importing country that imposes the measure. In the *US – Shrimp* case, the “nexus” was established since the species of sea turtles at stake were “highly migratory animals, passing in and out of waters subject to the rights of jurisdiction of various coastal states”, and were “all known to occur in waters over which the United States exercises jurisdiction”.¹¹⁴

That said, the key question in our case is whether a sufficient nexus exists between unsustainable livestock farming elsewhere and the risks for Switzerland. A nexus would evidently exist if the measures at stake were grounded in public morals within the meaning of GATT Article XX(a), or if they were designed to secure compliance with domestic laws under Article XX(d). More complex nexus issues would instead arise if justification were sought on the basis of human/animal health concerns (Article XX(b)) or environmental/climate policy concerns (Article XX(g) and part of (b)). While (human and animal) health concerns would raise jurisdictional issues based on *EC – Tariff Preferences*,¹¹⁵ the “extraterritoriality” issue would likely be less prominent in respect of environmental/climate policy objectives. As pointed out by Cottier et al. (2013, p. 18-19; 2021), one may argue that climate change and loss of biodiversity are issues of Common Concern of Humankind enshrined in international treaties.¹¹⁶ As a matter of fact, climate change caused by emissions resulting from activities outside Switzerland affects Switzerland as well. In this respect, measures aimed at encouraging sustainable livestock practices elsewhere can be viewed as having a sufficient nexus with the risks in Switzerland. Yet, for this argument to hold, the design of the measure and its stated objective should be sufficiently linked to climate change mitigation and other environmental objectives, as further discussed in Section 5.1.3.1.2 above.

¹¹³ The Panel found that the tariff preferences granted by the European Communities under its Drug Arrangements were not related to the protection of human life or health in the European Communities. Instead, they pursued development policy objectives in developing countries, to favour sustainable development (*EC – Tariff Preferences*, Panel Report, para. 7.202).

¹¹⁴ *US – Shrimp*, AB report, para. 133. The issue is embraced in food systems. As stated in UNEP 2019 (p. 13), “policies developed through a food systems lens tackle unsustainable production patterns by acknowledging the consumption drivers that shape the design of these production systems (e.g. consumer preferences for processed livestock products and fast food, lifestyles, education, etc.)”

¹¹⁵ As mentioned, based on the Panel reasoning in *EC – Tariff Preferences*, a measure would need to be designed for the purpose of protecting animal welfare *in Switzerland* in order to fall within Article XX(b). Instead, border restrictions tackling meat from intensive farming would be intended to protect animal welfare outside the Swiss jurisdiction.

¹¹⁶ The recognition of climate change, biodiversity, and other shared issues as a “common concern of mankind” has found expression in a number of treaties, including the 1992 United Nations Framework Convention on Climate Change, the 2015 Paris Agreement, the 1992 United Nations Convention on Biodiversity, the 2001 international Treaty on Plant Genetic Resources for Food, and the Convention for the Safeguarding of the Intangible Cultural Heritage of 17 October 2003. The emerging principle of common concern has operational significance in relation to shared issues/public goods whose management involved fundamental collective action problems. As discussed in Cottier (2021), “basic obligations under the principle of Common Concern of Humankind comprise not only that of international cooperation and duties to negotiate, but also of unilateral duties to act to enhance the potential of public international law to produce appropriate public goods”. For an overview and discussion, Cottier (2021).

Shared concerns about biodiversity loss and climate change would provide a sufficient nexus if we were to interpret WTO law in accordance with the objective of sustainable development. That objective is written into the Preamble of the Marrakesh Agreement establishing the WTO. It adds “colour, texture and shading” to the interpretation of the WTO Agreements, as stated by the Appellate Body in *US – Shrimp*.¹¹⁷ Under that principle, in carrying out its interpretative function, the WTO adjudicator is bound to reconcile free trade with the need to take into account climate change, biodiversity, and other shared environmental concerns. Such interpretive process is likely to make the “extraterritoriality” issue less prominent than in the past in the area of environmental/climate claims (Sifonios and Ziegler 2020).

5.1.3.2. Does the measure meet the “chapeau” requirements?

Let us assume that the Act import/sales requirements are provisionally justified under one of the paragraphs of Article XX (first-tier analysis). In order to be justified under Article XX, they would also have to satisfy the conditions of the chapeau of Article XX (second-tier analysis).¹¹⁸ The relevant requirements under the chapeau are that the measure is “not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail”, and is not “a disguised restriction on international trade”.

WTO jurisprudence has specified some of the conditions which may help to demonstrate that a measure is applied in accordance with the chapeau. These include the flexibility of the measure to take into account different situations in different countries, basic fairness and due process in its implementation, and relevant cooperation activities undertaken by the defendant. Other substantive requirements point to some “balance”, or “proportionality” test, and “reasonableness”, in the application of the measure. Such circumstances are discussed below, in the specific context of the Livestock Farming Act.

a) Flexibility

First, following *US – Shrimp* a panel would likely look at whether the import/sales requirements of the Act are flexibly designed to take into account different situations in different countries. In other words, the Swiss measures should not have a “coercive effect” on the internal policies of the exporting country.¹¹⁹ Switzerland should not require another member to adopt essentially the same regulatory programme with respect to livestock conditions, but should instead accept as equivalent exporting countries’ own programmes, if comparable in effectiveness.

As discussed, the Livestock Farming Act allows for sufficient flexibility in the application of its requirements, at least on paper. The implementing ordinances recognize the production rules and inspection systems that exist in a number of countries as being equivalent to those operating in Switzerland; the Landscape programme “validates” as sustainable entire sourcing areas based on sustainability requirements that are defined locally.

The base standard is the Swiss one, which is benchmarked against broadly aspirational objectives – the “five freedoms” – that reflect international consensus.¹²⁰ However, the equivalence/accreditation schemes provide explicitly for the specific conditions prevailing in each country. Further, it links with regional networks and initiatives that catalyse sustainability changes in livestock farming through dialogue, consultation and joint analysis (see section 2.4.3).

Questions might still arise as to how animal welfare programmes can be comparable in effectiveness without being essentially the same. Indeed, the factors affecting the welfare of a given species reflect objective and quantifiable conditions in respect of, for example, access to outdoors, grazing, and feeding. Yet the assessment methods and indicators of animal welfare vary widely, which allows for

¹¹⁷ *US – Shrimp*, AB report, para. 153.

¹¹⁸ *US – Gasoline*, AB report, p. 22.

¹¹⁹ *US – Shrimp*, AB report, para. 164.

¹²⁰ See above, footnote 8.

flexibility in the design, implementation, and monitoring of animal welfare requirements (for an overview, Sejian et al. 2011).

The measures at issue should not discriminate between countries “where the same conditions prevail”. Experts and WTO adjudicative bodies have expressed the view that this requires differentiation between countries where conditions are not the same (Cottier et al. 2013; Quick 2000; Pauwelyn 2007). It would follow that Switzerland can discriminate in favour of imports from validated sourcing areas, since the validation process makes it possible to obtain evidence that meat is being produced sustainably. Based on the corresponding evidence, Switzerland would be allowed to differentiate in favour of countries included in the list of countries with animal welfare systems equivalent to the Swiss one. This would not amount to arbitrary or unjustifiable discrimination between countries, in light of the actual differing livestock farming conditions between countries.

b) Basic fairness and due process

Furthermore, it is important that the measure reflects “basic fairness and due process” in its application.¹²¹ The requirement comes with different nuances, as established in the landmark *US – Shrimp* case. The measure should be administered in a *transparent* manner. It should not be so discretionary in its application so as to leave the authorities in charge of its implementation an excessive margin of appreciation. In particular, the certification process should be transparent and predictable, resulting in written and reasoned decisions, whether of acceptance and rejection. Further, it should provide formal opportunities for an applicant country to be heard or to respond and formal procedures for *review* of, or *appeal* from, a denial of application.¹²² In addition, there should be a reasonable *phase-in* period between its enactment and entry into force, so as to allow exporting countries to adjust.¹²³

The Livestock Act would likely meet the “procedural” nuances of the chapeau’s requirements. As discussed, Switzerland incorporated transparency processes, including early notice and consultations, into the regulatory lifecycle of the hypothetical Livestock Act. It provided “early notice” in the preparation process, notifying concerned members, through the WTO Secretariat, of the proposed measures. It established a dedicated contact point and solicited comments on the proposed conformity assessment procedures. It promptly published its final regulations. Further, it set formal certification and compliance assessment procedures that incorporate due process requirements.

c) International cooperation

Finally, a crucial question is whether the country taking the measure engaged in *negotiations and coordination activities with its affected trading partners*, or at least attempted to do that.¹²⁴

As discussed, in our hypothetical case, Switzerland proactively engaged with all potentially affected trading partners, with a view to assessing the possibility of establishing bilateral and multilateral equivalence arrangements.

