Discussion paper on the political economy of trade regimes

MATS Deliverable 4.3

MATS
making agricultural trade sustainable

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Summary

This discussion paper focuses on the *political economy of agrifood trade*, drawing from the 15 MATS case studies (CS). It highlights commonalities and differences in the light of relevant SDG, the EU Green Deal, other Standards and Regulations, and of Actor/Stakeholder inclusiveness in each CS. A grid of trade and other policies and instruments along these parameters shows their expected sustainability results, positive and negative, across the CS.

Human and natural resources availability, market signals, societal demands, cultural priorities, and sustainability concerns act as the prime motivators for operator decisions. Trade policy instruments are among the most important government tools, acting at the end of the food value chains (VC) 'from farm to fork'. These instruments, in turn, shape the policy framework for inputs, energy, production, processing, investment, wholesale and retail trading locally, and for exports, marketing, consumption, and recycling. Notwithstanding the probability of unintended (unexpected) consequences, one would hope that the collective costs of not making the framework effective would outweigh the smaller short-term gains of gaming this process.

We find that 'more sustainable agricultural trade' can result from what could also be called 'smarter' (or 'greener'), and enforceable, policymaking. Clearly, the success of these policies in delivering these benefits will depend not only on their effective implementation, but also on independent, in-built *ex ante/ex post* monitoring, impact assessment, and adaptation where necessary – especially for SMEs, women, and the more vulnerable market participants. Public engagement and inclusiveness will also be crucial to achieve the desired outcomes. Making agricultural trade more sustainable requires a specific combination of nudging, incentives, mandatory and voluntary standards, and import prescriptions. The progressive implementation of some of the new European Green Deal (and FF55) regulatory instruments can provide a useful impetus as well, together with foreign policies and development policy changes introduced by the European Commission and Member States. This could go for all MATS partner countries, in appropriate ways, and provided that development-friendly European regulations can be expected to bring about tangible social, economic, and environmental benefits for all.

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[1] R = Report, P = Prototype, D = Demonstrator, O = Other

[2] PU = Public, CO = Confidential, only for members of the consortium (including the Commission Services)

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Acronyms

AfCFTA	African Continental Free Trade Area Agreement
AoA	Agreement on Agriculture (WTO)
ARSO	African Organization for Standardization[3]
AU	African Union (formerly OAU)
BCA	Border Carbon Adjustments (e.g. 'cap-and-trade')
CAP	Common Agricultural Policy (EU)
COMESA	Common Market for Eastern and Southern Africa
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation (ICAO)
CS	(MATS) Case Studies (https://sustainable-agri-trade.eu/#)
CSO	Civil Society Organisations
DC, LDC	Developing Countries, Least Developed Countries
Due Diligence	Here: part of the EU Green Deal
EAC	East African Community
EBA	Everything but Arms trade preference Scheme (EU)[4]
EP, EC, Council	(European) Parliament, Commission, Council
ETS	Emissions Trading System (here: EU)
European Green Deal	Cf. 'Legislative Train Schedule' Package[5]
Fit For 55	Here: part of the EU Green Deal
FDI	Foreign Direct Investment
Forced labour	(EU) regulation proposal[6]
GHG	Green House Gases[7]
IACO	Interafrican Coffee Organization[8]

[3] Formed by OAU (currently AU) and UNECA in 1977 in Accra (Ghana), since 1981 headquartered at the Kenya Bureau of Standards in Nairobi (Kenya). An intergovernmental, non-profit-making regional association of African national standard bodies. Harmonisation of African standards has been championed through ARSO, with more than 1485 NBS standards harmonized. Cf. https://www.arso-oran.org/ and https://www.arso-oran.org/?page_id=64

[4] Cf. https://trade.ec.europa.eu/access-to-markets/en/content/everything-arms-eba

[5] EUR-Lex Sources (links as of 15 November 2023):

- Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, *The European Green Deal* (COM/2019/640 final, dated 11 December 2019), at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019DC0640. The *European Green Deal* is regularly updated at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019DC0640
- For *Due Diligence* cf. https://www.europarl.europa.eu/legislative-train/search?keywords=due+diligence
- For *FF55* and *'Guidelines'* cf. https://www.europarl.europa.eu/legislative-train/package-fit-for-55

[6] Cf. : https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2023)739356

[7] Cf. Doha amendment to the Kyoto Protocol, December 2012, Article 1, Paragraph B

[8] Intergovernmental organization comprising the twenty five African coffee producing countries. According to the Nairobi Declaration, dated 7 December 1960, IACO 'seeks to marshal a consensus declaration of inclusion of coffee as an anchor commodity in Africa Union (AU)'. Annual Meetings. No website.

IATP	Institute for Agriculture and Trade Policy[9]
IBRD	International Bank for Reconstruction and Development
ICAO	International Civil Aviation Organization
ICO	International Coffee Organization
IFDA	Investment Facilitation for Development Agreement (WTO Project)
IFI	International Finance Institutions (IBRD, IMF, ADB, NDB etc.)
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
MFN	Most Favoured Nation (for all imports from WTO Members)
MEA	Multilateral Environment Agreements (e.g. Montreal Agreement)
MRA	Mutual Recognition Agreement
NDB	New Development Bank (BRICS)
NDC	Nationally Determined Contributions (UNFCCC)
NT	National Treatment (equal treatment of imported and domestic products)
NTM / NTB	Non-Tariff Trade Measures / Non-Tariff Trade Barriers
OAPI	Organisation Africaine de la Propriété Intellectuelle (https://ig-oapi.org/)
ODA	Official Development Assistance (https://www.oecd.org/)
PPM	Production and Processing Methods
REC	Regional Economic Agreement (e.g. EAC, SADC and ECOWAS, altogether 8 RECs mentioned in the AfCFTA)
RTA / FTA / EPA / TSD / DCFTA	Regional Trade Agreements / Free Trade Agreements / Economic Partnership Agreements (new EU treaties: with Trade and Sustainable Development Chapters: TSD) / Deep and Comprehensive FTAs (EU)
SADC	Southern African Development Community
SDG	Sustainable Development Goals (https://sdgs.un.org/)
SDT / GSP	Special & Differential Treatment / Trade Preferences
TFEU / TEU	Treaty on the Functioning of the European Union + Treaty on European Union = Lisbon Treaty (http://data.europa.eu/eli/treaty/lis/sign)
UNFCCC	United Nations Framework Convention on Climate Change[10]
VC	Value Chain
VPA	Voluntary Partnership Agreements (here: for deforestation, with the EU)
WTO	World Trade Organization

[9] Minneapolis, Washington, D.C.; Berlin (https://www.iatp.org/)
[10] More precisely, the UNFCCC comprises the Bali Action Plan (2007), the Copenhagen Accord (2009), the Cancún agreements (2010), and the Durban Platform for Enhanced Action (2012).

1. Introduction

The objective of MATS is to describe and to analyse efforts to make agrifood trade more 'sustainable' in all respects of this term. In this paper, we rely on the already available series of deliveries from our fifteen CS, with analytics and intervention proposals. Many of our CS start with production and investment patterns, and producer sustainability concerns. Here, we look at the questions and issues from the end of the food VC: the social, economic and environmental problems and benefits of sustainable trade. This leads us to the sustainability provisions contained, especially, in the trade and investment arrangements (EPA/TSDs, GSP and EBA conditions) relevant for EU member states and some of the MATS CS countries. Many EU trade related measures (on due diligence, deforestation, forced labour, CBAM etc.) target production and trade. Understanding the production patterns therefore becomes more relevant in countries wishing to maintain, or gain, EU market access.

To analyse the political economy of trade regimes is a complex and ever-evolving field. As there is no single theory that can explain all the factors that influence the political economy of agrifood trade regimes, we have chosen only the ones most relevant for MATS. Political economy implications of agricultural trade policies are complex and intertwined with global agri-food value chain issues; the implications vary depending on the specific policy, the countries involved, and the political context. (Anderson, Rausser, Swinnen, 2013; Baker, Lacy-Nichols, Williams, Labonté 2021; Brooks, 1995; Resnick, Vos, Martin, 2023; Swinnen, 2018; Swinnen, Olper, Vandevelde, 2021) The crucial element of our analysis is how, and on what pathways, policies impact trade sustainability.

This paper assesses these issues empirically, for the agrifood sector, for local and global agri-food value chains, being grounded in the 15 in-depth country, regional and product MATS CS. The paper has the following structure:

The remainder of *Section 1* introduces the political economy of trade regimes and narrows down the scope for MATS.

Section 2 of this paper reviews the relevant Trade regimes and Policy instruments. It starts with terminological considerations, Tariffs, Non-tariff measures (NTMs), and Production and processing methods (PPMs) (a), and describes the main actors involved (b). We then look at the Pathways for

change proposals (c) and the Political economy implications of these instruments (d). This leads to a Summary of our general and specific Research Questions for the CS (e).

Section 3 starts with the implementation difficulties in MATS-relevant SDGs (a) and discusses whether the sustainable investments are lacking (b) or of the wrong type (c) under an SDG/MATS perspective (d). We add climate risk insurance as a particularly interesting new tool for specifically agricultural development issues (e).

Section 4 discusses the two hottest issues for Africa along the so-called 'EU Legislative Train Schedule': CBAM (a) and Deforestation (b). Progressive implementation is a very important challenge, and threshold, for our environmental sustainability assessments, including in MATS countries with substantial exports to Europe.

Section 5 discusses (non-EU) national, international or specifically African sustainability standards, whether public or private. We start with CS dealing with locally sold products and/or main exports to non-EU markets (a). We then look at two sustainability standards of both policymakers and stakeholders, namely transports (b) and environmentally harmful ("DeTox") subsidies (c).

Section 6 discusses the different interest groups (a) and their role (b) in the most important national and regional trade regulations described in our CS.

This paper's main challenge is to describe, to compare and to find the commonalities and the differences in respect of the different trade regimes and products relevant for the different countries and products in the CS, listed in *Table 1*. This is our *Section 7*, with the most important trade policies and instruments identified in each case study, and our expected impact assessment for sustainable agricultural trade (*Table 2*).

We summarise the political economy implications for MATS in our findings and conclusions (*Section 8*). Our conjecture is that more sustainable agrifood trade is possible with a variety of adequately combined, and implemented, 'smart' policy changes – with or without EU and other exogenous influences.

The political economy of trade regimes refers to the study of how political and economic factors interact to shape a country's trade policies. It involves an analysis of the *decision-making processes, interests, and power dynamics*

that influence a nation's approach to international trade. (Martin 2015) Key aspects relating to the political economy of trade regimes include, for example:

- *Economic interests* where governments, industries, and interest groups often have varying interests in liberalizing trade, protecting the internal market.
- *Political considerations* where political officials make trade-related decisions that can be influenced by domestic political dynamics, public opinion, and the need to secure electoral support.
- *Interest groups*, such as labor unions, agricultural organizations, and business associations, exert pressure on governments to pursue trade policies that respond to their specific interests.
- The political economy of trade regimes is closely tied to *globalization.* Increased integration of world markets has led to both opportunities and challenges for countries and operators. Hence, trade policies must address global agrifood VC issues (Swinnen et al., 2021), and specific issues related to the production and movement of goods, services, capital, and labour across borders. (Baldwin 2016)
- When farmers move from food to cash crops, poverty and labour dynamics present special challenges in a trade liberalisation context. Trade policies must ensure that globalisation benefits all market participants. The *Multidimensional Poverty Index* and the *Extreme Deprivation Index* can help measuring the impact of agricultural growth on poverty in rural areas. (Illien et al. 2023)
- Trade regimes involve decisions regarding *tariffs* (duties and taxes on imported goods) and *non-tariff barriers* (regulations, standards, and quantitative restrictions). The choice of trade policy tools can be influenced by a country's economic and political goals (Bown 2015).

In MATS, we concentrate on the sustainable development aspects of trade policy. Trade policies have evolved over time and new topics and instruments have emerged in the political economy of trade. (Bown 2015) We thus need to narrow down the most relevant components for MATS: which political economy components are relevant for sustainable development and agricultural trade?

To answer this question, we look at the following **Key Factors**:

- **The distribution of benefits and costs from trade.** Trade regimes are more likely to be adopted when the benefits of trade are widely distributed, the costs are concentrated and can be assessed effectively (e.g. internalized via carbon taxes). (Weitzmann 2015)

- **The power of interest groups.** Interest groups that benefit from trade are more likely to lobby for trade liberalisation, while interest groups that are harmed by trade are more likely to lobby for protection.

- **The political institutions of the country.** Democracies are more likely to adopt trade liberalisation than authoritarian regimes.

- **The international context.** The global economy can also influence the design of trade regimes. For example, the rise of China as a major economic power has led to calls for more protectionism in the United States and in Europe.

2. Main components in Trade regimes and Policy instruments

Sustainability looks at all relevant conditions of agricultural trade in goods and services; this includes short-/long-term trade-offs. For our political economy analysis, we start with the three most important trade regime components all along the food VC: tariffs, *non-tariff measures*, and *production and processing methods* (PPM) (a). Operators, actors, and stakeholders co-determine (to different degrees) the formulation and implementation of these instruments, through the 15 CS (b). This provides us with a framework to examine trade policy instruments in our CS which could increase sustainability in agrifood trade, as recently proposed by James Harrison (2023) (c).