Further, the measures at issue fully acknowledge the difficulties and challenges that developing country members may face. Switzerland has set up a dedicated technical assistance programme for the recognition of standards set within integrated landscape approaches. Technical support covers, for instance, assistance with the establishment of national multi-stakeholder compacts, conformity assessment procedures, and recognition of equivalence. It is designed and delivered in partnership with the foreign government.

d) “Balance” test, proportionality, and reasonableness

The above considerations are essential ingredients of the “reasonableness” and “balancing” assessment required by the chapeau of GATT Article XX. As consistently interpreted in jurisprudence,

¹²¹ *US – Shrimp*, AB report, para. 181.

¹²² *Ibid*, para. 180.

¹²³ *Ibid*, para. 174. A 12–18 month time lag would amount to reasonable time period, according to some views (Cottier et al 2013, p. 18)

¹²⁴ *US – Shrimp*, AB report, para. 171, footnote 174.

the chapeau of Article XX is intended to avoid misuse/abuse of exceptions. It “operates to preserve the balance” between non-trade and trade concerns under the GATT, so that “neither of the competing rights will cancel out the other”.¹²⁵ This implies “some reliance” on a proportionality test (Appleton, 492). In our view, the test is satisfied, as long as: the Act sustainability requirements are flexibly designed, allowing variations based on legitimate socio-ecological criteria; the Act certification and compliance assessment procedures are non-discriminatory, transparent, and incorporate “due process” rights; and Switzerland produces genuine evidence of its offers to negotiate bilateral/multilateral equivalence arrangements, combined with technical and financial transfers to developing countries in respect of the Act’s implementation.

However, in a real case, most would depend on specific technical details associated with the facts of the dispute, the arguments of the parties, and the type and quality of evidence produced by the parties. In our case, the “reasonableness”/“proportionality” analysis under the chapeau may bring back some open issues as regards the means–end relationship of the challenged measure if justification were sought under the GATT environmental exceptions (subparagraphs (g) and (b)). As stated by the Appellate Body in *EC – Seal Products*, central to the assessment of arbitrary or unjustifiable discrimination under the chapeau of GATT Art XX “is the question of whether the discrimination can be reconciled with, or is rationally related to, the policy objective with respect to which the measure has been provisionally justified under one of the subparagraphs of Article XX”. In our hypothetical case, this involves an assessment of whether the differences in treatment (between meat produced according to different livestock-farming systems) are “calibrated” to the different risks stemming from different livestock production systems (intensive, industrial livestock farming versus extensive pastoralist systems).¹²⁶ The WTO adjudicator would then need to consider at great length the different environmental impacts of different farming models – intensive, industrial livestock production versus more extensive, pastoralist systems aligned with agroecological principles. As discussed, both systems are by no means exempt from negative impacts, at least from the perspective of GHG reductions and “carbon opportunity costs”.¹²⁷ Nevertheless, when considered holistically, these systems and their respective risks/benefits are clearly different in nature, which justifies differences in treatment (IPES-Food 2022).

5.1.4. ... to sum up

To sum up, the Livestock Farming Act, as hypothetically designed, would pass *in principle* a GATT compliance test. As well established in WTO jurisprudence (see, in particular, the landmark *US – Shrimp* case) and in the scholarly debate, PPMs – in our case regulatory distinctions between meat products based on farming practices – are not *a priori* illegal under WTO law (GATT/TBT). They can be justified under GATT Article XX, provided they are not arbitrarily or unjustifiably discriminatory, not disproportionately trade-restrictive, rationally related to their legitimate objective, and transparently set, with due regard to “due process” rights and cooperative obligations. Our hypothetical Act was designed with these requirements in mind.

However, in a real case, issues may arise that require decisions based on very fine technical and factual details specific to the dispute. This is particularly so if justification is sought under the GATT environmental exceptions. As discussed, a number of thorny issues may then arise regarding the extent

¹²⁵ *Ibid*, para. 159.

¹²⁶ “Calibration” represented the heart of the compliance assessment procedures in the *US – Tuna II (Mexico) 21.5* and *21.5 II* cases under the TBT Agreement. In those cases, the Appellate Body focused on whether the amendments brought by the US to its dolphin-safe labelling scheme were sufficient to address different risks of harming dolphins in different areas of the ocean. See *US – Tuna II (Mexico) 21.5* and *US – Tuna II (Mexico) 21.5 II*.

¹²⁷ Extensive systems have been identified by some studies as a bigger problem than industrial livestock (see Hayek et al. 2021). Yet most depend on the scope of the analysis (for example, if the land use change associated with imported fodder is accounted for or not). Cf IPES-Food 2022.

to which the measure is rationally related to its objective. This in light of contested views on the environmental impacts of different livestock farming systems, and considering possible trade-offs between animal welfare, climate change, and other environmental (and social) objectives. Questions may also arise as regards available alternative measures, in the context of a “necessity” test under GATT Article XX. These issues can only be resolved in a real case, in light of the facts of the dispute, the specific claims and arguments of the parties, and the type, quality, and quantity of the evidence produced by the defendant and the claimant. All this goes well beyond how far we can go in our present speculative exercise.

5.2. Questions under the TBT Agreement

As discussed, the Livestock Farming Act lays down technical specifications, conformity assessment procedures, and labelling requirements linked to livestock farming conditions. Such measures would have to comply with both the GATT and the TBT Agreement.¹²⁸ Relevant rules under the TBT Agreement include the “non-discrimination” (MFN and NT) rules under Article 2.1, the “necessity” rule under Article 2.2, and the “use of international standards” rule under Article 2.4 TBT Agreement. They are examined below with reference to our hypothetical case.

5.2.1. Non-discrimination

Article 2.1 of the TBT Agreement contains an MFN and an NT obligation.¹²⁹ This means that, with respect to technical regulations, WTO members cannot discriminate in favour of domestic products or in favour of specific groups of imported products. It is useful to recall how non-discrimination is assessed under the TBT Agreement, before turning to our specific case.

5.2.1.1. Non-discrimination test

The TBT Agreement does not prevent WTO Members from establishing distinctions between products according to sustainability criteria. Technical regulations “by their very nature, establish distinctions between products according to their characteristics or their related processes and production methods”.¹³⁰ What matters is that the specifications and procedures the Act sets forth are not discriminatory (Article 2.1 of the TBT Agreement: MFN and NT obligation) or, as we will see, are not unduly trade restrictive (Article 2.2 of the TBT Agreement: necessity rule).¹³¹

In adjudicating whether a measure violates the NT and MFN principles under TBT Article 2.1, a panel would examine three elements: whether the imported and domestic/other foreign products are “like”; whether the technical regulation at issue adversely affects the competitive opportunities of the imported product in the market vis-à-vis domestic products and/or other foreign products (“less favourable treatment”); and whether such impact stems exclusively from a legitimate regulatory

¹²⁸ Technical regulations have to meet the requirements of both the TBT Agreement and the GATT. This means that both the TBT and GATT apply, and should be interpreted harmoniously. In the event of a conflict, the provisions of the TBT Agreement shall prevail to the extent of the conflict. In practice, it is unlikely that a measure found consistent with the TBT Agreement will be found to violate the GATT.

¹²⁹ Article 2.1 of the TBT Agreement reads: “Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country”.

¹³⁰ *US – Clove Cigarettes*, AB report, para. 169 (notes omitted):

[...] A technical regulation is defined in Annex 1.1 thereto as a “[d]ocument which lays down product characteristics or their related processes and production methods ... with which compliance is mandatory”. As such, technical regulations are measures that, by their very nature, establish distinctions between products according to their characteristics or their related processes and production methods. This suggests, in our view, that Article 2.1 should not be read to mean that any distinction, in particular those that are based exclusively on particular product characteristics or their related processes and production methods, would per se accord less favourable treatment within the meaning of Article 2.1.

¹³¹ For a substantial analysis of TBT related panel decisions, see Howse and Levy 2013 and Marceau and Zoe 2013.

distinction.¹³² Some language in *US – Clove* seems to suggest that competition can be assessed in relation to a specific market segment, rather than the aggregate meat market as a whole.¹³³

Thus, non-discrimination under Article 2.1 of the TBT Agreement involves a determination of the nature and extent of a competitive relationship between and among the products at issue, as under the GATT.¹³⁴ However, following *US – Cool*, under the TBT Agreement “not every instance of a detrimental impact amounts to the less favourable treatment of imports”: if the adverse impact “stems exclusively from a legitimate regulatory distinction”, the measure does not violate the TBT non-discrimination rules, in case of *de facto* discrimination.¹³⁵

This means that if a panel determines that a technical regulation has an adverse impact on competitive opportunities for “like” imported products, the panel will need to assess if such detrimental impact reflects exclusively “a legitimate regulatory distinction”. If so, the regulation would be considered non-discriminatory. Following the Appellate Body in *US – COOL*, the regulatory distinction is “legitimate” if it “is designed and applied in an even-handed manner”.¹³⁶ In assessing “even-handedness”, a panel must “carefully scrutinize the particular circumstances of the case, that is, the design, architecture, revealing structure, operation, and application of the technical regulation at issue”.¹³⁷ As established in the *US – Tuna II (Mexico)* case compliance proceedings, the assessment will consider whether the differences in treatment (in our case, between meat from industrial and non-industrial systems) are “calibrated” to the different risks stemming from each situation (intensive industrial livestock versus extensive pastoralist systems). The “calibration” analysis under TBT Agreement Article 2.1 encompassed consideration of the rational relationship between the regulatory distinction and its objective – an issue discussed at some length in the context of our GATT analysis.

5.2.1.2. *Application to our case*

In light of the above, the technical regulations set forth in our hypothetical Act would likely comply with Article 2.1 of the TBT Agreement: MFN and TBT, *if* the adjudicator finds that the differential treatment of meat from different farming systems reflects legitimate public policy objectives under the TBT Agreement: human health or safety, animal life or health, and the environment.

As mentioned, the technical regulations seek to achieve legitimate sustainability objectives. The objectives pursued are legitimate *per se* under the TBT Agreement, being included in the non-exhaustive list of exemplary legitimate objectives in Article 2.2 of the TBT Agreement: necessity rule – protection of human health or safety, animal life or health, or the environment.

¹³² *EC – Seal Products*, panel report, paras. 7.131-7.132; *US – Cool*, AB report, para. 270-27.

¹³³ *US – Clove Cigarettes*, AB report, para. 142 (notes omitted):

We consider that, in order to determine whether products are like under Article 2.1 of the TBT Agreement, it is not necessary to demonstrate that the products are substitutable for all consumers or that they actually compete in the entire market. Rather, if the products are highly substitutable for some consumers but not for others, this may also support a finding that the products are like. In *Philippines – Distilled Spirits*, the Appellate Body considered that the standard of “directly competitive or substitutable” relating to Article III:2, second sentence, of the GATT 1994 is satisfied even if competition does not take place in the whole market but is limited to a segment of the market [...].

¹³⁴ *US – Clove Cigarettes*, AB report, para. 120.

¹³⁵ *US – COOL*, AB report, para. 271 (notes omitted):

If a panel determines that a measure has such [a detrimental] impact on imported products, however, this will not be dispositive of a violation of Article 2.1. This is because not every instance of a detrimental impact amounts to the less favourable treatment of imports that is prohibited under that provision. Rather, some technical regulations that have a *de facto* detrimental impact on imports may not be inconsistent with Article 2.1 when such impact stems exclusively from a legitimate regulatory distinction. In contrast, where a regulatory distinction is not designed and applied in an even-handed manner—because, for example, it is designed or applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination—that distinction cannot be considered “legitimate”, and thus the detrimental impact will reflect discrimination prohibited under Article 2.1. In assessing even-handedness, a panel must “carefully scrutinize the particular circumstances of the case, that is, the design, architecture, revealing structure, operation, and application of the technical regulation at issue.”

See also *US – Clove Cigarettes*, AB report, paras. 180-182 and 215; and *US – Tuna II (Mexico)*, AB report, para. 215.

¹³⁶ *US – COOL*, AB report, para. 271.

¹³⁷ *Ibid.*

As in the context of GATT Art. XX: General exceptions, an important element in the analysis of the “legitimate” policy rationale of the Swiss regulation is whether the regulation is even-handed and calibrated in such a way that there is no infringement on the non-discrimination principle. As discussed, the Act regulations are designed and applied in an even-handed manner: the requirements set in the Act are *per se* origin-neutral as they refer to the type of production method, rather than to a defined origin. Even more decisively, the Act requirements are not designed and applied such that only some countries/areas can de facto benefit from them. Instead, the standard-setting process established by the Act is context-sensitive, with variations in sustainability requirements based on legitimate socio-ecological criteria.

Some difficulties may arise when assessing whether the differences in treatment (in our case, between meat from industrial and non-industrial systems) are “calibrated” to the different risks stemming from each situation (intensive industrial livestock versus extensive pastoralist systems). In essence, what one essentially needs to show is that the means used are in a reasonable relationship to the goal and are able to contribute to it (*US – Tuna II (Mexico)* and compliance proceedings). A panel would need to assess the sustainability risks arising in different production systems (intensive v. extensive), and if the differences in treatment under the Act reflect different risks. As discussed, there are divergent scientific views on the issue, which may complicate the “calibration” analysis under Article 2.1 of the TBT Agreement.

5.2.2. Necessity/least trade restrictiveness

Let us assume that the technical regulations are found to be non-discriminatory under Article 2.1 of the TBT Agreement: MFN and NT. They would still need to comply with a second requirement: they should not be unduly trade restrictive.

Article 2.2 TBT Agreement: Necessity Rule requires that a measure “shall not be more trade restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create”. Based on established jurisprudence, the panel would consider a number of factors in assessing whether the technical regulation is “not ... more trade-restrictive than necessary” under Article 2.2 of the TBT Agreement: Necessity Rule. The assessment, as set in *Australia – Tobacco Plain Packaging*, would involve a “relational analysis of three factors”: “(i) the degree of contribution made by the measure to the legitimate objective at issue; (ii) the trade-restrictiveness of the measure, in light of alternative, less trade restrictive options; and (iii) the nature of the risks at issue”.¹³⁸ Eventually, to meet the “not ... more trade-restrictive than necessary” requirement, the Act regulations should pass a “necessity” test similar to that under GATT Article XX(b): General Exceptions.

As discussed in the previous analyses (see in particular section 5.1.3), the hypothetical Act combines restrictive and permissive elements. Its import/sale requirements set conditions that, by nature and effect, place limits on trade of conventional meat. In this respect, they are restrictive. However, they also set preferential market access conditions for sustainable meat – the only meat that can now enter in-quota. In this latter respect, they are *not* trade restrictive. To the contrary, they stimulate sustainable trade that would not otherwise occur. Overall, as discussed in section 3, the Act will neither decrease nor increase the pre-determined quantity of meat that can be imported into Switzerland in-quota. Instead, it will change its composition – from conventional to sustainable.

As regards the trade-restrictive aspects, the question is: Are the technical regulations more trade-restrictive than necessary, in light of the sustainability risks of conventional meat production and trade? In practice, a panel would consider if less trade-restrictive alternatives, such as voluntary certification schemes, are reasonably available to attain the same sustainability objective. As discussed, less-trade restrictive alternatives are available, but would not be equally efficient, which may justify the Act

¹³⁸ *Australia – Tobacco Plain Packaging*, panel report, paras. 7.31. See also *EC – Seals Products*, panel report, para. 7.355; *US – Tuna (Mexico) II*, AB report, para. 318.

regulations as “necessary”. We refer to the discussion held in the context of Article XX GATT (see above, section 5.1.3).