A word on the definition of 'actors' and 'stakeholders': MATS is committed to engagement and interaction with relevant stakeholders. Looking for inclusiveness in decision-making is key to more sustainable trade. Different CS use different names for involved (or excluded) interest groups (cf. Table 2). In this paper, we use the definition introduced at the inception of MATS:

> (i) 'Actors' are individuals, organizations or institutions that operate within our object of study, being the agricultural trade regimes and policies at the private sector, national, EU, African and global levels.
>
> (ii) 'Stakeholders' are those actors that potentially have an interest in and thus a stake in our project's output. A limited amount of actors are thus stakeholders, but all stakeholders are actors.[11]

a) Main trade regime factors: Tariffs, NTM, PPM

1. Looking, first, at **tariffs**, we note that in most countries, MFN customs duties for agricultural imports ('bound' in WTO Schedules, or 'applied' *erga omnes* at a lower level and notified to the WTO) remain relatively high in comparison with those of many industrial goods. (OECD 2023c) In RTAs, including EPAs, agreed 'preferential' import tariffs can be considerably lower than MFN levels, although sometimes for restricted quantities only.[12] On the one side, RTAs such as EPAs may expose African producers to

[11] D6.2 updated Enhanced Engagement Strategy @ https://zenodo.org/records/8043876
[12] Of the 53 RTAs examined in a previous OECD analysis, more than 90% of agricultural tariff lines were scheduled to be duty-free when the agreements were fully implemented

competition from Europe.[13] On the other side, African producers exporting under EPAs will lose preferences and (perhaps) face new competitors every time the EU concludes a new RTA, for instance with a Latin American or Asian developing country. Some preferential tariffs exist without quotas, especially for LDCs. Customs authorities may also apply autonomously reduced, seasonal and other forms of tariffs – and import safeguards. In our study, we compare the import tariffs presently applied for the products and in the countries of our CS. At the same time, we must be mindful of the institutional weaknesses of customs authorities, not only in developing countries, and of the improvement possibilities through modern big data management. (Anouche and Boumaaz 2019)

2. Secondly, imports for all agricultural products can henceforth only be subject to tariffs (AoA-Art.4.2).[14] However, despite the NT obligation to not discriminate imports in any other way, agrifood producers still face numerous regulatory hurdles applicable *mutatis mutandis* to all imports, namely, **non-tariff measures** such as *sanitary and phytosanitary measures* and *technical barriers to trade*.[15] This paper does not discuss WTO compatibility of specific NTMs. However, some such NTMs do work like trade barriers (NTB), arguably with a bigger trade impact than tariffs. Most important here are EU and other **import standards**, including private standards, and mandatory and voluntary **sustainability labels**. Some CS look at NTM impacting on sustainable agrifood trade, regardless of their classification as NTM or NTB in academic assessments or in trade disputes.

3. Special attention for all sustainability questions is called for policy instruments used to differentiate between different PPMs. This seems to be easy for, say, 'small farmers', 'women farmers', or 'organic' production. Our

[13] The EU grants 100% duty-free quota-free access to imports from EPA partners, against 80% of duty-free tariff lines in African partner countries. OECD-IDB, 2010[7]
[14] This does not exclude so-called 'tariff-rate quotas' (TRQ), under which certain quantities of an agricultural product are subject to low or zero duties. What matters here, for 'easy' market access, is the period during which the TRQ applies. Sylvia Kay, for instance, notes that "[s]ometimes EU protectionism takes the form of frustratingly simple things such as the fact that periods during which Tunisian products are granted privileged access to the EU market under a customs quota arrangement do not synch up with their production cycle in Tunisia. For example, in the case of watermelons, the main growing season is between June and September, yet the EU only grants duty-free imports between November and May." (Kay 2023)
[15] In MATS and for the purposes of this discussion paper, we understand non-tariff measures as regulations that govern, in particular, environmental or social sustainability.

paper also looks at 'sustainable' PPMs in some of the new EU initiatives (with a clear trade impact). Hence, for the so-called **'non-product related' PPMs**, sustainability considerations often start with farming conditions, input and investment regulations, and various subsidies. The dilemma here is that some PPMs present legal issues undecided by case law in WTO, untested under the EU judiciary, extensively but inconclusively debated in the scholarship, and undefined both in MEAs and in the UNFCCC – yet unavoidable for our examination.

b) Main Actors

As in other political economy analyses, the role of various actors is a central component of each trade regime. While in MATS we focus on trade (not on production), the impact of a 'trade regime' often applies 'from farm to fork'. This means that we must look at all food producer-induced trade aspects, for instance on the promotion of agroecology (IATP, 2023) or of better labour standards (Lamp, 2019; 2023; Häberli, 2017). According to WTI scholars, a trade 'regime' thus involves all relevant actors along the whole food value chain (Cottier, Elsig and Wehrli, 2012).

MATS 'Actors' and their different roles vary in our CS. In *Section 6* we will describe the relevant actors and their specific role for national, regional and international developments.

c) What Pathway for Proposed Changes?

For each CS we have to, first, identify the framework of national and international public acts (laws, regulations, treaties, investment contracts etc.) relevant for the sustainability of trade – including trade and investment distortions and their impact. Second, we look at their implementation by regulators, administrators and courts, again at national or international levels. Thirdly, each CS shows the challenge, for operators and regulators to find, and apply, improved production and trade standards – especially for 'non-product related ppm'.

According to Christophe Bellmann (IISD) 'Governments have a range of options for harnessing trade policies to promote sustainable production and trade and discourage unsustainable practices. While many of these options can be implemented unilaterally, effective solutions to deal with transboundary environmental challenges will require multilateral approaches.' Bellmann discusses four such options: (i) Border measures (ii) Economic incentives

(subsidies for domestic producers) (iii) Regulatory measures of a voluntary or mandatory nature targeting both domestic producers and imports (iv) International support measures. (Bellmann 2023)

In reality, policymakers and stakeholders in (small) developing countries may not find what Bellmann calls 'a range of options' to deal with measures taken by their trading partners with the purpose of promoting sustainability at home without disadvantaging their producers against lower standard imports. A case in point are the so-called *cap and trade* schemes. According to the World Bank, there now are 73 BCA or ETS, with a bewildering and still increasing variety of forms and purposes. (World Bank 2023) Aaron Cosbey and Ieva Baršauskaitė (IISD) discuss the challenges this represents for policymakers in (small) developing countries. (IISD 2023a) So far, efforts to harmonise (mostly unilateral) standards have failed. So have WTO rules preventing distortions of conditions of competition. This limits the choices these governments need to make and the options they have, to maintain market access for their exports. Alan Matthews has thus suggested a basically equivalent series of measures preventing carbon leakage, rather than a CBAM copy-cat in African countries. (Matthews 2022)

In Section 4(a) we discuss the EU's CBAM and its potential impact on MATS countries.

Standards, and PPMs, matter at every level and along the whole food VC.[16] The policy toolset further includes (mandatory and voluntary) Labels, Prohibitions, and Import and Export Restrictions. On this pathway, producer, trader and consumer acceptance, viability, and competitiveness, play an important role. (Grebitus 2016, Peschel 2016)

There are international government agreements at three levels which could shape sustainable agrifood trade.

1. The key multilateral trade agreement, especially for NTM disagreements, is the WTO. Its procedures determine the (narrowly defined) compatibility of governmental sustainability claims, measures and standards with WTO Law.[17] Non-discrimination can stand in the way of 'climate smartness' and the obligation to differentiate imports according to PPM with more or less climate footprints, environmental, biodiversity, plastics pollution or social

[16] For the EU, see Henig (2023a)
[17] Cf. Henig (2023b)

and labour impacts.[18] The main WTO issues for African agriculture have been very well-described by tralac (2017).

2. Regional agreements also regulate inter-continental agrifood trade. For economic **EU-Africa relations**, the recently concluded EPA with Kenya is considered by the European Commission as a milestone for others to follow despite some reservations by other East African Community (EAC) countries which belong to LDCs and can still enjoy (preferential, not treaty-based) access to the EU market under the EBA framework.[19] Possibly even more important in terms of trade liberalization is the **US-Kenya FTA** under negotiation – including for GMO maize.[20] This does not mean approval or disapproval by MATS, or that African countries should consider the EPAs and the European Green Deal as their template just for the benefit of better market access which compliance would bring along. For example, Sylvia Kay sees substantial disadvantages arising from EU RTAs for Tunisian farmers.[21] (Kay 2023)

3. For intra-African trade promotion, African treaties and organisations also play their role. The AfCFTA can be considered as an emerging 'African trade regime' with its own set of mainly economic priorities: a counter-project to EU, USA and other treaties, and not unlike the WTO with a clear quantitative trade growth emphasis (i.e., without stringent environmental and social guidelines for the time being). Katrin Kuhlmann and Akinyi Lisa Aguti (2020) see a 'new normative approach to trade and development' in AfCFTA, pointing out to the specific needs of African agriculture, for instance in the field of genetic resources, traditional knowledge and indigenous rights, where WTO rules and other treaties were never 'sufficiently operationalized': 'The AfCFTA is likely to become a platform for legal

[18] For a non-critical review of the 'Three WTO Environment Initiatives' see IISD (2022). For CAPA, a new Biodiversity-for-Agriculture initiative, see Section 6(b) *infra*.
[19] Cf. DG Trade, Key elements of the EU-Kenya Economic Partnership Agreement, available on 8 July 2023 at https://policy.trade.ec.europa.eu/news/key-elements-eu-kenya-economic-partnership-agreement-2023-06-19_en
[20] "In August 2018, President Donald J. Trump and President Uhuru Kenyatta established the U.S.-Kenya Trade and Investment Working Group to explore ways to deepen the trade and investment ties between the two countries and lay the groundwork for a stronger future trade relationship." (Quote from the USTR Factsheet "U.S.-Kenya Trade and Investment Relationship" dated February 2020, retrieved on 23 October 2023 at https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2020/february/fact-sheet-us-kenya-trade-and-investment-relationship)
[21] "While EU companies have flooded the Tunisian market with EU-made products, Tunisian farmers have struggled to compete with their EU counterparts, not least due to the ways in which the EU continues to protect its domestic agricultural sector." (Kay 2023)

change in this area, building upon domestic and international law both within and outside of the international trade space.'[22] Possibly even more important, given the absence of competition rules in the WTO, are the new AfCFTA provisions trying to regulate intra-African competition. Back in 2003, Shyam Khemani had addressed the challenges posed by more dominant larger firms that are able to exercise their buying power to affect prices and other market conditions especially in developing countries. (UNCTAD 2003a)

d) Political Economy Implications

The political economy implications arising from our CS for more sustainable agrifood trade explain how a chosen (trade) policy instrument impacts the agrifood sector or how it contributes to making agricultural trade more sustainable or if it fails to contribute to sustainability. The institutional, legal and regulatory frameworks of WP4 shape the political economy of relevant trade regimes.

1. Historical and Sectoral Context: Agriculture has a complex regime with both upstream elements (e.g., inputs, production, labour and environmental conditions) and downstream parameters (e.g. marketing, wholesale, retail, consumption, waste disposal). Looking only at border crossing rules is simply not sufficient for our analysis. Add, along the whole food VC, food security, intellectual property and climate footprint, and you get an almost unmanageable job for this study.

2. International Legal Context: first and foremost, the Paris Climate Agreement. (UNFCCC 2016, Bodansky 2021) Secondly, other UN treaty texts (FAO, ILO, UNCTAD), WTO and other trade and investment treaty rules. One of the best 'lenses' analysing national agricultural climate mitigation policies are the periodic OECD Reports.[23] This matters for EU Green Deal

[22] Op.cit. p. 32. The three IP treaties quoted are the
(1) Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79.
(2) Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity to the Convention on Biological Diversity, Oct. 29, 2010, UNEP/CBD/COP/DEC/X/1.
(3) International Treaty on Plant Genetic Resources for Food and Agriculture, Nov. 3, 2001, 2400 U.N.T.S. 303.

[23] The most recent Agricultural Policy Monitoring and Evaluation Report contains a comprehensive stocktaking of nearly 600 agricultural climate change adaptation programmes and activities across the 54 countries covered in that report. The same chapter also discusses how agricultural support policies influence the ability of farmers to adapt to climate change. (OECD 2023d, Chapter 1)

and other proposals, for African regulators, EPAs, and for the AfCFTA, together with a couple of REC developments. In the field of intellectual property, there might be the wide-ranging (but mostly francophone) OAPI, or the above-quoted ITPGRFA.[24]

3. Development impact: We will discuss the differences between MATS and relevant SDGs in Section 3, with different weighting and differing indicators for our CS.

4. Disruptions: Some of our CS address abrupt policy changes, environmental, economic and social change impacts. We ask what lessons can be learned from disruptions in Section 6b.

e) Research Questions addressed by Case Studies

Under our political economy analysis of the pertinent drivers and obstacles in trade regimes, and of the different positions and trends in trade relations, our *General Research Questions* are the following:

1. What are the most relevant trade regimes and policy instruments used for making agricultural trade more sustainable?

2. Do these policy instruments impact the economy along the entire food VC, and how?

3. Which are the main SDG and their Indicators appearing in the CS?

4. Which Green Deal and FF55 policies and measures are or may have an impact on non-EU MATS countries' production, investment, and trade?[25]

5. Which other national and international standards, African treaty provisions, production and processing methods, and consumption patterns, are a part of the *political economy toolbox* of this policy framework?

[24] International Treaty on Plant Genetic Resources for Food and Agriculture (Nov. 3, 2001, 2400 U.N.T.S. 303)

[25] Quote from the Green Deal objectives (Introduction, Para 5): "The drivers of climate change and biodiversity loss are global and are not limited by national borders. The EU can use its influence, expertise and financial resources to mobilise its neighbours and partners to join it on a sustainable path. The EU will continue to lead international efforts and wants to build alliances with the like-minded. It also recognises the need to maintain its security of supply and competitiveness even when others are unwilling to act."

6. Which interest groups (CSO, lobby groups, political actors shaping state and producer decisions, private and voluntary standards), address present and emerging issues?

We expect cross-country and cross-commodity answers to some of the following specific questions - depending on where CS find commonalities and differences, and depending on the role EU imports play a role for a specific country and commodity.

1. Which sustainability objectives and standards apply? Social, Environmental and Economic Sustainability achieved or achievable? (Or: does EU member state Y apply or intend to apply, Green Deal obligations, perhaps finding exports to Africa or to the Americas getting more difficult with new production constraints?)

2. Might [coffee/cocoa/beef/soybean etc] production involve new deforestation, more child labour, or present conflicts with other Green Deal Regulations?

3. Will producers face new difficulties in compliance with EU import regulations and standards, including by providing geostrategic information e.g. for CBAM (as from 1st October 2023!)?