Questions remain over some perceived duplication or redundancy of measures with regard to the Act labelling scheme. As mentioned, non-conforming meat – i.e. meat which does not carry a certificate of origin from a listed country/validated sourcing area, or without a chain-of-custody certificate from an accredited voluntary scheme – is assumed to be produced unsustainably. It can only enter the Swiss market out-of-quota, at prohibitive import tariffs. Further, on the Swiss market, it should carry a label specifying that the meat comes from intensive production systems. Such labelling requirements apply on behalf of the final consumer in retail trade and in take-away outlets/restaurants. The labelling requirements for out-of-quota imports might raise specific challenges under the TBT Agreement. They add to prohibitive tariffs that hit non-conforming meat. Further, satisfactory compliance with the labelling requirements would involve substantial record keeping and documentation.

5.2.3. International standards

Another important question is whether or not the sustainability requirements of the Act are based on international standards. If they are in accordance with relevant international standards, they are presumed not to create unnecessary obstacles to trade (Article 2.4 TBT Agreement).

This begs the question of what is considered an international standard under the TBT Agreement. As mentioned, a standard within the meaning of the TBT Agreement is a document approved by a recognized body establishing guidelines for product characteristics and their related processes and production methods (TBT Agreement, Annex 1). Based on the *US – Tuna II (Mexico)* jurisprudence, a standard is qualified as international in the meaning of the TBT Agreement if it has been approved by “a body that has recognized activities in standardization”, whose membership is open to the standardizing bodies of all WTO Members.¹³⁹ When it comes to animal welfare, the WOAAH has taken a global leadership role in setting global animal welfare standards. Its *Terrestrial Animal Health Code* is an internationally recognized standard in the sense of the TBT Agreement: the WOAAH has a recognized standard-setting programme and its membership is open to the standardizing bodies of all WTO members. Standards and specifications of the private sector coexist with WOAAH standards. Such private certification schemes are international in the sense that they provide certification opportunities for producers in different countries, but the issuing organizations are generally private stakeholders and not standardizing bodies of different countries. They are not internationally recognized standards in the sense of the TBT Agreement.

That said, the question is: Are the Act technical regulations, standards, and compliance assessment procedures in accordance with relevant international standards?

From a procedural point of view, it can be confidently said that the Act equivalence procedures are in line with international standards. The Act defines the broad outline of the assessment process based on international guidelines for assessing equivalence of foreign standards and regulations (WTO TBT Agreement; Codex Alimentarius; FAO et al. 2012). Further, the Act promotes agroecological principles and practices endorsed by the FAO and the Committee on World Food Security and Nutrition (FAO 2018b; HLPE 2019), as discussed in section 2.4.3.

From a more substantial point of view, the Swiss regulation is benchmarked against the WOAAH five freedoms, which then provides a common set of reference objectives as a basis for equivalence. However, the Swiss regulation moves beyond the WOAAH standard on animal welfare since that standard does not adequately serve the objectives pursued by the Act. Indeed, the WOAAH standard covers and legitimizes multiple production practices, including large-scale and intensive systems where animals are kept in confinement.¹⁴⁰ Instead, the Act seeks to put an end to intensive livestock farming

¹³⁹ *US – Tuna II (Mexico)*, AB report, para. 359.

¹⁴⁰ The WOAAH Terrestrial Code is neutral as regards animal production systems. It endorses all types of production systems, including intensive farms for commercial beef cattle, completely housed system in broiler

in Switzerland and discourages meat imports sourced from intensive farms abroad. Note also that the WOH standard does not set any requirement in respect of animal density, which is an essential element of the Act. The base standard against which equivalence is assessed is then the Swiss regulation. Yet, as discussed, the Swiss regulation accepts variations in requirements, if based on legitimate criteria. Further, the standard-setting process links with networks and initiatives at the regional and multilateral level (see section 2.4.3). Overall, the Swiss regulations are framed in a context-sensitive and flexible way and do not have “coercive” effects on the policy discretion of other countries. This should be enough to satisfy the requirements of the TBT Agreement.

That said, it is important to stress that the TBT Agreement does not oblige countries to use international standards. Article 2.4 of the TBT Agreement, as interpreted in jurisprudence, allows for deviations. It states that (emphasis added), “*where relevant international standards exist, Members shall use them, or the relevant parts of them, as a basis for their technical regulations*”. Members shall not use them “*when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems*”. In *US – Cool*, for example, the Panel concluded that the Codex standard for the labelling of pre-packaged foods¹⁴¹ was an inappropriate means for the fulfilment of the objective pursued. It based its conclusion on the argument that the exact information that the United States wanted to provide to consumers, i.e. the countries in which an animal was born, raised, and slaughtered, could not be conveyed through this standard.¹⁴² The situation bears some resemblance with our hypothetical case.

5.2.4. ... to sum up

To summarize, the Livestock Farming Act, as designed, would *in principle* comply with the TBT substantive disciplines and procedural requirements, *if* the adjudicator recognizes the different sustainability impacts of intensive and extensive livestock systems, and *if* the adjudicator considers that less trade-restrictive alternatives are not as effective as the contested measure. In light of the different environmental impacts of intensive and extensive farming, the Act would pursue “legitimate” objectives specifically covered by the TBT Agreement: human health or safety, animal life or health, and the environment. Its technical regulations would not be discriminatory under the TBT, since their possible adverse trade impacts on “conventional” meat would exclusively stem from a legitimate policy rationale – without any protectionist intent. Further, as amply discussed, in our hypothetical case Switzerland does not require that foreign countries adopt its technical regulations and standards as a condition for in-quota access to the Swiss market. Instead, it sets context-sensitive procedures for the equivalence of standards that fully adhere to internationally agreed guidelines. The equivalence assessment process is linked to internationally agreed standards and grounded in context knowledge. Besides, the measures at issue would acknowledge the difficulties that developing country members face: the hypothetical Act integrates a technical assistance component through Switzerland’s technical assistance programme on Landscapes. Finally, in our hypothetical example, Switzerland took the necessary steps to incorporate the transparency processes of the TBT Agreements into the regulatory lifecycle of the Livestock Act: it notified concerned members, through the WTO Secretariat, of the proposed measures; it established a dedicated contact point and solicited comments on the proposed conformity assessment procedures; and it promptly published its regulations.

production, indoor systems in commercial pig production, and housed systems for dairy cattle. For details, WOH 2022, Vol. 1, Section 7.

¹⁴¹ CODEX STAN 1-1985 (Rev. 1–1991), Codex General Standard for the Labelling of Pre-packaged.

¹⁴² *US – COOL*, panel reports, paras. 7.728–7.736.

5.3. Questions under the AoA

For reasons of exhaustiveness, we also briefly consider some legal issues that could arise under the AoA. The analysis is provisional and requires more thorough examination of the technicalities involved.

5.3.1. Market access

The hypothetical Livestock Farming Act introduces new eligibility requirements and conditions for tariff quotas, not recorded in Switzerland's Schedule of commitments.¹⁴³ Do they conflict with the market-access disciplines laid down in Article 4.2 of the AoA?

Article 4.2 prohibits border measures other than tariffs. However, it does not apply to products designated as "special treatment" reflecting factors of non-trade concerns, such as food security and environmental protection.¹⁴⁴ Further, it does not apply to primary agricultural products under supply management domestically if "effective production-restricting measures" are applied to them.

Note also that if an import restriction is maintained under general GATT safeguards and exceptions, it is not covered by Article 4.2 of the AoA.¹⁴⁵

5.3.2. Direct payments to producers

As discussed, the Act envisages support measures for farmers. During the phase in period, they include transition payments to fund investment in animal-friendly husbandry systems and equipment. In the long run, they include "ecological" direct payments that compensate farmers for delivering animal welfare services. Will the Act payments give rise to conflict with WTO trade rules?

Under WTO rules, countries can extend direct payments to producers, if decoupled (i.e. not based on, or linked to, volume of production/price levels). The payments can be dependent on the fulfilment of specific conditions related to production methods (Annex 2 to the AoA – the "Green Box").

The Act payments would then be permitted under the Green Box. They would qualify under the Green Box as "decoupled income support" (para. 6), "structural adjustment assistance provided through investment aids" (para. 11), and "payments under environmental programmes". Switzerland would however need to notify them as Green Box subsidies.

5.3.3. Consumer subsidies

Likewise, "food stamp" subsidies would not give rise to conflict with WTO trade rules. As for producer subsidies, they are payments compliant with Green Box rules.

WTO rules allow countries to provide domestic food aid to sections of the population in need (Paragraph 4 of Annex 2 to the AoA – the "Green Box"). Eligibility to receive food aid must be subject to clearly-defined criteria related to nutritional objectives, which is the case in our example. Food aid can also take the form of money transfers to allow eligible recipients to buy food either at market or at subsidized prices. Food purchases by the government must be made at current market prices and the financing and administration of the scheme should be transparent. Switzerland would need to notify the expenditure on food stamps to the WTO as a Green Box subsidy.

¹⁴³ If recorded, they would figure in Part I, Section I-B of Switzerland's Schedule under the column "other terms and conditions".

¹⁴⁴ Such products are designated with the symbol "ST-Annex5" in Section I-B of Part I of a Member's Schedule annexed to the Marrakesh Protocol, as being subject to special treatment reflecting factors of non-trade concerns, such as food security and environmental protection.

¹⁴⁵ Footnote 1 to Article 4.2 of the AoA.

6. Summary of Key Findings: Policy Options under the Act

We designed the hypothetical Livestock Farming Act keeping in mind relevant constraints under WTO law. As argued throughout this paper, the hypothetical Act would stand WTO scrutiny, to the extent that the WTO adjudicator acknowledges the different sustainability impacts of different livestock farming models. Then, restrictions in the Swiss market on imported meat based on animal welfare standards and other sustainability criteria would not be *a priori* illegal under WTO law. They would pass on principle, provided a number of conditions are fulfilled to avoid the misuse of such measures for protectionist ends. Based on key cases (*Tuna – Dolphin II*, *US – Gasoline*, *EC – Seal Products*, *Shrimp – Turtle*), such conditions point to a number of key requirements as regards the design and implementation of the PPM measures. PPM measures, including unilateral restrictions, will pass on principle, upon the following conditions:

- They are rationally related to their legitimate policy objective, and “calibrated” to the sustainability risks involved;
- They are not coercive towards the policy decisions of other countries, nor applied such that only some countries/areas can *de facto* benefit from them, but rather flexibly designed to consider different situations in different countries;
- They are transparently set, as well as predictable and fair in their administration; and
- Cooperative solutions were at least sought, before resorting to unilateral trade measures, and technical and financial assistance is provided to developing countries in respect of their implementation.

In light of the above, the remainder of this section advances some concluding thoughts on the design and implementation of the hypothetical Livestock Act, and considers what would help mitigate the probability of a dispute, or most affect its outcome.

A) Design and structure of the measure

As discussed, the hypothetical Act sets sustainability requirements in the pursuit of legitimate public policy objectives under WTO law. In practice, it will be necessary to prove that there is a sufficient nexus between the measure and the interest protected. The outcome would depend on the type, quality, and quantity of the available evidence. Here we can only stress some general aspects.

If the Act is clearly designed and implemented domestically as a meat supply management scheme, it could be justified under the specific exception set in GATT Article XI:2(c), or under subparagraph (d) of GATT Art. XX. The Act should be consciously designed as aimed at reducing meat consumption in society.

If justification is sought on the basis of climate change concerns (relevant under GATT Article XX (g) or (b)), the Act should put enough emphasis on stringent requirements on livestock size and density, going beyond animal welfare criteria. Some animal welfare criteria are unrelated to GHG mitigation objectives, or not exempt from negative externalities from the perspective of GHG reductions (for example, guaranteed regular outdoor access). They may require separate justification on different grounds (e.g. protecting animal health/life, or on ethical grounds).

Public morals (GATT Art. XX (a)) have provided a rationale for (provisionally) justifying animal welfare regulations in the *EC – Seal Products* case. They may provide grounds for justification in our case. Yet, questions may arise regarding the existence of less trade-restrictive alternatives to meet public moral concerns, particularly in the form of positive labelling.¹⁴⁶ Further, the fact that a large majority of voters in Switzerland rejected a referendum motion to end factory farming in Switzerland does not support the ethical argument.

¹⁴⁶ This is, however, alleviated by the fact that the hypothetical Act is flexibly implemented at the border and does not entail an import ban.

Justification may still be sought under GATT Art XX (b) (the need to protect animal life and health). This will imply establishing a case that industrial farming, even if based on good veterinary practices, is incompatible with the well-being of animals.

B) Practical implementation

Turning to the practical implementation of the Act, the challenge is to avoid measures that, although origin-neutral on their face, are *de facto* discriminatory. Further, the differences in treatment (between different farming models in different places) must be “calibrated” to the different risks stemming from each situation. Particular attention should be given to the following aspects.

i) Flexibly craft sustainability requirements in context-sensitive ways and link import restrictions to requirements set forth in the exporting country. This should mitigate any contention that the Swiss regulations are extraterritorial measures that conflict with other developing countries’ sovereignty, or that they represent a form of protectionism. As mentioned, the hypothetical Act accommodates these concerns. For example, under the Landscape programme, import restrictions are linked to sustainability conditions set at the local level in the exporting country. However, it would not be enough to link with micro-interventions managed by communities – local initiatives would need to be officially endorsed within the framework of multi-stakeholder compasses involving private and public actors. This would require that Switzerland works in close cooperation with the governments of the countries concerned when “validating” sourcing areas under sustainable integrated management.

ii) Assess the different environmental impacts of different livestock farming systems in their context, and “calibrate” requirements accordingly. A key requirement under WTO law (GATT and TBT) is that differences in treatment of different farming methods are “calibrated” to the different sustainability risks stemming from each situation. It is important that the Act sets up procedures for a context-sensitive assessment of the sustainability risks/benefits of the farming models it favours, in their specific context.

ii) Ensure transparency and procedural fairness in the administration of trade regulations. In this respect, it will be important to: set transparent, predictable certification process open to all potentially qualifying members; set procedure for review of, or appeal from, a denial of an application; and avoid negotiating equivalence agreements with some, but not with other members where the same conditions exist.

iii) Link equivalence and accreditation of standards with technical assistance and transfers. It is important to proactively engage at local and governmental levels in developing partner countries to enhance technical and institutional capacities for implementing equivalence and accreditation under the Act. Equivalence initiatives should be part of a broader engagement to promote livestock’s potential to contribute to agroecological transitions in the global South. Relevant projects developed in partnership with researchers and local entities of the global South may focus on co-generation of evidence and knowledge, the piloting of technical and policy options, and the facilitation of multi-stakeholder partnerships and dialogue that brings small-scale livestock keepers and pastoral organizations to the front of decision-making.

iv) Link to relevant internationally recognized standards. As mentioned, the Act procedures are based on international guidelines for assessing equivalence of foreign standards and regulations (WTO TBT Agreement; Codex Alimentarius; FAO et al., 2012). Further, the Act promotes agroecological principles and practices endorsed by the FAO and the Committee on World Food Security and Nutrition (FAO 2018b; HLPE 2019). Its objectives are benchmarked against the WOAHS five freedoms, which provide a common set of reference objectives as a basis for equivalence.

Emphasis on the above aspects would reduce the likelihood of a PPM-related dispute.