4. What is the price for – or the advantage of – non-compliance with export market standards?

The Case Study Reports describe the relevant trade regime elements. In this paper we provide a preliminary summary answer to these specific questions. This synopsis provides us with a red thread through the maze of priorities and concerns. Our 'threads' are the most relevant SDGs and their Indicators, as well as the Green Deal/FF55 and other international or unilateral standards, and their different impacts on trade regimes (Sections 3-5). On this basis we develop a grid table showing the different issues and countries together with their respective SDG and indicators (Section 7, Tables 1 and 2).

3. MATS-relevant SDGs and Indicators

The MATS Website has a (still evolving) list of relevant SDGs. Altogether, there are 17 Goals, with 169 Targets and 269 Indicators. The most important Goal for MATS, of course, is SDG2 ('End Hunger'). But each CS analyses their findings and proposals according to their specific objectives.

As shown by our CS, agricultural sustainability is a complex issue. The *Global Indicator Framework* for the SDGs, and the targets of the 2030 Agenda for Sustainable Development are ambitious, inclusive, and very elaborate.[26] Unfortunately, progress analysis is often difficult because of a lack of binding and comparable NDC.

The following Excursus Table shows, for just five CS, that the number of relevant *Goals* varies widely (from 1 to 16). For four CS, the number of relevant *Indicators* ranges from 8 to 15; CS8 lists (partly overlapping) Indicators in four groups and adds another 49 indicators as "additionally relevant".

[26] As shown here, on 13 August 2023: https://unstats.un.org/sdgs/indicators/indicators-list/

TABLE. EXCURSUS: EXAMPLES OF RELEVANT SDGS AND INDICATORS

CS# + SDGs	Indicators
CS6 Cocoa and chocolate purchasing practices in West Africa **SDGs 1, 2, 5, 8, 10, 15**	1.1.1 Proportion of the population living below the international poverty line by sex, age, employment status and geographic location (urban/rural) 2.a.1 The agriculture orientation index for government expenditures 2.b.1 Agricultural export subsidies 2.1.2 Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES) 2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size 2.3.2 Average income of small-scale food producers, by sex and indigenous status 5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and non -discrimination on the basis of sex 5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure 8.3.1 Proportion of informal employment in total employment, by sector and sex 8.4.1 Material footprint, material footprint per capita, and material footprint per GDP 8.4.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP 8.5.1 Average hourly earnings of employees, by sex, age, occupation and persons with disabilities 10.1.1 Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population 10.2.1 Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities 15.3.1 Proportion of land that is degraded over total land area
CS7 Local dairy value chains in West Africa **SDGs 1, 2, 8, 10, 12, 15**	1.1.1. Proportion of the population living the international poverty line, by sex, age, employment status and geographic location (urban/rural). 2.1.2. Prevalence of moderate or severe food insecurity in the population 2.3.2. Average income of small-scale food producers, by sex and indigenous status. 2.3.1. Volume of production per labour unit by classes of farming/pastoral/forestry/enterprise size. 2.b.1. Agricultural export subsidies 8.5.2. Unemployment rate, by sex, age and persons with disabilities 10.1.1. Growth rate of household expenditure or income per capita among the bottom 40 per cent of the population and the total population 10.2.1. Proportion of people living below 50 per cent of median income, by sex, age and persons with disabilities. 12.7.1. Degree of sustainable public procurement policies and action plan recommendations 15.3.1. Proportion of land that is degraded over total land area.
CS8 Belgian imports of ethanol from sugar cane **SDGs 1, 2, 3, 4, 5, 6, 7, 8 (main relevant for CS8), 9, 10,**	Market and Economy Indicators: 2.3.2 Average income of small-scale food producers, by sex and indigenous status 2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size 10.a.1 Proportion of tariff lines applied to imports from least developed countries and developing countries with zero-tariff 17.11.1 developing countries and least developed countries' share of global exports Human Dimension: 2.1.2 Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES) 1.1.1 Proportion of the population living below the international poverty line by sex, age, employment status and geographic location

11, 12, 13, 15, 16, 17	(urban/rural) 2.2.2 Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight) 16.1.1 Number of victims of intentional homicide per 100,000 population, by sex and age (OR) 16.1.3 Proportion of population subjected to (a) physical violence, (b) psychological violence and (c) sexual violence in the previous 12 months Natural Capital Indicators: 15.3.1 Proportion of land that is degraded over total land area 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources 8.4.1 Material footprint, material footprint per capita, and material footprint per GDP Policy, Governance & Regulation Indicators: 2.b.1 Agricultural export subsidies 2.a.2 Total official flows (official development assistance plus other official flows) to the agriculture sector 16.5.2 Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official or were asked for a bribe by those public officials during the previous 12 months. Social Dimension Indicators: 5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure 8.3.1 Proportion of informal employment in total employment, by sector and sex 8.8.2 Level of national compliance with labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status 16.7.2 Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group 16.3.3 Proportion of the population who have experienced a dispute in the past two years and who accessed a formal or informal dispute resolution mechanism, by type of mechanism Additionally relevant indicators: 1.4.2 Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and by type of tenure 2.3.2 Average income of small-scale food producers, by sex and indigenous status 2.4.1 Proportion of agricultural area under productive and sustainable agriculture 2.5.2 Proportion of local breeds classified as being at risk of extinction 2.b.1 Agricultural export subsidies 3.3.5 Number of people requiring interventions against neglected tropical diseases 3.5.2 Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol 3.6.1 Death rate due to road traffic injuries 3.9.1 Mortality rate attributed to household and ambient air pollution 3.b.3 Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis 3.c.1 Health worker density and distribution 4.a.1 Proportion of schools offering basic services, by type of service 5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex [PRODUCER AND CONSUMER] 5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than

	an intimate partner in the previous 12 months, by age and place of occurrence [PRODUCER] 5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location [PRODUCER] 5.5.1 Proportion of seats held by women in (a) national parliaments and (b) local governments 5.5.2 Proportion of women in managerial positions 5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure [PRODUCER] 5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control [PRODUCER] Clean Water and Sanitation 6.1.1 Proportion of population using safely managed drinking water services 6.2.1 Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water 6.6.1 Change in the extent of water-related ecosystems over time 6.b.1 Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management 7.1.1 Proportion of population with access to electricity [CONSUMER] 7.3.1 Energy intensity measured in terms of primary energy and GDP [CONSUMER] 8.3.1 Proportion of informal employment in total employment, by sector and sex 8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities 8.7.1 Proportion and number of children aged 5-17 years engaged in child labour, by sex and age 8.8.1 Fatal and non-fatal occupational injuries per 100,000 workers, by sex and migrant status 8.8.2 Level of national compliance with labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status 9.1.2 Passenger and freight volumes, by mode of transport [CONSUMER] 9.4.1 CO_2 emission per unit of value added [CONSUMER: including scope 1, 2 and 3] 10.3.1 [16.b.1] Proportion of population reporting having personally felt discriminated against or harassed within the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law 11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities [CONSUMER] 11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically [PRODUCER] 11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted) 11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months [PRODUCER AND CONSUMER] 12.3.1 (a) Food loss index and (b) food waste index 13.2.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications, as reported to the secretariat of the United Nations Framework Convention on Climate Change [SDG14 Life below water None] 15.6.1 Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits 16.1.1 Number of victims of intentional homicide per 100,000 population, by sex and age 16.1.3 [] Proportion of population subjected

	to (a) physical violence, (b) psychological violence and (c) sexual violence in the previous 12 months 16.3.3 Proportion of the population who have experienced a dispute in the past two years and who accessed a formal or informal dispute resolution mechanism, by type of mechanism 16.5.2 Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months 16.6.1 Primary government expenditures as a proportion of original approved budget, by sector (or by budget codes or similar) 16.7.1 Proportions of positions in national and local institutions, including (a) the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups 16.7.2 Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group 16.10.1 Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months 10.3.1 [16.b.1] Proportion of population reporting having personally felt discriminated against or harassed within the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law 17.11.1 Developing countries' and least developed countries' share of global exports
CS9 Human rights due diligence in the coffee value chain **SDG 1, 2, 5, 6, 8, 17**	1.1.1 Proportion of the population living below the international poverty line by sex, age, employment status and geographic location (urban/rural) 2.1.2: Prevalence of moderate or severe food insecurity in the population, based on the Food. Insecurity Experience scale (FIES). 2.3.2 Average income of small-scale food producers, by sex and indigenous status 2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size 5.a.1 (b) share of women among owners or rights-bearers of agricultural land, by type of tenure 5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources 8.3.1: Proportion of informal employment in total employment, by sector and sex 17.11.1 Developing countries' and least developed countries' share of global exports
CS12 Ethical Trade Initiatives for South African Wine **SDG8**	1.1.1 Population % below the international poverty line 1.3.1 Proportion of population covered by social protection floors/systems) 2.3.1 Production per labour unit 2.3.2 Average income of small-scale food producers, by sex and indigenous status 5.a.1 Ownership or secure rights over agricultural land) 8.5.2 Unemployment rate) 8.8.2 Increase in national compliance of labour rights (freedom of association and collective bargaining) based on ILO standards and national legislation 10.a.1 Tariff lines applied to imports from LDC and DC with zero-tariff 17.11.1 Developing countries' and LDC shares of global exports

In order to better analyse sustainability progress, and without detailed knowledge of recent MATS country climate intentions and commitments, we first look at the 2023 SDG Summit and the conclusions reached at this half-

way self-assessment, namely for SDG 2 (End Hunger) (a). We then summarise CS findings in respect of SDG-related Investment issues, Targets, and Fair trade (b). Finally, we look at a few new, efficient climate risk insurance tools (c).

a) The present state of SDGs

First, the good news. On the side of the commitments, the *SDG Partnership Platform* established by the United Nations Department of Economic and Social Affairs (UN-DESA)[27] shows an encouraging review process, with voluntary reviews, stakeholder participation, and even a few critical academic contributions. A first Trade vs. SDG 2 analysis has been presented in 2018 by Shenggen Fan et al. from IFPRI and CGIAR (2018). These authors focus on various domestic policy measures and on the contribution of a more transparent and equitable trade for the fulfilment of SDG 2.1 and 2.2.

The EU is committed to reinforcing its own efforts to make progress in delivering, notably, SDG 2. The European Commission (EC) used the *Modular Applied GeNeral Equilibrium Tool* (MAGNET) to examine the impact of global change on food and nutrition security, and the implications of a shift towards a more bio-based economy and environmental trade and agricultural policy reform scenarios.[28]

Secondly, the good but 'old' news: the most important *Millennium Development Goal* for MATS (MDG 1: 'Eradicate extreme poverty and hunger') has been achieved! World hunger was more than halved between 2000 and 2015. (UN-DESA, 2015) However, the impact of COVID-19, and a major civil war, resulted in reversals of earlier successes in some African countries such as Ethiopia.

Finally, and returning to SDG 2, we must recognise that the two relevant SDG Indicators 2.1.1 [*Prevalence of Undernourishment* (PoU)] and 2.1.2 [*Prevalence of moderate or severe food insecurity in the population*, based on the *Food Insecurity Experience Scale* (FIES)] show that *'[t]he world is not on track to achieve Zero Hunger by 2030*. If recent trends continue, the number

[27] UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS HOME PAGE, https://sdgs.un.org/.
[28] UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, SDG GOOD PRACTICES - A COMPILATION OF SUCCESS STORIES AND LESSONS LEARNED IN SDG IMPLEMENTATION 9 (2020), https://sdgs.un.org/publications/sdg-good-practices-2020.

of people affected by hunger would surpass 840 million by 2030.'[29] (emphasis added)

The 2023 **UN Summits Week** confirmed these trends.[30] Its **Climate Ambition Summit** included a plenary session showcasing "first mover and doer" leaders (excluding EU + USA but hearing the German Chancellor). After three thematic sessions and a special meeting on loss and damage finance, it declared a collective will to accelerate the pace and scale of a just transition to a more equitable renewable-energy based, and a climate-resilient global economy.

The following **IISD Bulletin** added in its own *'Brief Comment'* that 'the assessment today is dire: we are not even close to being on track towards reaching the Goals.' Progress on more than half of SDG targets is weak and insufficient and progress on a number of others has stalled. Some in the sustainable development community tend to emphasize that the Sustainable Development Goals (SDG) were always meant to be 'aspirational.' Even so, the fact that progress is literally reversing on a number of Goals, including key targets on poverty and hunger, leaves no doubt about the collective failure to live up to the Agenda's objectives. The same goes for climate action: GHG emissions are still rising along with governments' spending on fossil fuel subsidies, and adaptation efforts are insufficient to deal with the mounting climate impacts destroying livelihoods and taking lives around the world. The COVID-19 pandemic and Russia's war against Ukraine surely complicated matters. But we were not on the right track even before 2020. (IISD 2023c; emphasis added)

Moreover, the two main MATS-relevant SDG Indicators 2.1.1 [Prevalence of Undernourishment (PoU)] and 2.1.2 [Prevalence of moderate or severe food insecurity in the population] show that Zero Hunger by 2030 appears as an empty promise. Compared with the MDG success when world hunger was halved, this would seem to be a very sobering case of reality denial (cf. Section 3(a)). The SDG commitments do not outline specific efforts and targets. Nevertheless, the SDG Summits and the verification process – which includes

[29] *Food Coalition: A Covid-19 Response*, FAO (2021), http://www.fao.org/food-coalition/en/.
[30] More than 290 Heads of State and Government and other high-level dignitaries participated in the SDG Summit and the Climate Ambition Summit that convened from 18-20 September 2023 at UN Headquarters in New York.

a ratchet clause - do show a pathway on how to handle the respective commitments.

Is the implementation of SDG 2 (and others) hampered by a lack of (sustainable) agricultural investment? Given that Africa is the world's largest cereals importer from outside the continent, this question deserves attention throughout our 15 CS.