List of cited cases

Argentina – Footwear (EC)	Appellate Body Report, Argentina – Safeguard Measures on Imports of Footwear, WT/DS121/AB/R, adopted 12 January 2000
Australia – Tobacco Plain Packaging	Panel Reports, Australia – Certain Measures Concerning Trademarks, Geographical Indications and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging, WT/DS435/R, WT/DS441/R, adopted 27 August 2018
Brazil – Retreaded Tyres	Appellate Body Report, Brazil – Measures Affecting Imports of Retreaded Tyres, WT/DS332/AB/R, adopted 3 December 2007
Canada – Autos	Panel Report, Canada – Certain Measures Affecting the Automotive Industry, WT/DS139/R, WT/DS142/R, adopted 19 June 2000, as modified by Appellate Body Report WT/DS139/AB/R, WT/DS142/AB/R
Canada – Herring and Salmon	GATT Panel Report, Canada – Measures Affecting Exports of Unprocessed Herring and Salmon, L/6268, adopted 22 March 1988
Canada – Ice Cream and Yogurt	GATT Panel Report, Canada – Import Restrictions on Ice Cream and Yogurt, L/6568, adopted 5 December 1989, BISD 36S/68
Canada – Periodicals	Appellate Body Report, Canada – Certain Measures Concerning Periodicals, WT/DS31/AB/R, adopted 30 July 1997
Canada – Wheat Exports and Grain Imports	Appellate Body Report, Canada – Measures Relating to Exports of Wheat and Treatment of Imported Grain, WT/DS276/AB/R, adopted 27 September 2004
China – Raw Materials	Appellate Body Report, China – Measures Related to the Exportation of Various Raw Materials, WT/DS394/AB/R, WT/DS395/AB/R, WT/DS398/AB/R, adopted 22 February 2012
Dominican Republic – Import and Sale of Cigarettes	Appellate Body Report, Dominican Republic – Measures Affecting the Importation and Internal Sale of Cigarettes, WT/DS302/AB/R, adopted 19 May 2005, DSR 2005:XV, 7367
EC – Asbestos	Appellate Body Report, European Communities – Measures Affecting Asbestos and Asbestos-Containing Products, WT/DS135/AB/R, adopted 5 April 2001
EC – Bananas III (Ecuador)	Panel Report, European Communities – Regime for the Importation, Sale and Distribution of Bananas, Complaint by Ecuador, WT/DS27/R/ECU, adopted 25 September 1997, as modified by Appellate Body Report WT/DS27/AB/R
EC – Sardines	Appellate Body Report, European Communities – Trade Description of Sardines, WT/DS231/AB/R, adopted 23 October 2002
EC – Seal Products	Panel Reports, European Communities – Measures Prohibiting the Importation and Marketing of Seal Products, WT/DS400/R and Add.1 / WT/DS401/R and Add.1, adopted 18 June 2014, as modified by Appellate Body Reports WT/DS400/AB/R / WT/DS401/AB/R
EC – Seal Products	Appellate Body Reports, European Communities – Measures Prohibiting the Importation and Marketing of Seal Products, WT/DS400/AB/R / WT/DS401/AB/R, adopted 18 June 2014
EC – Tariff Preferences	Panel Report, European Communities – Conditions for the Granting of Tariff Preferences to Developing Countries, WT/DS246/R, 1 December 2003
EEC – Bananas II	GATT Panel Report, EEC – Import Regime for Bananas, DS38/R, 11 February 1994, unadopted.
EEC – Dessert Apples	GATT Panel Report, European Economic Community – Restrictions on Imports of Dessert Apples – Complaint by Chile, L/6491, adopted 22 June 1989

EU – Energy Package	Panel Report, European Union and its member States – Certain Measures Relating to the Energy Sector, WT/DS476/R and Add.1, circulated to WTO Members 10 August 2018
India – Autos	Panel Report, India – Measures Affecting the Automotive Sector, WT/DS146/R, WT/DS175/R and Corr.1, adopted 5 April 2002
India – Quantitative Restrictions	Panel Report, India – Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products, WT/DS90/R, adopted 22 September 1999, as upheld by Appellate Body Report WT/DS90/AB/R
Indonesia – Import Licensing Regime	Panel Report, Indonesia – Importation of Horticultural Products, Animals and Animal Products, WT/DS477/R, WT/DS478/R, Add.1 and Corr.1, adopted 22 November 2017, as modified by Appellate Body Report WT/DS477/AB/R, WT/DS478/AB/R
Japan – Alcoholic Beverages II	Appellate Body Report, Japan – Taxes on Alcoholic Beverages, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, adopted 1 November 1996
Korea – Various Measures on Beef	Appellate Body Report, Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, WT/DS161/AB/R, WT/DS169/AB/R, adopted 10 January 2001
Mexico – Taxes on Soft Drinks	Panel Report, Mexico – Tax Measures on Soft Drinks and Other Beverages, WT/DS308/R, adopted 24 March 2006, as modified by Appellate Body Report WT/DS308/AB/R, DSR 2006:I, 43
Tuna-Dolphin (1991) (Tuna (Mexico))	GATT Panel Report, United States – Restrictions on Imports of Tuna, DS21/R - 39S/155, 3 September 1991, unadopted
Tuna-Dolphin (1994) (Tuna (EEC))	GATT Panel Report, United States – Restrictions on Imports of Tuna, DS29/R, 16 June 1994, unadopted
US – Clove Cigarettes	Appellate Body Report, United States – Measures Affecting the Production and Sale of Clove Cigarettes, WT/DS406/AB/R, adopted 24 April 2012, DSR 2012: XI, p. 5751
US – COOL	Panel Reports, United States – Certain Country of Origin Labelling (COOL) Requirements, WT/DS384/R, WT/DS386/R, adopted on 23 July 2012
US – COOL	Appellate Body Report, United States – Certain Country of Origin Labelling (COOL) Requirements, WT/DS384/AB/R, adopted 23 July 2012
US – COOL	Appellate Body Report, United States – Certain Country of Origin Labelling (COOL) Requirements – Recourse to Article 21.5 of the DSU by Canada and Mexico, WT/DS384/AB/RW / WT/DS386/AB/R, adopted 29 May 2015
US – Gambling	Appellate Body Report, United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, WT/DS285/AB/R, adopted 20 April 2005
US – Gasoline	Panel Report, United States – Standards for Reformulated and Conventional Gasoline, WT/DS2/R, adopted 20 May 1996
US – Gasoline	Appellate Body Report, United States – Standards for Reformulated and Conventional Gasoline, WT/DS2/AB/R, adopted 20 May 1996
US – Section 337 Tariff Act	GATT Panel Report, United States Section 337 of the Tariff Act of 1930, L/6439 - 36S/345, adopted 7 November 1989
US – Tuna II (Mexico)	Appellate Body Report, United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, WT/DS381/AB/R, adopted 13 June 2012 and subsequent case law
US – Poultry (China)	Panel Report, United States – Certain Measures Affecting Imports of Poultry from China, WT/DS392/R, adopted 25 October 2010
US – Shrimp	Panel Report, United States – Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS58/R and Corr.1, adopted 6 November 1998

US – Shrimp	Appellate Body Report, United States – Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS58/AB/R, adopted 6 November 1998
US – Shrimp (Article 21.5 – Malaysia)	Appellate Body Report, United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of the DSU by Malaysia, WT/DS58/AB/RW, adopted 21 November 2001

References

Ahmad, Z. (2021). The Prospects of Common Concern of Humankind in International Law. In Cottier, T. (ed.), *The Prospects of Common Concern of Humankind in International Law*, I-II. Cambridge, UK: Cambridge University Press.

Appleton, A. E. (1999). Shrimp/Turtle: Untangling the Nets, *Journal of International Economic Law*, 2 (3): 477–96.

Baumgartner, U., Bürgi Bonanomi, E. (2021). Drawing the Line between Sustainable and Unsustainable Fish: Product Differentiation That Supports Sustainable Development through Trade Measures, *Environmental Sciences Europe*, 33(1), 113.

Bernasconi-Osterwalder, N., Magraw, D., Oliva, M.J., Tuerk, E., & Orellana, M. (2006). *Environment and Trade: A Guide to WTO Jurisprudence*, 1st ed. London: Earthscan.

Bürgi Bonanomi, E. (2015a). *Sustainable Development in International Law Making and Trade: International Food Governance and Trade in Agriculture*. Cheltenham, UK; Northampton MA, USA: Edward Elgar Publishing.

Bürgi Bonanomi, E. (2015b). Sustainable Investment in Land in the Global South: What Would It Require from a Coherence Perspective? The Case of Sierra Leone, *QIL-Questions of International Law*, 21, 17–37.

Bürgi Bonanomi, E., Musselli, I. (2019). HRIA of Trade Agreements Involving Agriculture: Enabling Innovative Trade Options That Protect Human Rights. In Götzmann, N. (ed.), *Handbook on Human Rights Impact Assessment*, 219–237. Edward Elgar Publishing, 2019.

Bürgi Bonanomi, E., Tribaldos, T. (2020). PPM-based Trade Measures to Promote Sustainable Farming Systems? What the EU/EFTA-Mercosur Agreements Can Learn from the EFTA-Indonesian Agreement. In Bungenberg, M., Krajewski, M., Tams, C.J., Terhechte, J.P. & Ziegler, A.R. (eds), *European Yearbook of International Economic Law*, 359–385. Cham, Switzerland: Springer, Cham.

Bürgi Bonanomi, E., Jacobi, J. & Scharrer, B. (2018). Food Sustainability in Bolivia through Fair Food in Switzerland? How to Improve Food Sustainability in Both Countries through Sustainable Trade Relations, *Latin American Journal of International Trade Law*, 6(2), 27–65.

Chao, A., Thun, M. J., Connell, C. J., McCullough, M. L., Jacobs, E. J., Flanders, W.D., Rodriguez, C., Sinha, R. & Calle, E. (2005). Meat Consumption and Risk of Colorectal Cancer, *JAMA*, 293(2), 172–182.

Charnovitz, S. (2002). The Law of Environmental ‘PPMs’ in the WTO: Debunking the Myth of Illegality, *Yale Journal of International Law*, 27(1), 59–110.

Climate Analytics and NewClimate Institute (2021). *Global Update, Climate Target Updates Slow as Science Ramps up Need for Action*. Climate Action Tracker.

Conrad, C. R. (2011). *Process and Production Methods (PPMs) in WTO Law: Interfacing Trade and Social Goals*. Cambridge, UK: Cambridge University Press.

Cottier, T. (2015). *Renewable Energy and Process and Production Methods*. Geneva: International Centre for Trade and Sustainable Development, & World Economic Forum.

Cottier, T., Delimatsis, P., Gehne, K. and Payosova, T. (2011). Introduction. Fragmentation and Coherence in International Trade Regulation: Analysis and Conceptual Foundations. In Cottier, T., Delimatsis, P. (eds.), *The Prospects of International Trade Regulation: From Fragmentation to Coherence*, 1-66. Cambridge: Cambridge University Press.

Cottier, T., Holzer, K., Liechti, R. & Naef, T. (2013). Gutachten Zu Den Ökologischen Anforderungen an Das Inverkehrbringen von Produkten. University of Bern.

De Schutter, O. (2015). *Trade in the Service of Sustainable Development. Linking Trade to Labour Rights and Environmental Standards*. Oxford: Hart Publishing.

Eaton, D., Bourgeois, J. F. & Achterbosch, T. J. (2005). *Product Differentiation under the WTO; An Analysis of Labelling and Tariff or Tax Measures Concerning Farm Animal Welfare*. The Hague: Agricultural Economic Research Institute.

Ehring, L. (2001). *De Facto Discrimination in WTO Law: National and Most-Favored-Nation Treatment—Or Equal Treatment?* Jean Monnet Working Paper No. 12/01.

Espinosa, R., Tago, D. & Treich, N. (2020). Infectious Diseases and Meat Production, *Environmental & Resource Economics*, 76(4), 1019–1044.

European Commission (2021). Executive Summary of the Impact Assessment Report: Minimising the Risk of Deforestation and Forest Degradation Associated with Products Placed on the EU Market., Commission Staff Working Document No. SWD(2021) 327 final. Brussels: European Commission.

European Commission (2022). Application of EU Health and Environment Standards to Imported Agricultural and Agri-food Products. Report from the Commission to the European Parliament and the Council Document COM(2022) 226 final.

FAO (Food and Agriculture Organization of the United Nations) (2018). *Livestock and Agroecology: How They Can Support the Transition towards Sustainable Food and Agriculture*. Rome: FAO.

FAO (Food and Agriculture Organization of the United Nations) (2018b). *The 10 Elements of Agroecology: Guiding the Transition to Sustainable Food and Agriculture Systems*. Rome: FAO.

FAO, IFOAM, and UNCTAD (2012). *Guide for Assessing Equivalence of Organic Standards and Technical Regulations (EquiTool)*. UNCTAD, FAO & IFOAM, 2012 (EquiTool ver. 2) <http://www.fao.org/3/an905e/an905e00.pdf>

Federal Department of Home Affairs (2017). *Swiss Nutrition Policy 2017-2024*. Bern, Switzerland: Federal Food Safety and Veterinary Office.

Feskens, E. J., Sluik, D. & van Woudenberg G.J. (2013). Meat Consumption, Diabetes, and Its Complications, *Current Diabetes Reports*, 13(2), 298–306.

Foltea, M. (2012), *International Organization in Dispute Settlement, How Much Institutional Sensitivity?* Cambridge, UK: Cambridge University Press.

Franc, A. (2022). The Development NGO as Special Interest Group: Does the Sustainability Narrative Lead to Agricultural Protectionism? [NRP 73 Project ‘Sustainable Trade Relations for Diversified Food Systems’].

Freeman, O., Duguma, L. & Minang, P. (2015). Operationalizing the Integrated Landscape Approach in Practice, *Ecology and Society*, 20(1), 24.

Gerber, P.J., Steinfeld, H., Henderson, B., Mottet, A., Opio, C., Dijkman, J., Falcucci, A. & Tempio, G. (2013). *Tackling Climate Change through Livestock – A Global Assessment of Emissions and Mitigation Opportunities*. Rome: FAO.

Gliessman, S. (2011). Transforming Food Systems to Sustainability with Agroecology, *Journal of Sustainable Agriculture*, 35(8), 823–825.

Hayek, M., Helen H., Ripple, W. J. & Mueller, N. D. (2021). The Carbon Opportunity Cost of Animal-sourced Food Production on Land, *Nature Sustainability*, 4, 21-24.

HLPE (High Level Panel of Experts on Food Security and Nutrition) (2019). Agroecological and Other Innovative Approaches for Sustainable Agriculture and Food Systems That Enhance Food Security and Nutrition. A Report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome.

Hockenheim, M. (2006). Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law. Report of the Study Group of the International Law Commission. UN Document A/CN.4/L.682, 13 April.

Holzer, K. (2014). *Carbon-Related Border Adjustment and WTO Law*. Northampton, MA: E. Elgar.

Howse, R. (2012). Regulatory Measures. In Daunton M., Narlikar, A. & Stern, R. (eds.), *The Oxford handbook on the World Trade Organization*, 441–460. Oxford, UK: Oxford University Press.

Howse, R., Langille, J. (2012). Permitting Pluralism: The Seal Products Dispute and Why the WTO Should Permit Trade Restrictions Justified by Noninstrumental Moral Values, *37 Yale Journal of International Law*, 37, 367-432.

Howse, R., Langille, J., & Sykes, K. (2015). Pluralism in Practice: Moral Legislation and the Law of the WTO after *Seal Products* (April 1, 2015), *The George Washington International Law Review*, 48, 81-150.

Howse, R., Levy, P.I. (2013). The TBT Panels: US-Cloves, US-Tuna, US-Cool, *World Trade Review*, 12(2), 327-375.

Howse, R., & Neven, D. (2003). US - Shrimp: United States - Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, *World Trade Review* 2 (S1): 41–71.

Hudec, R. (1998). GATT/WTO Constraints on National Regulation: Requiem for an Aim and Effects Test, *International Lawyer*, 32(3), 619–649.

International Law Commission (2006). Conclusions of the Work of the Study Group on the Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law. A/61/10 *Yearbook of the International Law Commission*, 2006, II, Part Two.