Unfortunately, without reliable SDG data we cannot yet see how this lack of agricultural investment affects African self-reliance efforts and food security for all and, consequently, its capacity to End Hunger. In any case, ODA seems not to have brought about a FDI increase in sustainable agricultural projects. (Tian 2023)

b) Investment issues, MATS Targets and Fair trade

SDG attainment requires investments. In a 2023 Policy Paper, the OECD points out that lacking domestic or foreign investments are a major issue, even though Adaptation Policies to Foster Resilience exist without FDI. (OECD 2023a)

The UNCTAD *SDG Investment Trends Monitor* published at the midpoint of the 2030 Agenda notes, for 2022, an increase of international SDG-relevant investments in developing countries by 15%, mostly for energy transition and infrastructure projects; agrifood systems received -11% (SDG1, 2 and 13). Investments in LDC decreased by 9%, receiving the smallest ever share of SDG-relevant investment projects within the overall developing countries group, a drop from 6.4% in 2021 to 5.1% in 2022. The annual SDG investment gap for developing countries to 2030 is now about $4 trillion. According to UNCTAD's meta-study review, if the SDG investment needs are to be met by 2030, about $30 trillion of additional investments are to be found over the next eight years. (UNCTAD 2023c)

The most recent *World Investment Report* notes that,

'Food price inflation and the impact of the war in Ukraine on commodity prices have exacerbated food insecurity in developing economies, especially in some of the poorest and most vulnerable countries. *Significant investment in transforming agrifood systems is needed also for climate change adaptation*. However, *international investment in agriculture and the agriculture VC* (including, among others, basic ag-

ricultural production; food processing; the production of seeds, fertilizers and pesticides; and related technology and R&D activities) *has been stagnant since the adoption of the SDGs*.'

'In LDCs, investment in the agrifood systems sector increased (table I.15). The LDC share in the number of greenfield projects in developing countries almost doubled; however, *LDCs attracted only 3 of the 20 – on average much larger – international project finance deals in developing countries*.' (UNCTAD, 2023b – emphasis added)

Perhaps noteworthy in this context is the conclusion, on 6 July 2023, of the talks on the text for a WTO *Investment Facilitation for Development Agreement* (IFDA). Rashmi Jose (IISD) argues that, without becoming part of a broader set of multilateral rules on investment, an IFDA could facilitate the flow of FDI especially to developing and least developed members, to foster sustainable development governance at the WTO. (Jose 2023)

Investment in developing countries' agriculture, especially in African LDCs, is seriously lagging behind. This is a cause for high concern, as shown in research for 'cleaner' investments in Africa. (Aust, Morais, and Pinto 2020)

Especially poor farmers lack resilience tools that can enhance farm productivity and ensure that production is doubled or even tripled from the same land area without the need to clear forests/vegetation as part of farm area expansion. This is ably demonstrated in »CS4 whereby cassava production per unit area in Tanzania can be quadrupled by using sub-soiling equipment during land preparation.

Agriculture in developed and advanced developing countries increasingly enjoys financial, credit, insurance, and other risk management buffer-tools. At the same time, poor states cannot even provide the necessary instruments, research and development services to the weakest fragment of their society. As a result, e.g., the lack of adequate storage, including cold chain control for cash crops, can oblige smallholders to sell their products before, or soon after harvest, i.e., when prices are low. In addition, lack of transportation and road infrastructure makes it difficult for smallholders to reach markets for their cash crops or their temporary food crop surpluses.[31] Moreover, there is a gender issue here too. Whereas rural women are frequently the sole producers and income providers in their families, their access to credits and

[31] CFS Voluntary Guidelines on Food Sytems and Nutrition, Committee on World Food Security, FAO (2021), http://www.fao.org/fileadmin/templates/cfs/Docs2021/Documents/CFS_VGs_Food_Systems_and_Nutrition_Strategy_EN.pdf

inputs may be especially difficult, because the few instruments and capital endowment schemes available to poor men fail to consider gender specificities.

In the absence of sufficient agrifood investment levels, required for SDG fulfilment especially in poor African countries, can our CS find some examples of 'fair trade' investments and projects?

Six Case Studies look at fair trade (FT) conditions:

»CS1 (Coffee in Uganda and Tanzania) observes that the main FT certification schemes operating in Tanzania are Organic, Fairtrade, C.A.F.E Practices by Starbucks, Utz Certified and Rainforest Alliance. Certification schemes ensure that coffee sourced is healthy and sustainably grown. Information concerning fair-trade standards were gathered from both estate coffee producers and smallholder farmers. Fair trade programs were expected to provide guidance and ultimately benefits to small-holder farmers by making consumers pay price premiums to promote social and economic change and environmental sustainability. However, these programs frequently rest on a lack of understanding of production realities thus resulting in a gap between the countries that produce and those that consume. Lack of transparency and information asymmetry are some of the factors inhibiting the realization of the benefits of fair-trade programs by smallholder farmers and hence they gain limited consideration for human rights at the lower end of the coffee VC and also fail to enjoy the benefits of digitization in a modern world. Moreover, CS1 found that estates understand labour rights to be one of their main agenda in day-to-day operations, and that this is crucial to enhance employees' willingness to be committed to their work, and to deliver the required output in the farms and processing units. Likewise, all staff members are informed that it is their duty to safeguard labour rights in order to comply with international and national standards and guidelines; that the maximum working hours for employees is 8 hours per day; that employees in plantations have freedom of association (On the side of smallholder farmers, the practice is different because these own small plots.) Health and safety practices were fully observed by all the estate farms. The government, through OSHA, undertakes regular checks of employees working conditions in the farms and factories, all of which compels the estates management to ensure that working conditions are good all the time to avoid penalties. This includes provision of protective clothing, gloves, boots and dust masks to workers.

»CS4 (Agrifood Exports in Tanzania, Ethiopia, Uganda, and Ghana) sees the cocoa institutional set-up more advanced in meeting with WTO and EU trade conditions. Cocoa smallholder farmers in Ghana get relatively better structured support from government compared to counterparts in Uganda (banana), goats (Ethiopia) and Tanzania (cassava). Commodity Board in Ghana is only for cocoa. Cocoa more advanced in meeting WTO and EU trade conditions. Ethiopia (goats) and Tanzania (cassava) initial successes in getting new overseas buyers in the Middle East and China, respectively where import procedures, levies, and custom regulations are more conducive. Ethiopia (goats) and Tanzania (cassava) had initial successes in getting new overseas buyers in the Middle East and China, respectively where import procedures, levies, and custom regulations are more conducive.

»CS6 (Cocoa and chocolate purchasing practices in Ghana) and CS9 (Human rights due diligence in the coffee VC) find voluntary standards related to responsible business conduct or sustainable production, including Fairtrade & BIO certification.

»CS7 (Local dairy VCs in West Africa) finds that VAT policies can be used to promote investment in local milk production to make it more competitive. CS7 also studied different combinations of several policy instruments: (i) an increase in the CET to 35% on milk fat powder and 10% on whole milk powder, with flexibility based on world prices, (ii) making imports and the use of powders by processors conditional on companies' commitment to incorporate 20% local milk in their products, and (iii) an abolition of VAT on products made from fresh milk.

»CS9 (Human rights due diligence in the coffee VC) sees a long list of instruments as vehicles to increase pressure on companies active on the EU-market to increase traceability and apply due diligence in relation to human rights and environment in their VCs, and this in turn has impact on their VC actors who become (in different degrees) involved in these due diligence processes, and experience increased compliance pressure and/or increased room for engagement with their buyers on how to address negative impact.

»CS12 (Ethical Trade Initiatives for South African Wine) lists three Fair Trade Initiatives and Associations.

As some our CS show, 'smart' climate policy decisions may turn out to be a socio-economic divider even among the poor. Therefore, commodity exchanges, weather and price risk insurance, pre-harvest credits, and other

modern risk management tools must be very carefully designed if the most food-insecure and least organised population segments are to benefit from an effective access to these tools.

»CS5 (Sustainable VCs and livelihoods in Ghana) notes that Ghana relies heavily on imports to meet domestic demand for animal protein. Poultry VCs in the country cannot compete with imports, either in quality or prices. The CS proposes a set of investment and trade measures to reach the objective of an efficient and competitive poultry industry, including protectionist measures to control importations or offer domestic products with better starting conditions to compete. For more competitiveness in the market, there is a need to reduce production and transaction costs, comply with quality standards, access to diversified/processed poultry products.

»CS10 (Beef and policy coherence for sustainable development) and »CS 13 (Dairy production, standards and competitiveness in global markets) consider that the possibility to invest in local production in net importing countries could reduce imports and reach some SDGs. But the level of required investments would probably be so high that, initially, imported food commodities would be cheaper. It is also clear that some investments could benefit the whole economy (roads, public transports, water management etc.). Those investments could be oriented at regional levels but also at farm level improving farm equipment and farm competitiveness, and the capacity to meet good health and environmental KPIs.

»CS14 (Governing trade to influence land-use and food systems in the soybean – meat complex) finds that this sector fails on account of all relevant SDGs.[32] The soy-meat industry is associated with land and green grabbing severely affecting the livelihoods of family farming communities. The CS argues that literature stresses how, under the current governance in the region, measures are taken to intensify production; even 'sustainable intensification' measures capitalise farmers, ultimately providing them with more resources to keep expanding crop area over native vegetation. Another tool are private certification schemes, where literature shows that despite labelled as 'private'

[32] SDG 1, 2 and 3: the soy-meat sector affects the livelihoods of family farms. SDG 8: the soy model in the region generates large quantities of wealth to few privileged non-residents and very few jobs for the bottom strata of society. SDG 15: Soy-meat complex impacts on local water resources, biodiversity and carbon stocks builds on Brazil's trade interests in agriculture and proposes to conclude (voluntary) supply side agreements, together with intensification measures.

schemes, the State fulfils important functions in the working of these schemes, such as enforcement support.

Another, very important element for consideration when looking at the role of 'sustainable' investment is *national debt in developing countries*. Dependency on outside funding may not only weaken their negotiating positions with important donor countries. In addition, even large African countries like Egypt and Tunisia 'have become peripheral in the global economy, so that their economic policies are now primarily defined by a need to secure outside financing and accept their creditors' preferences to fill ever-widening funding gaps.' (Adly and Meddeb, 2023).

c) Climate Risk Insurance: A New Tool – for Taxpayers?[33]

Production and market risk hedging are often constrained by the absence or over-regulation of instruments, such as risk insurance or futures trading. Accordingly, all market participants, 'from farm to fork,' tend to over-invest in food access security, including government-backed stockpile operators. For instance, Ethiopian farmers, processors and traders could have found various insurance instruments but were prevented from risk managing by heavy government (and food aid donor) interventions. For these reasons, Joseph Glauber (IFPRI), together with Katherine Baldwin et al. (OECD), argue that rapidly increasing government support to agricultural risk management can reduce farmers' risk-taking incentives and, hence, the effectiveness of market mechanisms. Instead, they posit carefully designed policies in support of private agricultural risk management tools, such as disaster aid, agricultural insurance, income stabilisation schemes, and tax and savings measures. (Glauber et al., OECD 2021). Of course, weather uncertainty, such as monsoon or draught, is nothing new. Governments at all times have reacted, and are reacting, with (i) trade measures that aim at increasing domestic supply to stabilise markets, e.g., (ii) through export restrictions introducing or up-scaling existing domestic social safety nets, or (iii) food aid introducing producer-oriented support, e.g., through fixed prices at farm-gate level. However, when global warming poses particularly difficult challenges, the tools for efficient and effective intervention, cooperation, and defence will be even more difficult to manage. Perhaps outmigration support, coming at the right time, would be the most sustainable way in such locations.

[33] Main Source: Häberli (2021a)

GHG worldwide tend to multiply price volatility or price spikes and policy responses – in certain countries, for vulnerable populations, and for specific products. What can be done?

Many governments recently increased *food stockpiles*, often without acknowledging that public food reserves are costly, and often inefficient. Regional or 'virtual' food stockpiles require agreements, mutual trust and the possibility of concerted and swift action. Absent such mechanisms, government stockpiles will remain ineffective in counteracting price spikes, which are costly and prone to corruption. Moreover, such schemes can crowd out private stock ownership, risk management, better storage techniques, and insurance.

This is where MATS may contribute. In our horizontal CS analysis, we list all quoted SDGs and the proposals made to contribute to their achievement (Table 2). The measures we analyse in our CS with respect to their impact on global food security, price volatility, and on investment and trade decisions by farmers and processors, are interesting topics also for political economists. They show the merits, shortcomings, and failures of international food governance in the light of multilateral trade rules and negotiations. The same goes for general shortcomings in intellectual property protection, piracy, and counterfeiting prevention and sanctions. (Grajales Pérez-y-Soto 2021)

4. MATS and the EU Green Deal

In line with our MATS Terms of Reference, we consider the EU 'Legislative Train Schedule' (= EU Green Deal, with FF55 policies and 'guidelines'), as the main new climate-friendly production and trade regime of the EC.[34]

Two new instruments are particularly noteworthy for our CS:

1. The implementation of the *Due Diligence* concept, and related obligations.[35]

2. Most recently, are the 'guidelines' for the design of (new?) *Sustainability Agreements* in the field of agreements pertaining to agriculture. This is a novel exclusion from EU competition rules introduced by the CAP.[36]

Importantly for MATS, these framework conditions apply not only to EU producers and operators, but *mutatis mutandis* also to imported goods and services, producers and suppliers. The justification for this arguably extraterritorial effect is that, especially for climate change mitigation, intra-EU efforts could lead to disinvestment and/or preferences for less sustainable imports ('carbon leakage'). The rationale behind these global policies is to establish a 'level-playing field' with equivalent conditions of competition, instead of a race to the (climate) bottom. However, these new policy instruments appear to have been developed without a Sustainability Impact Assessment for EU imports from developing countries – let alone after consultations in the framework of TSD chapters in the EPAs.

Hereafter, we focus on two EU Green Deal Regulations, coming together with recent, directly applicable 'guidelines' for operators: CBAM (a) and the Deforestation Regulation (b).