International Law Commission (2015). Second Report on the Protection of the Atmosphere by Shinya Murase, Special Rapporteur. A/CN.4.681, 25 – 49.

IPES-Food (2022). The Politics of Protein: Examining Claims about Livestock, Fish, ‘Alternative Proteins’ and Sustainability.

Jackson, J. (1992). World Trade Rules and Environmental Policies: Congruence or Conflict? *Washington and Lee Law Review*, 49(4), 1227–1278.

Jacobi, J., Toledo, D., Solar, J., Bürgi Bonanomi, E. (forthcoming, 2022). Prospects and Challenges of Participatory Guarantee Systems for Organic Certification of Bolivian Agri-food Products [NRP 73 Project ‘Sustainable Trade Relations for Diversified Food Systems’].

Jones, B. A., Grace, D., Kock, R., Alonso, S., Rushton, J., Said, M. Y., McKeever, D., Mutua, F., Young, J., McDermott, J. & Pfeiffer, D. U. (2013). Zoonosis Emergence Linked to Agricultural Intensification and Environmental Change, *Proceedings of the National Academy of Sciences*, 110(21), 8399–8404.

Lester, S., Leitner, K. Dispute Settlement Commentary, European Communities – Asbestos (Appellate Body Report) 14 (2001), available at <<http://www.worldtradelaw.net/dscsamples/index.htm>>

Loi, A., Esposti, R., Gentile, M., Bruni, M., Saguatti, A., Berisio, S. & Cuppari, L. (2016). *Policy Evaluation of Tariff Rate Quotas*, Report mandated by the Swiss federal Office of Agriculture. Areté srl.

Lydgate, E. (2011). Consumer Preferences and the National Treatment Principle: Emerging Environmental Regulations Prompt a New Look at an Old Problem’, *World Trade Review*, 10(2), 165–188.

Maggio, A.R. (2017). *Environmental Policy, Non-Product Related Process and Production Methods and the Law of the World Trade Organization*. Cham, Switzerland: Springer.

Mann, S. (2021). Why Governments Should Tax Animal Production: A System Approach to Internalize the Externalities of Agriculture, *International Journal of Sustainable Economy*, 14(3), 2194–308.

Marceau, G., Zoe, G. (2013). The New TBT Jurisprudence in US – Clove Cigarettes, WTO US – Tuna II, and US-Cool, *8 Asian Journal of WTO & International Health Law and Policy*, 8(1), 1ss.

Maas, C. (1996). Should the WTO Expand GATT Article XX: An Analysis of United States - Standards for Reformulated and Conventional Gasoline, *Minnesota Journal of International Law*, 5 (2): 415–40.

Mathijs, E. (2015). Exploring Future Patterns of Meat Consumption, *Meat Science*, 109, 112–116.

Meyer-Ohlendorf, N., Gerstetter, C. (2009). Trade and Climate Change: Triggers or Barriers for Climate-Friendly Technology Transfer and Development?, Dialogue on Globalization Occasional Paper No. 41. Berlin: Friedrich-Ebert-Foundation.

Milder, J. C., Hart, A. K., Dobie, P., Minai, J. & C. Zaleski (2014). Integrated Landscape Initiatives for African Agriculture, Development, and Conservation: A Region-Wide Assessment, *World Development*, 54, 68–80.

De Schutter, O. (2015). *Trade in the Service of Sustainable Development. Linking Trade to Labour Rights and Environmental Standards*. Oxford: Hart Publishing.

OECD (Organisation for Economic Co-operation and Development)] (1997). *Process and Production Methods (PPMs): Conceptual Framework and Considerations on Use of PPM-based Trade Measures*. Paris: OECD.

Pauwelyn, J. (2003). *Conflict of Norms in Public International Law: How WTO Law Relates to Other Rules of International Law*. Cambridge, UK: Cambridge University Press.

Pauwelyn, J. (2007). *U.S. Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law*. Working Paper No. NI WP 07-02. Nicholas Institute for Environmental Policy Solutions.

Potts, J. (2008). *The Legality of PPMs under the GATT: Challenges and Opportunities for Sustainable Trade Policy*. Winnipeg, MB: International Institute for Sustainable Development.

Quick, R. (2000). The Community’s Regulation on Leg-Hold Traps: Creative Unilateralism Made Compatible with WTO Law through Bilateral Negotiations?, In Bronckers, M., Quick, R. (eds), *New Directions*

in *International Economic Law: Essays in Honour of John H. Jackson*, 239–257. The Hague: Kluwer Law International

Quick, R., Lau, C. (2003). Environmentally Motivated Tax Distinctions and WTO Law: The European Commission's Green Paper on Integrated Product Policy in Light of the 'Like Product-' and 'PPM-' Debates', *Journal of International Economic Law*, 6(2), 419–458.

Sejian, V., Lakritz, J., Ezeji, T. & Lal, R. (2011). Assessment Methods and Indicators of Animal Welfare, *Asian Journal of Animal and Veterinary Advances*, 6, 301–315.

Sieber-Gasser, C. (2021). Flexibility in International Economic Law vs. *Pacta Sunt Servanda*: Maintaining Legitimacy over Time. In Sieber-Gasser, C., Ghibellini, A. (eds), *Democracy and Globalization: Legal and Political Analysis on the Eve of the 4th Industrial Revolution*, 1–18. Springer

Sifonios, D. (2018). *Environmental Process and Production Methods (PPM) in WTO Law*. Cham, Switzerland: Springer.

Sifonios, D., Ziegler, A. (2020). "Tuna Dolphin Forever"? The Development of the PPM Debate Related to Trade and Environment in the WTO, *Indian Journal of International Economic Law*, 12, 106-133.

Średnicka-Tober, D. et al. (2016). Composition Differences between Organic and Conventional Meat: A Systematic Literature Review and Meta-analysis, *The British Journal of Nutrition* 115(6), 994–1011.

Study Group of the International Law Commission. (2006). *Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law*. Report of the Study of the International Law Commission A/CN.4/L.682. International Law Commission.

Swiss Federal Council (2021). *2030 Sustainable Development Strategy*. Bern, Switzerland.

Swiss Federal Food Safety and Veterinary Office (2017). *Swiss Nutrition Policy 2017–2024*. Bern, Switzerland.

Swissinfo (2018). Does Switzerland Produce Half of All the Food It Needs? September 11. https://www.swissinfo.ch/eng/politics/fact-check_does-switzerland-produce-half-of-all-the-food-it-needs-/44380058

SwissInfo. (2022). Voters Reject Ethical Overhaul of Animal Farming Rules. September 25. <https://www.swissinfo.ch/eng/politics/animal-welfare-and-swiss-meat-eating-habits-up-for-public-vote/47921262>

Trachtman, J. P. (2017). WTO Trade and Environment Jurisprudence: Avoiding Environmental Catastrophe, *Harvard International Law Journal* (Harvard Law School), 58(2), 1–38.

Tribaldos, T., Kortetmäki, T. (2022). Just Transition Principles and Criteria for Food Systems and Beyond, *Environmental Innovation and Societal Transitions*, 43, 244–256.

UNEP (United Nations Environment Programme) (2019). *Collaborative Framework for Food Systems Transformation. A Multi-stakeholder Pathway for Sustainable Food Systems*. United Nations Environment Programme.

Willer, H., J. Trávníček, J., Meier, C. & B. Schlatter, B. (eds.) (2021). *The World of Organic Agriculture 2021: Statistics and Emerging Trends* (FiBL). IFOAM – Organics International and FiBL

WOAH (World Organization for Animal Health) (2022). *Terrestrial Animal Health Code (2022)*. <https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/>

Working Party on Border Tax Adjustment (1970). Border Tax Adjustment. Report of the Working Party adopted on 2 December 1970. Document L/3464, BISD 18S/97.

WTO (World Trade Organization) (2017). *Trade Policy Review. Report by the Secretariat. Switzerland and Liechtenstein*. WTO Doc. WT/TPR/S/355, 11 April.

WTO (World Trade Organization) and UNEP (United Nations Environment Programme) (2009). *Trade and Climate Change. WTO-UNEP Report*. Geneva: World Trade Organization.