[34] In Section 2(a), we already discussed the challenges presented by a bewildering array of BCA for small developing countries. For a critical assessment of the Green Deal under a developing country perspective, see Matthews (2022)
[35] Our MATS discussion paper *The EU's climate package, the Carbon Border Adjustment Mechanism (CBAM), and selected climate policy measures relevant to the agri-food sector* underlines the importance of the EC's Due Diligence proposal for our further work. (Carlson, Häberli, Steiner, 2023)
[36] On 7 December 2023, the European Commission adopted new 'guidelines' on how to design *sustainability agreements* in the field of agriculture @ https://ec.europa.eu/commission/presscorner/detail/en/IP_23_6370.

a) CBAM[37]

On 17 August 2023, the European Commission's Legal Services published two 'guidance documents' for the Transitional Period (1 October 2023 to 31 December 2025). These elaborate explanatory documents provide that CBAM goods producers and importers face 'pre-CBAM' obligations as of 1 October 2023:

1. INSTALLATION OPERATORS FROM OUTSIDE THE EU: the importer will contact Installation Operators to gather information on the 'embedded emissions' of these CBAM goods. Alternatively, the operator using such goods as precursor for producing other CBAM goods will ask for the level of embedded emissions. Therefore, such non-EU operators must be prepared to provide these data and start developing a monitoring methodology at their installations.

2. IMPORTERS OF GOODS INTO THE EU: CBAM importers will have to report a set of data, including emissions embedded in their goods, without paying a financial adjustment for the embedded emissions. However, penalties may be imposed, for example for failing to submit the required quarterly CBAM reports.

3. MATS-relevant goods, at this stage, are only fertilisers – very sparingly imported from Africa into the EU (e.g. phosphates from Morocco and Senegal). The calculation of *embedded emissions* only concerns significant emissions from upstream and downstream processes (called life cycle stages), from mining and production to transport, use and end-of-life – but not, apparently, farm-to-fork transport emissions of agricultural products. However, all imports into the EU, by air, ship or road, will face a distance related CBAM charge; this could hit African exports more than trade from EU neighbours.[38]

From 1 January 2026 onwards, importers will have a 'CBAM obligation' in the form of certificates, which they have to purchase at the average price of EU ETS allowances, for every CBAM good imported into the EU. A phase-in applies with increasing coverage of embedded emissions by the CBAM obligation

[37] For CBAM basics, and WTO compatibility, see Carlson, Häberli, Steiner (2023)
[38] Cf. Section 5b infra.

from 2026. The entire embedded emissions will only be covered from 2034 onwards.[39]

b) Deforestation

The EC Proposal for a Regulation on deforestation-free products aimed was issued back in 2010.[40] Its main objective was to reduce CO_2 emissions, strengthen carbon sinks, stop environmental degradation and biodiversity loss through preventing deforestation caused by expansion of agricultural production, driven by consumption and inter-national trade. (IPCC 2019) (OECD 2023b)

On 31 May 2023 the EU clarified the conditions under which deforestation-free agrifood exports from MATS countries and products would be assessed in the future.[41] Based on the FLEGT-Regulation (2005), a number of VPAs had already been concluded between the EU and partner countries, including with Ghana, Republic of the Congo, Cameroon, Central African Republic, Liberia, while negotiations were ongoing with Côte d'Ivoire, Democratic Republic of the Congo, and Gabon. They introduced a Licensing system, first applied in Indonesia, aiming to 'ensure that only legally harvested timber is imported into the EU.' A 2021 onsite 'Fitness Check' assessing the implementation and functioning of the EUTR and FLEGT Regulation showed that the core objective of the VPAs had not been met: 'There has been no discernible advance of VPA partner countries over other producer countries in reducing the level of illegal logging, with the notable exception of Indonesia. [...] Pos-

[39] Sources: Guidance documents provided by the European Commission for operators of non-EU installation operators producing CBAM goods (https://taxation-customs.ec.europa.eu/system/files/2023-08/CBAM%20Guidance_non-EU%20installations.pdf) and for importers of CBAM goods ((https://taxation-customs.ec.europa.eu/system/files/2023-08/CBAM%20Guidance_EU%20importers_0.pdf). Further info and guidance e.g. for for importers on how to complete quarterly reports on the CBAM Trader Portal were available on 19 August 2023 at https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en.

[40] Proposal for a regulation of the European Parliament and of the Council on the making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010. Available on 5 April 2023 at: https://environment.ec.europa.eu/publications/proposal-regulation-deforestation-free-products_en

[41] Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010. On 22 August 2023 available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R1115

itive results were however identified in terms of advancing *stakeholder engagement with civil society, governance reforms, transparency, codes of conduct and social safeguards*.'[42] (emphasis added)

This last sentence may signal a useful intervention possibility for some of our MATS project partners to clear the way for an effective VPA and a licensing system – not so much for timber and log exports than for clearing MATS products from deforestation origins.[43] This might become a very important component for MATS projects if and when an import ban threatens to apply to certain agrifood and forest products failing to comply with the obligations set by the EU's regulation.

Like CBAM, the Deforestation Regulation keeps meeting with strong opposition from developing countries. According to Borderlex writer Robert Francis, in August 2022, 14 countries expressed 'serious concerns' with the draft legislation. On 7 September, 17 countries from the Americas, Asia, and Africa wrote to EU leaders expressing 'deep concern' at the entry into force of the legislation. The signatories say it 'disregards local circumstances and capabilities, national legislations, and certification mechanisms of developing producer countries, their efforts to fight deforestation, and multilateral commitments, including the principle of common but differentiated responsibilities.' These countries call on the EU to 'repair this legislation, or, at a minimum, aim to mitigate its more harmful impacts through implementation guidelines.' While the EC is yet to respond, Professor Geraldo Vidigal from the Faculty of Law at the University of Amsterdam considers that '[t]his letter strikes the right tone.' (Francis 2023)

MATS case study evidence from the Moshi, Tanzania, as part of meeting with actors in the coffee value chain suggests that the lack of flexibility of implementation (requirements not exempting small scale farmers, or enabling flexibility in re-planting for small-scale farmers during transition periods) will likely result in effects that are in opposition to the intended ones from the Commission: companies at the top of agri-food value chains are incentivized, as a function of transaction costs, to de-select small scale producers that

[42] EC/Environment Website, quotes dated 22 August 2023 (https://environment.ec.europa.eu/topics/forests/deforestation/cooperation-partners_en)
[43] See DeValue et al (FAO, 2022)

have higher compliance costs with traceability and transparency requirements.[44]

[44] Similar concerns have been raised by the EESC, which 'warns against transferring the costs of the proposed regulation to small-scale farmers' (Halleux, 2023, p. 7): https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/698925/EPRS_BRI(2022)698925_EN.pdf

5. Other (non-EU) national and international standards

In Section 7 we only describe those national and international standards which our CS refer to in their search for more sustainability. In this section we first offer a few general remarks on standards (a), then we discuss the issue of transport-related emissions (b), and, finally, the repurposing of environmentally harmful subsidies, not least in agriculture (with the catchy title 'DeTox' used by the World Bank researchers) (c).

a) Standards: friends or foes?

A world without standards prevents cooperation and encourages a 'race to the bottom', arguably at the expense of social discrepancies, global environment, developing countries without standard-setting capacities – or all of them, and hence of our planet. Many policymakers and political economists are thus on the look-out for 'smart' policies which benefit everybody without harming sustainable growth.

Voluntary sustainability standards (VSS) – such as Fairtrade, GlobalGAP or Organic – are often the result of decisions and designs by VC participants in a particular product or country, with or without consumer information labels, independent monitoring, or vertical transparency. Their usefulness and impact have been debated for decades. A recent empirical study from Peru on net farm revenue, as a proxy of farmer welfare, of family farms used a multiple mediation model allowing to disentangle the main revenue-determining mechanisms and to compare their relative importance. It finds that higher prices cannot offset higher production costs of VSS, resulting in zero net revenue gains: 'We do not find an effect through yields, but identify a large potential effect on net farm revenue. We find heterogeneity in the effects by standard and crop, with crops certified to standards that apply a system of quality-based price differentiation having the largest impact on net farm revenue through a price effect.' However, potential improvements in VSS design may effectively improve economic sustainability. (Boonaert & Maertens 2023)

The challenge for all standards is that they can have national, regional, or international scopes. This may create additional certification and monitoring costs. We cannot ignore this crucial issue accompanying ever-increasing unilateral standards and regulations created in the EU and elsewhere. Indeed,

'easy' unilateral standards might focus on PPMs which national operators are already implementing but which African operators may rightfully consider taxing. Some CS find a pool of overlapping and complex standards first-of-all protecting domestic (EU) producers, and/or transferring added trade value to wholesale traders in Europe, away from MATS operators, particularly small-scale producers in African countries, and LDCs without sufficient knowledge on how to apply them.[45]

»CS6 (Cocoa and chocolate purchasing practices in Ghana) finds a dozen different standards and projects to promote sustainable cocoa, some already deploying effects with coercion instruments like potential EU import bans.[46]

Some private operators, especially retailers invoking consumer demands, try to shape producer standards not only in terms of price competitiveness. One example of PPM standards involving reputational risks – and heavy penalties – at both ends of the food VC is the refusal by Tesco, the UK's largest retailer, of avocado imports supplied by the Kenyan agricultural company Kakuzi. This case involved settling claims of human rights abuses with 85 alleged victims for up to £4.6 million.[47] Another case of public lobbying, in the Amazonas, is the claim by French environmental organisations and Brazilian indigenous people that the French Retailer Casino fails to look at the beef supply chain

[45] For instance, Gabon with its large rainforest covering huge natural gas resources may need market access guarantees for its (sustainably produced) fossil fuels, rather than multilateral or EU ODA to leave all its trees standing. This would call for mutual, specific commitments under a comprehensive RTA with its main trading partners. So far, the EU has never made use of actual import bans or preference withdrawals. The USA, Japan, China and others are not really ready for mutual commitments other than for reciprocal, preferential market access. But the US is more trigger-happy than the EU, for its own, domestic reasons, to negotiate and even to cut preferential market access as a tool against illegal logging in Peru, or workers' rights violations in Guatemala and Vietnam. (Häberli, 2017)

[46] UN Guiding Principles on Business & Human Rights (2011); OECD Guidelines on Responsible Business Conduct for MNEs (2011 and 2023 revision); OECD FAO Guidelines for Responsible Agricultural Supply Chains (2016); OECD Due Diligence Guidance for Responsible Business Conduct (2018); French Duty of Vigilance Act (2019); German Supply Chain Act (2023); Proposed EU Directive on Corporate Sustainability Due Diligence; EU Regulation on deforestation-free products; voluntary initiatives related to responsible business conduct (including certification); (government funded) voluntary sustainability initiatives; EU regulation on deforestation-free products (EUDR – cf. Section 4b); EU - Côte d'Ivoire - Ghana Roundtable "Cocoa Talks": coordinating and co-funding of supply chain governance.

[47] UK firm pays £4.6million to settle 85 claims of human rights abuses including 'rape and murder' at Kenyan avocado farm which supplied British supermarkets. By Jack Wright, *in* Mail Online, 14 February 2021. Available on 24 August 2023 at https://www.dailymail.co.uk/news/article-9258897/UK-firm-pays-4-6million-settle-85-claims-human-rights-abuses-Kenyan-avocado-farm.html

and thus supports deforestation.[48] In August 2023, they asked for a 'judicial mediation' to establish wrongs and rights, and remedies.[49]

»CS1 finds that regulatory efforts must include ensuring that there are laws and regulations that govern coffee production, processing, transportation, marketing, and other related activities in the country (The Coffee Industry Act (Act) Act No. 23 of 2001, The Tanzania Coffee Board (TCB), Tanzania Coffee Industry Regulations, 2013, Tanzania Coffee Industry Development Strategy 2011/2021:Local Government By-laws. Additionally, various regulatory frameworks, including trade agreements, export procedures, and levies, have been imposed to control coffee exports, which can limit market opportunities and create barriers for potential exporters. Unfortunately, these efforts have not been enough to bring the desired benefits to the smallholder farmers: frequent changes in regulations and standards on the coffee industry have hindered the effectiveness of the institutions that deal with the coffee sector.

Our CS could thus examine not only the EU's readiness for a 'true TSD' in its EPA, but at the same time environmentally and socially responsible corporate behaviour and practices in line with, say, OECD guidelines. (OECD 2023a, OECD 2023b)

Results along this hypothesis could provide a useful base for a dialogue with the EU, or even 'equivalency' or 'Mutual Recognition Agreements' showing where African regulators and operators make sustainability efforts as good, or better, than their European counterparts.

b) Transport

The undeniable climate impact of *transports* has already led to several different government measures and standards, as well as an avalanche of 'cap and trade' schemes across the whole planet. Obviously, long-distance transports such as from MATS countries to the EU may involve higher GHG emissions than, say, Swiss-EU trade in chemical products. In addition, *transport modes*,

[48] Des ONG accusent Casino de contribuer à la déforestation en Amazonie, une médiation judiciaire proposée. Le Monde, 9 June 2023
[49] Déforestation polémique au Brésil autour d'une filière d'achat de bétail de Carrefour. Le Monde, 29 August 2023

and *international standard harmonisation* (or the absence thereof) may impact differently in each of our CS. The present haphazard evolution of *transport emission* handling may well impact on some of our MATS 'clients'.

The calculation of embedded emissions for CBAM purposes only concerns significant emissions from upstream and downstream processes (called life-cycle stages), from mining and production to transport, use and end-of-life – but not, apparently, farm-to-fork transport emissions of agricultural products. Nonetheless, the EU Green Deal/FF55 includes a *Sustainable and Smart Mobility Strategy*. This strategy has three key objectives aimed at 'making the European transport system sustainable, smart and resilient.'[50]

Back in 2012, the EU had already included CO_2 emissions from *air transport* in its 'cap and trade' ETS.[51] It now foresees fees for all airplanes landing in the EU, including from MATS countries and products. In doing so, the EU follows the new CORSIA standard already applied by other countries. The ICAO Secretariat describes the new system as a 'harmonized way to reduce emissions from international aviation, minimizing market distortion, while respecting the special circumstances and respective capabilities of ICAO Member States.'[52] Five ICAO CORSIA Implementation Elements are laid down in 14 ICAO Documents approved by the ICAO Council for publication.[53] These 'Elements' apply to various degrees in the 125 States participating (as of 1 January 2024) in the first implementation phase (2024-2026).

As of 2024, the EU will also cover emissions from *maritime transport* – in parallel with its own 'FuelEU maritime' initiative.[54] Interesting for MATS is the announcement that 'Zero-emission ocean-going vessels will become market-

[50] Cf. Questions and Answers: Sustainable and Smart Mobility Strategy (Brussels, 9 December 2020). Available on 23 August 2023 at https://transport.ec.europa.eu/system/files/2020-12/mobility-strategy-memo-qa.pdf
[51] Cf. EU Emissions Trading System (EU ETS), available on 23 August 2023 at https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets_en
[52] Cf. https://www.icao.int/environmental-protection/CORSIA/Pages/default.aspx
[53] Cf. CORSIA Implementation Elements, available on 23 August 2023 at CORSIA Implementation Elements (icao.int)
[54] Cf. Press Release dated 25 July 2023 'FuelEU maritime initiative: Council adopts new law to decarbonise the maritime sector' for the use of more renewable and low-carbon fuels reducing the EU's carbon footprint of the maritime sector. Available with the legal text on 23 August 2023 at https://www.consilium.europa.eu/en/press/press-releases/2023/07/25/fueleu-maritime-initiative-council-adopts-new-law-to-decarbonise-the-maritime-sector/

ready by 2030; even more courageous appears the plan in respect of air transport: 'Large zero-emission aircraft will be market ready by 2035.'[55]

In 2020, *road transport* contributed to 24% of the EU's total GHG emissions. The EU's emphasis for reducing CO^2 emissions from vehicles consists in (i) Emission performance standards for cars and vans, including for imported vehicles, (ii) Reducing CO^2 emissions from heavy-duty vehicles, (iii) Fuel quality, and (iv) (mandatory) Labelling of new cars to help drivers choose new cars with low fuel consumption.

Our CS will try to assess to what extent, and when, products exported to the EU may face increased transport costs.

»CS10 (Beef and policy coherence for sustainable development) and CS 13 (Dairy production, standards and competitiveness in global markets) also estimated CO_2 emissions by import and export activities.

c) DeTox Development (IBRD Research)

The rapid decline of all types of natural capital appears in almost all SDGs and, of course, in the UNFCCC. It also affects most of our CS. Food security, smallholder farmers' and indigenous people's access to resources and services provided by nature, increasing standards, taxes and subsidies require new sustainable solutions without decreasing competitiveness.

Two recent multi-author publications with the lead author Richard Damian, Chief economist of the Sustainable Development Practice Group at the World Bank, directly address some of our MATS case study issues: sustainable use of natural capital, efficiency gaps, and unsustainable subsidies.

1. 'Nature's Frontiers: Achieving Sustainability, Efficiency, and Prosperity with Natural Capital' provides recommendations on how countries can better use their natural capital to achieve their economic and environmental goals. (IBRD 2023a) Significant efficiency gaps exist in nearly every country. Closing these gaps can address many of the world's pressing economic and environmental problems—economic productivity, health, food and water security, and climate change. Particularly interesting are the biodiversity gains arising with more sustainable carbon storage, agriculture, grazing, and timber returns. (James Gerber, University of Minnesota)

[55] Source: Press Release dated 25 July 2023 (*op.cit. supra*)

Adrian Vogl from Stanford University's Natural Capital Project engages researchers, policymakers, and civil society groups worldwide, advancing the «SCience and practice of how land management affects water and other ecosystem service co-benefits, with analytical tools and capacity building for integrated landscape management with the goal of enhancing the durability of investments in infrastructure, agriculture, and the environment. 'Key finding 3: Better allocation and management of land, water, and other inputs could lead to increases in agriculture, grazing, and forestry annual income by approximately US$329 billion—and enough food production increases to feed the world until 2050—without net loss of forests and natural habitats. […] Better cultivation strategies that close yield gaps, along with smarter spatial planning, can reduce the land footprint of agriculture while increasing global calories produced by more than 150 percent.

2. 'Repurposing Environmentally Harmful Subsidies' examines how subsidy reform can help safeguard the world's foundational natural assets – clean air, land, and oceans. (IBRD 2023b) Subsidies for fossil fuels, agriculture, and fisheries are driving the degradation of these assets and harming people, the planet, and economies. Many such subsidies increase fossil fuel consumption – at the expense, and market shares, of poor developing countries without comparable fiscal resources. The five largest agricultural subsidisers are China, the EU, Indonesia, Japan, and the USA. But low- and middle-income countries spend a larger share of their subsidy budget on product support, with more trade distorting and environmental damage, while the richest countries provide relatively more 'Green Box' support which, under WTO Rules, must have 'no or at most minimal' impact on production and trade. Moreover, many subsidies tend to benefit wealthier farmers using more inputs, and excessive fertiliser usage, and produce more outputs but often fail to improve productivity or efficiency. Inefficient subsidy usage is responsible for up to 17 percent of all nitrogen pollution in water in the past 30 years, which has large enough health impacts to reduce labor productivity by up to 3.5 percent. In addition, agricultural subsidies are responsible for the loss of 2.2 million hectares of forest per year, equivalent to 14 percent of global deforestation. Agricultural subsidies in rich countries increase cheap feed imports and tropical deforestation around the world: loss of 2.2 million hectares of forest per year, equivalent to 14 percent of global deforestation. In turn, subsidy-driven deforestation causes the spread of vector-transmitted diseases—including

3.8 million additional cases of malaria each year, with an economic impact of up to US$19 billion per year. Subsidy reforms are more than just subsidy removal and should consist of a package of measures that mitigate the downside risks of reform – including political opposition and adverse impacts on vulnerable groups – while maximizing their contribution to sustainable development. Secondly, reforms must receive public acceptance and credibility, Social protection and compensation, Careful sequencing, and Sound strategies for reinvesting reform revenues.

MATS can and should identify and describe environmentally harmful subsidies in all its CS and all its countries!

6. Interest groups and their role in addressing emerging issues

a) MATS Interest groups

Regulators and treaty-makers do not act in isolation. In our political economy study, we consider the role of all different interest groups and their representatives shaping or co-shaping policymakers and regulators: Agricultural producers, food industries, traders (wholesale and retail), food consumers, financial service providers (including IFIs), CSOs, political groups (including lobbies), and taxpayers. Other stakeholders in different CS include (often government-related) organisations like research and extension agencies, input providers, infrastructure investors and operators, commodity exchanges etc. Academia plays its role, too, with different weight given by scholars in different countries for different stakeholders, and for different topics.

All these actors have their own 'regimes': contracts, procedural rules, standards, and preferences. CSOs can wield powerful policy tools too when they work with politically meaningful strategies and with media and other support. Consumer information and priorities matter 'upstream' along the whole food VC.

»CS1 (Coffee in Uganda and Tanzania) finds that the coffee VC is comprised of various actors who can be grouped as input suppliers, producers, processors (curing and warehousing) and marketing agents (both domestic and international). The coffee VC is complex when some buyers and sellers of coffee participate in several national markets, thus enjoying better relative advantage. It has also been observed that there is a lack of integration and synergy among actors in the coffee VC that would allow all actors to participate in decision-making. Small-scale farmers are the least privileged since they are passive actors in major decision making (price-takers). Proposed solutions include an industry stabilization fund; a coffee research institute; free coffee seedling production and distribution (partly exists yet defunct due to quality issues with seedling distribution); promotion of co-operative institutions and alternative forms of funding through SAACCOs (ILO, 2006)[56]; public-private partnerships in the coffee industry; and creation of political will

[56] Savings and Credit Cooperative Organisation (*Sacco*): ILO (2006): Cooperating out of poverty: Cooperative reform in Tanzania, https://www.ilo.org/global/publications/world-of-work-magazine/articles/WCMS_081386/lang--en/index.htm; and https://nation.africa/kenya/counties/nyeri/coffee-factory-launches-sacco-to-ease-farmers-pain-4197474

for the development of the coffee sector. Other efforts include ensuring that there are laws and regulations that govern coffee production, processing, transportation, marketing, and other related activities in the country.[57] However, these efforts have not been enough to bring the desired benefits to the smallholder farmers. These, together with the complex nature of the international coffee trade standards and marketing procedures have completely alienated the smallholder farmers from the potential benefits of the international coffee market. CS1 recommends reviving and empowering farmer cooperatives by making them stick to their values and principles; public and private partnership should be established by the local government to enable farmers access to improved inputs to unlock greater potentials from coffee production:

- The GVT need to revise and operationalise its coffee related policies so that they become more relevant to address the constraints affecting effective and profitable participation of smallholder farmers in the coffee VC.
- Synergy and integration need to be enhanced among the various levels of the VC actors for transformative and inclusive action to enhance a win-win situation for all actors.
- The GVT and other actors should jointly create smallholder farmer' awareness about available agribusiness based digital services and improve physical infrastructure development for digital access and lower costs associated with access to the internet and digital devices to enhance smallholder farmers inclusion into the digital agricultural world
- Local governments and other immediate actors should re-equip agricultural extension service providers with modern working tools that can assist them to operate in a digitized agricultural world including being able to access and assess various international coffee market information and translate the same ready for use by farmers and farmer groups.
- The concerted actions of a diverse set of stakeholders must be harnessed to address the disconnect between producing and consuming

[57] Thanks to the EU Commission, a new joint effort between the Tanzania Ministry of Agriculture and the Commission has been put into place during October 2023, to introduce an electronic coffee auction in Tanzania, from which also small-scale farmers will potentially be able to benefit.

countries through coherent, reformed, and supportive international policy agenda, sustainability standards and operating environment on local coffee production realities to ensure benefits of international coffee trade trickle down sufficiently to the producers.

»CS 12 (Ethical Trade Initiatives (South African Wine) notes that farm workers in the SA wine industry have limited power to address emerging issues. Membership of labour unions is generally low and worker's associations are relative few.

»CS14 (Governing trade to influence land-use and food systems in the soybean – meat complex) relates improvement efforts for family farming communities, involving farmers and farmers' organizations, the Instituto Cerrados (national NGO), a Roundtable on Responsible Soy - RTRS, input suppliers, public officers and policymakers (Environmental Agencies of Brazilian States), financial institutions, processors (e.g. COFCO International, China's largest state-owned food processor), traders (e.g. Sinograin, a State-owned company) and European, African and Brazilian consumers.

By way of an anticipated conclusion, our CS show in a remarkable unison the importance of engaging with all actors and stakeholders for sustainability issues and decisions.

b) Role of interest groups in national, regional, and international developments

International and national developments call for reactions by regulators and stakeholders. On top of our complexity ranking is *Global warming and Biodiversity* for agricultural production.[58] In particular, Green Deal-related production requirements for all EU agrifood producers and suppliers and importers of these products are of utmost importance. (OECD 2023b)

Moreover, these regulations continuously face new adjustment challenges. A possible lead for MATS projects could be the new three-year *Climate Adaptation and Protected Areas* (CAPA) initiative, launched on 8 September 2023 in Lusaka (Zambia). According to an IISD Press Release, CAPA will 'use nature-based solutions to support local communities in adapting to climate change, while safeguarding critical ecosystems in and around protected areas

[58] For a *Farmland Habitat Biodiversity* Indicator project, see OECD (2023a).

in the Kavango-Zambezi and Greater Virunga landscapes in sub-Saharan Africa, as well as in Belize and Fiji.' (IISD 2023b)

For MATS producer groups with export interests, the market shares of their countries in standard-setting developed countries and products may determine their priorities and policy choices. For example, where EU imports are only a fraction of a country's or a producer group's total supply, Green Deal provisions (and EU ODA) may enjoy a lower priority than other clients' preferences and import conditions.

Hence – and this is a word of caution – additional sustainability improvements over and beyond Green Deal Law may be difficult to build into economically viable products and services.

The following elements will also impact on policy developments:

1. Evolving *financial viability* of 'sustainable production and trade' under new agreements, regulations, and consumer and civil society demands. This includes future transportation cost increases to EU or other destinations, in the wake of CORSIA regulations.

2. Lessons learnt from *Disruptions*: wars, pandemics, energy crises, export restrictions by suppliers of vital food commodities or by intra-African food security concerns, import restrictions for (alleged) sanitary or phytosanitary reasons.

We thus also look at these political economy 'drivers' for sustainable change, induced by geopolitics ('friends'), unilateral standard-setting and trade policy measures by big trading partners (e.g., CBAM, fertilisers, GVC and trade networks pursuant to pandemics or energy crises). This empirical research is dynamic in every sense of the word, and it includes other steps forward, and lapses, both external[59] and (EC-)internal.[60] Hence, we also take on board the regulatory proposals as they evolve.

New regulations and trade regimes as defined here may create increasing compliance costs and regulatory burden for agricultural imports and for the

[59] For example, according to Le Monde dated 12 May 2023, President Macron called for a «pause» in ecological legislative developments.
[60] On 31 May 2023, the Group of the European People's Party (EPP Group), the largest political group in the European Parliament with 177 Members from all EU Member States, decided to withdraw from the negotiations on the planned nature restoration law after another round of negotiations with other political Groups. (https://www.eppgroup.eu/newsroom/news/epp-group-withdraws-from-negotiations-on-nature-restoration)

food processing industry, especially in developing countries. We posit that this is where MATS can come in with a new general impact assessment – for each case and with all its different research disciplines.

7. Examples from MATS case studies[61]

MATS case studies typically start with on-farm production conditions and regulations. In *Table 1* we summarise the (expected, since work in progress) trade-relevant outcomes as they appear on the dedicated MATS website (https://sustainable-agri-trade.eu/case-studies-overview/).

TABLE 1 CASE STUDIES AND TRADE RELEVANT FINDINGS

#	Short Title	(Expected) Trade findings
1	Reducing poverty among smallholder farmers through enhanced trade regimes and value chains for coffee in Uganda and Tanzania	Assess profitability of coffee VC and its effects on the incomes of small-holder farmers and on poverty reduction in Uganda. Opportunities for local, national, regional and international markets provide for commercialization, VCs and primary processing of coffee. Impact of different strategies on poverty reduction.[62]
2	Intra-EU trade, resilience and social sustainability: the case of the oats VC in the Nordics	Improved resilience and social sustainability performance of EU oats VCs contributes to resilient intra-EU trade in oats and oats products.
3	Trade, sustainability and environmental linkages in Finnish dairy production	Environmental and climate impact in the case of a redesign of EU RTAs. Reduce the environmental externalities of dairy production, informing discussions about a more localised (Finnish and EU) production.
4	Enhancing Access to Export Markets by Sub Saharan African (SSA) Countries through Sustainable Investments to Ensure Quality and Quality of Agri-	Ability of key stakeholders to comply with EU and other international market access conditions for cassava (Tanzania), banana (Uganda), goat meat

[61] The regularly updated list of all MATS Case studies is here: https://sustainable-agri-trade.eu/case-studies-overview/

[62] For Tanzania, CS1 also found from primary data of 125 coffee farms in 4 districts that (1) gross margin for a farm is higher than expenditure for 12 months, which means that the incomes gained by small-scale coffee producers can make up for the food expenditure of the farm household and that coffee production can reduce poverty and improve living conditions. However, the gross margin is not enough to give an adequate compensation of farm labour. Coffee farmers are still exploited in the coffee chain. Of the farmers 65% produces coffee organically. (2) Farmers are overregulated and have to comply with over 50 different processes for starting to export coffee.

#	Short Title	(Expected) Trade findings
	food Commodities: The cases of Intervention Requirements for SSA Countries to Improve the Volume and Quality of Agri-food Exports in Tanza-nia, Ethiopia, Uganda, and Ghana	(Ethiopia) and cocoa (Ghana). Increased productivity and export volumes expected to contribute to reducing poverty and ensuring food security.
5	Policy frameworks and social cohesion for sustainable VCs and livelihoods in Ghana	Identify leverage points for increasing the competitiveness of domestic poultry meat – enhancing its quality and reducing its production and transaction costs to better compete with imported products. It will, in this way, enhance smallholder livelihoods and contribute to country animal protein self-sufficiency.
6	Cocoa and chocolate purchasing practices undermining living incomes for cocoa farmers (West Africa)	Identifying actor agencies and responsibilities to safeguard the human right of living income for cocoa farmers.
7	Impacts of EU policies on local dairy VCs in West Africa	Quantitative and qualitative evidence and analysis on the linkages between trade, local production, investments, food security, poverty reduction to the concerned stakeholders. Coherent and convergent policy responses for sustainable and fair VCs by the EU, ECOWAS and national states.
8	Belgian imports of ethanol from sugar cane: shared responsibilities among EU MS of human rights violations	Consumer awareness, EU and Belgian legislation, Improved livelihoods (e.g., secure access to food, land, water, income), reduced emissions, and improved adaptive capacity vs climate change.
9	Human rights due diligence in the coffee value chain	A better understanding of the potential and the risks informing ongoing policy processes designing a mandatory human and environmental due diligence at national, European and company level.
10	Beef and policy coherence for sustainable development	Labour legislation in force in the different selected countries will impact the farm economy in EU and extra-EU countries. Detect best practices for improving labour conditions and environmental impact while maintaining competitiveness.
11	Private standards and sustainable trade	Impacts of certification on labour conditions and market access in supply chains to improve these and increase

#	Short Title	(Expected) Trade findings
		the contribution of voluntary certification standards to the achievement of relevant SDGs.
12	Ethical Trade Initiatives in the South African Wine Industry	Overlapping or shortfalls between local policy, trade policy and voluntary sustainability standards regarding fair labour practices. Best practices for improving labour standards through agricultural exports.
13	Dairy production, standards and competitiveness in global markets	Linkages between labour conditions and environmental requirements in dairy farm and the related SDGs. Best practices for improving labour conditions and environmental impact in the dairy supply chains.
14	Governing trade to influence land-use and food systems pathways: The expansion of soybeans-meat complex in the MATOPIBA Brazilian frontier (soybean-meat complex)	Identify key leverage points to improve the sustainability of agricultural trade, providing policymakers with a systemic view of the situation that goes beyond the VC, highlighting politically and socially relevant issues such as land grabbing, water grabbing, land-use changes and displacement of smallholders, deforestation and biodiversity loss in environmentally sensitive areas.
15	Deep and Comprehensive Free Trade Agreements (DCFTAs)[63] between the EU and selected North African countries, and their impact on agriculture, access to water and sustainability	Strengthen CSOs knowledge and capacities in North Africa to advocate for sustainable and a rights-based trade regime with the EU.

The following *Table 2* is a trade policy grid showing, for each CS, (i) Trade regimes and (ii) SDGs relevant for more sustainable agricultural VCs, (iii) EU Green Deal/FF55 consequences, (iv) other standards including African ones, and (v) the interest and use made of relevant trade regimes by actors and other stakeholders.

[63] Compare with comparable provisions in the DFEU – Ukraine relations (the **Association Agreement**, including its **Deep and Comprehensive Free Trade Area (DCFTA)** is the **Association Agreement**.

TABLE 2. TRADE REGIMES, SDGS, GREEN DEAL AND OTHER STANDARDS, AND INTEREST GROUPS

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
Identified Agricultural Trade Issues	**Tariffs** **NTM** **PPM**	**Sust. Investment** **Risk Management** **Disruptions**	**CBAM** **Deforestation** **Transport**	**Social** **Labour** **Env. Harmful Subsidies (DeTox)**	**Actors** **Competitiveness** **Financial viability**
#1 Coffee in Uganda and Tanzania	Membership in WTO, EPA (NPA, EBA), ICO, ARSO, COMESA and EAC; AfCFTA foresees creation of frameworks for supporting agribusinesses. Trade restrictions persist. Tanzania also has complicated export procedures, levies, and custom regulations. Food value chain and smallholders: see supra Section 3.	CS1 is not yet completed. SDG Indicator 2.1.2 [Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience scale (FIES)] appears to show structural food insecurity for both Ugandan and Tanzanian smallholders.	n.a.	No special support, provisions, and standards for smallholders.	n.a.
Summary	Changes required YES	SDG reached NO	Trade Issue n.a.	Standards = Trade Barriers n.a.	Missing Actors: n.a. Competitive? n.a.

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
#2 Oats value chain in the Nordics	Non-tariff measures not relevant here given the intra-EU trade focus. Oats value chain actors were asked about the use of trade credits, yet these were found not to be relevant.	Oats value chain actors claim that have measures in place for risk management related to climate change and its impacts. Oats processors claim to have in place measures to assess producers' environmental impact, thereby contributing to the VCs overall sustainability; yet this is not the case with respect to social sustainability measures.	Oats value chain actors claim that F2F/ CAP sustainability requirements lower their competitiveness, and that greening payments are not enough to cover the costs from greening.	Oats value chain actors claim that more environmental sustainability measures are in place than social sustainability measures. Actors also claim that transparency in pricing and information sharing is an issue. Actors also claim that revenue is not shared fairly between actors in the domestic oats value chain.	Oats value chain actors claim that there have been situations where a contract with a retailer has forced them to increase sustainability efforts (e.g., use more environmentally friendly processing methods, pay more attention to the well-being of your employees). Supply contracts contain typically clauses for price negotiations, yet not detailed environmental specifications (production, processing). Actors raised some concern about the relatively low number of processors in the market, yet this seems largely a function of the market size.

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
Summary	Since intra-EU trade was the focus here, no changes required	CS evidence suggests that SDGs specified for the CS analysis (8, 12, 13, 15) have mostly been reached, while there is evidence that the focus among oats VC businesses has been predominantly on environmental sustainability sub-SDGs, and matters of social SDGs being less addressed (incl. market transparency & bargaining power).	Trade Issue are not deemed relevant, neither regarding labeling standards, nor with respect to trade credits	Keeping in mind that the focus of this CS is on intra-EU trade, there is no evidence that standards are used as trade barriers. Social sustainability standards with respect to information and revenue sharing are deemed to be an issue; labor standards not. Yet in general, social sustainability standards regarding labor are matters of HR departments, not part of companies' otherwise dedicated sustainability units. This implies that organizational change is desirable, for the sustainability transition of the oats VCs.	The sector is deemed competitive and resilient regarding shocks (trade shocks, environmental risks) while competitiveness is deemed at risk due to CAP-related sustainability requirements. Given the small size of the national markets, it is not surprising that actors raise some concern about the relatively low number of processors in the sector, which deserves mentioning in the context of the Commission's new antitrust guidelines adopted 7 December 2023.[64]

[64] https://ec.europa.eu/commission/presscorner/detail/en/IP_23_6370

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
#3 Finnish dairy production	Carbon tax, NTM, food and animal welfare standards	SDG 8, 12, 13, and 15	Agricultural policy, (land use, energy), climate	n.a.	Farmer organisations, consumers, NGOs especially environmental, taxpayers
Summary	Changes required n.a.	SDG reached n.a.	Trade Issue n.a.	Standards as Trade Barriers n.a.	Missing Actors n.a. Competitive n.a.
#4 Agrifood Exports in Tanzania, Ethiopia, Uganda, and Ghana	Membership in WTO, EPA (NPA, EBA). Observe common external tariffs under regional economic blocs of COMESA (Uganda and Ethiopia), EAC (Uganda and Tanzania) and ECOWAS (Ghana); More continental trade opportunities foreseen under AfCFTA. Countries likely to benefit from agribusinesses capacity building support. For institutional setups, see Section 3	SDG1 (reduce income poverty): Most likely to contribute to improved smallholder incomes, if support is provided to enhance the current suboptimal farm productivity. SDG2 (zero hunger): producing milk that can improve nutrition. SDG5 (Gender equality): Cassava (Tanzania) and Banana (Uganda) to directly enhance food security. Rearing of small ruminants	Investments in better production technologies and GAP can enhance levels of productivity per unit area, without need to expand farmed area and therefore save forests. Cocoa plantations: potential problem for implementation/compliance with CBAM and EU Deforestation regulations.	Legislation in place in the 4 study countries that protect labour rights of women and prohibit engagement of children in harmful labour chores	Farmer organisations for cocoa (Ghana) and banana (Uganda). Processors associations for cocoa (Ghana), banana (Uganda) and cassava (Tanzania). Exporters associations for all four commodities (cocoa, goats, banana and cassava).

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
		(goats in Ethiopia) more suitable for women engagement. SDG15 (Life on Land): Cocoa trees contribute to soil conservation.			
Summary	Changes required YES	SDG reached >50%	Trade Issue YES	Standards as Trade Barriers NO	Missing Actors n.a. Competitive n.a.
#5 Sustainable value chains and livelihoods in Ghana	Need for policy frameworks to provide farmers with quality services and facilities For new measures: see Section 5	SDG 1, 2, 5, 8, 10, 11 and 12		Proposals: Training and technology transfer services; financial support and improvement of domestic poultry inputs and facilities	Farmers and farmer's organizations (associations and cooperatives and credit unions), Input suppliers, Public officers and policy makers, financial institutions, R&D institutions, processors, traders and consumers
Summary	Changes required YES	SDG reached <50%	Trade Issue n.a.	Standards as Trade Barriers NO	Missing Actors NO Competitive NO

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
#6 Cocoa and chocolate purchasing practices (Ghana)	CIGHCI: Côte d'Ivoire - Ghana Cocoa Initiative - the instrument through which Ghana and CIV are claiming a 'Living Income Differential' on top of cocoa prices from multinationals. Soft law instruments related to responsible business conduct in global VCs and the (slow) translation of them into hard law instruments: see Section 5	SDG 1, 2, 5, 8, 10, 15 Indicators: See Section 3 (Excursus)	Forest strategy and deforestation Farm to fork strategy	Third party sustainability standards (Fairtrade, RA, Organic) Company sustainability programs Sectoral sustainability initiatives (ICI, WCF) National sustainability platforms (Belgium, Netherlands, Germany, …) Certification systems and rules of different futures markets, most importantly FCC and ICE	CSO's in consuming countries and producing countries Platforms of cocoa cooperatives Voluntary standards
Summary	Changes required YES	SDG reached <50%	Trade Issue YES	Standards = Trade Barriers NO	Missing Actors NO Competitive NO
#7 Local dairy value chains in West Africa	ECOWAS CET, EPA (intermediary EPAs with Côte d'Ivoire and Ghana), West African fiscal policies (VAT)	SDG 1,2,8,10 SDG indicators: see text Section 3	VAT/CET policies can be used to promote investment in local milk production to make it more competitive	n.a.	West African Milk producers/processers and producers (smallholder dairy farmers, artisanal

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
	Tariffs are low and do not protect West African market from EU exports. Intermediary EPAs signed with Ghana and Cote d'Ivoire undermine regional integration and regional CET negotiations.		Deforestation (production of palm oil used to enrich EU fatty-filled milk powder which is in turn exported to W Africa) Green Deal/Farm to fork (impact on milk production in EU and possibly on exports to West Africa)		and (semi-)industrial processors) International/EU industrial milk companies EU dairy producer organizations NGO/CSO actors (Campaigns Mon Lait est Local, N'exportons pas nos problèmes) EU (DG INTPA, Trade, Agri) West African national governments and consumers
Summary	Changes required YES	SDG reached <50%	Trade Issue YES	n.a.	Missing Actors YES Competitive YES
#8 Belgian imports of ethanol from sugar cane	Renewable Energy Directive and associated delegated acts, Fuel Quality Directive, Regulation on the Governance of the Energy Union	SDG 1-15, SDG 17 For indicators, see Section 3	Renewable Energy Directive and associated delegated acts, Fuel Quality Directive, Regulation on the Governance of the Energy Union	Bonsucro International Sustainability & Carbon Certification (ISCC)	Actors dominating the VC: Ethanol producers, many of which linked to major petrol companies; Petrol companies; EU decision makers

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
	and Climate Action, Fit for 55, EU Proposed Directive on Corporate Sustainability Due Diligence, Corporate Sustainability Reporting Directive, Proposal for a ban on goods made using forced labour, Regulation on deforestation-free products, Revision of the Trade and Sustainable Development Policy, (Draft) EU-Mercosur FTA, EU-Colombia-Peru-Ecuador FTA		and Climate Action, Transport Regulation, Maritime and Aviation Regulation. Transversal regulations: Gender justice legal frameworks (e.g. Proposed Directive on combating violence against women and domestic violence)	Roundtable of Sustainable Biomaterials (RSB)	Other actors involved and affected: Local and national policy makers in producing country; Journalists; Peruvian & Brazilian CSOs; Farmers (including women farmers); Indigenous communities; Cooperatives; Logistical/Transport companies; Ethanol traders and retailers; Private Investors; Public development banks
Summary	Changes required YES	SDG reached NO	Trade Issue YES	Standards = Trade Barriers NO	Missing Actors NO Competitive YES (dominant actors)
#9 Human rights due diligence in the coffee value chain	Soft law instruments related to responsible business conduct in global VCs and the (slow) translation of them into hard law	SDG 1, 2, 5, 6, 8, 17 For Indicators: see Section 3	The Action Plan on a Circular Economy, the Biodiversity strategy, the Farm to Fork strategy, the Chemicals strategy and Updating the	Legislation (national, regional and international) related to human rights, labour rights, discrimination & gender, environmental protection,	EU decision makers (trilogues CSDDD ongoing); OECD & UN Working Group on Business & Human Rights; CSOs active on corporate

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
	instruments (cf. Section 5): UN Guiding Principles on Business & Human Rights (2011); OECD Guidelines on Responsible Business Conduct for MNEs (2011 + 2023 revision); OECD FAO Guidelines for Responsible Agricultural Supply Chains (2016); OECD Due Diligence Guidance for Responsible Business Conduct (2018); French Duty of Vigilance Act (into force 2019); German Supply Chain Act (2023); Proposed EU Directive on Corporate Sustainability Due Diligence; EU Regulation on Deforestation; voluntary initiatives related to responsible business		2020 New Industrial Strategy; Building a stronger Single Market for Europe's recovery, Industry 5.0 and the European Pillar of Social Rights Action Plan and the 2021 Trade Policy Review all list an initiative on sustainable corporate governance among their elements. Deforestation: Regulation on deforestation-free products already introduces due diligence for VCs (although still limited).	agriculture, participation, and company law. Regulation (EC) No 864/2007 of the European Parliament and of the Council of 11 July 2007 on the law applicable to non-contractual obligations (Rome II).	accountability, trade unions (ITUC & ETUC); Business lobby (EU and national level) Certifications including Fairtrade International, Fairtrade Africa, WFTO, Rainforest alliance, Big5 consultancies. Buying companies, Supplying cooperatives, coffee farmers, and national policy makers involved in coffee sector.

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
	conduct (including certification).				
Summary	Changes required YES	SDG reached n.a.	Trade Issue n.a.	Standards as Trade Barriers YES	Missing Actors NO Competitive YES
#10 Policy coherence (for beef)	These elements are relevant in all countries involved in this CS. Three countries are in Europe (Italy, France, Germany) so they are following the EU rules for beef import export. USA, Brazil, Argentina, Namibia, South Africa, Morocco, are following their national rules. They have not been explored country by country but there is trade in beef among these countries		These elements have been considered in the CLD developed for the CS	In each of the 9 countries investigated the social conditions in terms of labour at farm level have been reported. In each of the 9 countries environmental impact in term of CO_2 emissions have been quantified.	Among the 9 countries identified in the CS, the differences in terms of competitiveness are emerging at farm level measured in €/kg of beef produced
Summary	Changes required YES	SDG reached n.a.	Trade Issue YES	Standards as Trade Barriers YES	Missing Actors n.a. Competitive n.a.

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
#11 Certification on labour conditi-ons	n.a.	n.a.	n.a.	n.a.	n.a.
Summary	Changes required n.a.	SDG reached n.a.	Trade Issue n.a.	Standards as Trade Barriers n.a.	Missing Actors n.a. Competitive n.a.
#12 Ethical Trade Initiatives (South African Wine)	EU-SADC EPA: cer-tain tariffs and NTM's remain problematic	SDG8 - productive employment and de-cent work for all SDG indicators: See Section 3	n.a.	Fair Trade ETI – Ethical Trade Initiative SIZA – Sustainability Initiative of South Africa WIETA - Wine and Ethical Trade Trading Association	SA farmworkers SA wine farmers SA labour unions SA wine exporters EU wine importers EU wine retailers EU wine consumers
Summary	Changes required YES	SDG reached <50%	Trade Issue YES	Standards = Trade Barriers YES	Missing Actors YES Competitive YES/NO
#13 Dairy produc-tion and labour standards	These elements are relevant in all coun-tries involved in this CS. Three countries are in Europe (Italy, France, Germany) so they are following the EU trade rules.	n.a.	These elements have been considered in the CLD developed for the CS. They have not been explored country by country but there is dairy commodity	In each of the 9 countries investi-gated the social con-ditions in terms of labour at farm level have been reported. In each of the 9 countries environ-mental impact in	Among the 9 coun-tries identified in the CS, the differences in terms of competi-tiveness are emerg-ing at farm level measured in €/100 kg of milk produced

Case Studies	Trade Regimes	SDG	Green Deal/FF55	Other Standards	Interest Groups
	USA, Brazil, Argentina, Algeria, South Africa, Zimbabwe, are following their national rules.		trade among these countries.	term of CO_2 emissions have been quantified.	
Summary	Changes required NO	SDG reached n.a.	Trade Issue YES	Standards as Trade Barriers NO	Missing Actors n.a. Competitive n.a.
#14 Governing trade to influence land-use and food systems (Soybean – Meat Complex)	Focus on environmental safeguards in trade agreements. (Draft) EU-MERCOSUL FTA will allow more stringent enforcement of existing regulations. For domestic implementation measures: see Section 3	SDG 1, 2, 3, 8, and 15: deterioration on all accounts (cf. Section 3).	Amazon Soy Moratorium: the CS argues for an expansion of the moratorium to the Cerrado. EU Deforestation: The CS proposes to Include 'Other Wooded Land' and 'Natural Grassland' in the regulation.	Private sustainability certification schemes proposed (cf. Section 3)	Schemes show high unequal power distribution between actors. For initiatives and proposals cf. Section 3
Summary	Changes required YES	SDG reached <50%	Trade Issue YES	Standards as Trade Barriers NO	Missing Actors NO Competitive NO
#15 EU–North African DCFTAs	n.a.	n.a.	n.a.	n.a.	n.a.
Summary	Changes required n.a.	SDG reached n.a.	Trade Issue n.a.	Standards as Trade Barriers n.a.	Missing Actors n.a. Competitive n.a.

8. Findings, Conclusions – and Next Steps

This Discussion Paper tries to answer the following research questions with the help of our 'horizontal reading' of fifteen MATS CS:

1. Which are the most relevant trade regimes and policy instruments with an impact on sustainable agrifood trade?
2. Which SDG and indicators appear to be at least partly reachable? Where do our CS find serious setbacks in the absence of ambitious policy reforms?
3. Where, and how, can EU Green Deal and FF55 policies and measures bring about notable sustainability improvements?
4. Can other national and international standards contribute to, or prevent more sustainability?
5. Are different interest groups adequately represented in sustainability process and results of CS examinations (inclusiveness)?

At this stage, and even before all CS publish their assessments and findings, we can say this:

1. *Trade issues* appearing in the form of *tariffs, NTM and PPM* are an important factor in most sustainability assessments. CS 1, 4-10, and 12-14 find that regulatory changes are required in their countries and for their products; only CS 2 and 13 find no required changes. The type, and the extent of the required changes vary in each CS. Some appear to be minor, others are envisaged e.g., with the ratification of a trade agreement (CS 10, 12 and 14), or after a discussion between interest groups (CS 8, 9). Still other changes appear not within reach e.g., where governments are unwilling to follow up on their national pledges or their international commitments (CS 1, 4).
2. Most *SDGs* examined in our CS start with SDG 2 (End Hunger). Many CS go way beyond. »CS8 finds 16 relevant SDGs, while »CS12 focuses on just SDG 8 (productive employment and decent work for all). The only SDG not examined is SDG14 (Life below water), even though half the world's food, and feed, grows in freshwater and seawater. While some CS list just a few indicators (e.g. »CS2), »CS8 has 65 indicators. What strikes here is that all CS find that their products

and countries will reach less than 50% of the SDG and indicators relevant for them. »CS8 even predicts failures in all 16 SDG. At any rate, the two indicators relevant for SDG 2 are far from being reached.[65]

3. The *EU Green Deal (and FF55)* is likely to have a positive impact on Agrifood environmental and social sustainability; although VC actors also signal concerns with declining financial sustainability/competitiveness (»CS2); this positive impact with regard to social and environmental sustainability can be the case for CBAM, Deforestation Regulation, and Sustainable Transport. »CS4, 6, 7, 8, 10, 12 and 14 offer their views on this question, emphasising that more environmental & social sustainability will only be possible under certain circumstances and subject to regulatory changes.

4. The same goes for *other standards (social and environmental)* discussed in this paper and by the CS. Regardless of their WTO and AfCFTA compatibility, some act as trade barriers (»CS 9, 10). Others, on the contrary, may be conducive to live up to the sustainability challenge described in »CS4, 5, 6, 8, 12, 13, and 14.

5. The *inclusion* of all main shareholders, in the preparation of policy formulation, implementing adopted measures, and discussing sustainability reforms is an essential component for enhanced agrifood sustainability, and legitimacy of the adopted transition path.[66] Only two CS see basic inclusiveness (»CS9 and »CS10), while »CS4, 5, 6, 8, 12, 13 and 14 find missing actors along the food VC. This of course makes an assessment of present and future competitiveness and thus of financial viability difficult, thereby also pointing to issues of funding the sustainability transition (investment). In turn, gaps in inclusiveness seem to preclude a comprehensive sustainability impact assessment of regulatory change proposals for more environmentally and socially sound sustainability. Without substantial new data our SDG attainment estimates, or climate-friendliness in general, and across-

[65] 2.1.1 Prevalence of Undernourishment (PoU) and 2.1.2 Prevalence of moderate or severe food insecurity in the population (cf. Section 2(a))

[66] Please see Deliverable 6.2. for a clear distinction between on the definition of 'actors' and 'stakeholders' (supra Section 2): *D6.2 Enhanced engagement strategy and civil society–stakeholder–policy dialogue*: 1. 'Actors' are individuals, organizations or institutions that operate within our object of study, being the agricultural trade regimes and policies at the private sector, national, EU, African and global levels. 2. 'Stakeholders' are those actors that potentially have an interest in and thus a stake in our project's output. A limited amount of actors are thus stakeholders, but all stakeholders are actors.

the-board EU Green Deal compatibility in particular, will thus be limited to a theoretical political economy analysis without concrete CS findings or 'smart' proposals for policy change.

It seems that at this stage, we cannot yet confirm, or modify, our premise that more sustainable agrifood trade is possible with a variety of adequately combined, and implemented, 'smart' policy changes – with or without EU and other exogenous influences (cf. Section 1, introduction & conjectures).

But we conclude our enquiry into the political economy of trade regimes with five assertions in respect of the implications for sustainable agricultural trade and thus for our MATS project as a whole:

- **Trade policies can affect the distribution of income.** Trade liberalisation may promote economic growth, but it can also lead to job losses in import-competing industries, which can harm workers in those industries and their families and create social unrest. In contrast, trade protection can benefit those workers, but it can also lead to higher prices for consumers.
- **Trade policies can affect the balance of power between different interest groups.** Trade liberalisation can benefit consumers and businesses that export goods and services, but it can at the same time harm businesses that compete with imports. This can lead to conflicts between these groups, as each group tries to influence the government's trade policy.
- **Trade policy changes can affect the government's ability to raise revenue.** Tariffs are a form of taxation, and they can provide a significant source of revenue for the government. However, trade liberalisation may lead to a decline in tariff revenue, which can force the government to raise taxes in other areas – or cut spending.
- **Trade policies can affect a country's political stability.** Trade disputes can lead to tensions between countries, and they can even escalate into conflict.
- **Trade governance institutions matter**. The capability and strength of institutions entrusted to oversee the implementation of tariff regimes can also determine fairness in the transmission of expected benefits from international trade. Inability to filter, say, counterfeit goods has caused unfair competition to domestic industries in African countries with weak customs management systems.

This is a milestone, to be reviewed and ascertained in the next and last phase of the project, especially in Task 5.3 (Discussion paper on the feasibility of

changes in trade relations and instruments).[67] T5.3 will come as a part of MATS Work Package 5 (Transition pathways and policy recommendations), building on WP1-4, especially the participation in CS relevant activities in WP2 and WP3 in 2023. This is a Visioning Process focusing on a joint vision for the whole MATS consortium within the context of alternative trade regimes. WP5 will also deliver three Tasks in direct interaction with the T5.3 proposals for policy changes: Visioning process focused on sustainable trade regimes (T5.1); Back-casting of desirable changes in trade relations and instruments, and design of transition pathways (T5.2); and Recommendations for improving the sustainability impacts of trade regimes (T5.4).[68] Moreover, ethical issues (WP 8) will interact with our deliverables and contribute to the further treatment and progress on the MATS road to more sustainability.

For Task 5.3 on policy changes we see a role for MATS to flag all sustainability issues in an appropriate way. We will endeavour do derive both specific and general policy conclusions, specifically tied to certain sub-SDGs, differentiated by commodities and countries. Two still understudied fields with a good potential of being impressed on policymakers could also be addressed in more detail by some of the CS: agricultural risk insurance, and environmentally harmful subsidies along the food VC.

Perhaps the final SDG assessment made by some CS will highlight the countries having embarked – or regressed – on the sustainability pathway designed in this paper.

[67] Lead: UBERN-WTI, Co-lead: UM-IGIR, Support: UH, SEATINI, TNI, ESRF, OXFAM) (M31-38). This task will start in M31, i.e., January 2024.

[68] Task 5.1 Lead: FRAUNHOFER, Co-lead: OXFAM, Support: KE, SEATINI, SCiO, TNI, ESRF, AUA) (M21-32) Task 5.2 Lead: FRAUNHOFER, Co-lead: UH, Support: KE, SEATINI, CRPA, UPM, TNI, ESRF, OXFAM, NWU) (M27-36) Task 5.4 Lead: UM-IGIR, Co-lead: SEATINI, Support: UH, UPM, TNI, OXFAM, FRAUNHOFER, UB-WTI) (M35-42). This task will start in M35, i.e., May 2024

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