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SUSTAINABILITY AND AGRICULTURE SUBSIDIES NEGOTIATIONS:
NAVIGATING THE CROSS-ROADS FOR 13TH WTO MINISTERIAL CONFERENCE

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SUSTAINABILITY AND AGRICULTURE SUBSIDIES NEGOTIATIONS: NAVIGATING THE CROSS-ROADS FOR WTO MC 13[1]

Sachin Kumar Sharma[2]**, Paavni Mathur, Ahamed Ashiq Shajahan, Lakshmi Swathi Ganti And Alisha Goswami**

ABSTRACT

Agriculture subsidies are estimated to increase by US$ 2 trillion in 2030 and many countries are critical of policies such as market price support and input subsidies due to their adverse impacts on the environment such as climate change and biodiversity loss among others. Recently, in addition to trade distortion, the environmental impact criterion is playing a crucial role in disciplining agriculture subsidies at the WTO. Many members and international organisations have called for a substantial reduction in the subsidy entitlement of individual members to address the adverse impact of high levels of agricultural subsidies on the environment and international trade. The reduction is proposed to be proportionate to the size of the members' current and future trade distorting entitlements. The paper examines whether the proposed methodology to discipline agriculture subsidies promotes agriculture sustainability from the perspective of social, economic and environmental concerns. The results suggest that the proposals based on proportionate methodology undermine not only social and economic sustainability but also leave the existing imbalances in the AoA unaddressed, disregard special and differential treatment for developing countries, and moreover, negate the decade-long efforts made by developing members in finding a permanent solution for public stockholding for food security.

Keywords: WTO, Agriculture, Sustainability, Subsidies, Negotiations, Agreement on Agriculture, Environment, Climate Change, Ministerial Conference 13.

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SUSTAINABILITY AND AGRICULTURE SUBSIDIES NEGOTIATIONS: NAVIGATING THE CROSS-ROADS FOR WTO MC 13

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1. INTRODUCTION

Sustainability issues related to trade and agriculture subsidies have been intensely discussed in the context of climate change and other environmental concerns at various multilateral and regional forums including WTO, FAO, and OECD. It is reported that producer support for agriculture is expected to be US$ 1.80 trillion globally by 2030, and a significant share of it can be attributed to trade-distorting subsidies (FAO, UNDP and UNEP, 2021). Notably, agri-food systems represented 31 percent of global greenhouse gas emissions in 2019 and thus contributed to environmental degradation (Bellmann, 2022). As a result, many countries are critical of agricultural subsidies such as market price support and input subsidies citing their adverse impacts on the environment such as soil erosion, salinity, water depletion, and biodiversity loss (IMF, OECD, World Bank, & WTO, 2022). Moreover, the 2019 WTO report on 'climate change and international trade' encourages increased support in programmes improving the delivery of public goods and transition away from price and production-linked subsidies (WTO, 2019c). Hence, there is a call for amendments in multilateral trade rules, and repurposing agricultural subsidies to promote sustainable agriculture practices (FAO, UNDP and UNEP, 2021; Ash & Cox, 2022).

Generally, 'sustainability' in agriculture is discussed from the prism of environmental concerns. 'Sustainable development' emphasizes the importance of integrating environmental protection, social equity and economic prosperity while aiming to create a more resilient, equitable, and prosperous future for people and the planet (WTO, 2023b). The economic and social dimensions with a farmer-centric approach are also equally important as emphasised under the Sustainable Development Goals (SDGs). For instance, SDG 2 seeks to end hunger and malnutrition and double the agricultural productivity and income of small-scale farmers. Agriculture that fails to protect and improve rural livelihoods, equity, and social well-being will ultimately be unsustainable (FAO, 2014). Given the multiple economic and social challenges faced by poor farmers such as small landholding, inadequate institutional infrastructure, and market failures, any reform process for disciplining agricultural subsidies must consider a holistic understanding of 'sustainability' which includes the economic and social in addition to the environmental concerns. Moreover, sustainability should not be realised at the cost of the livelihood of farmers and the viability of agriculture. In this perspective, concerns regarding food security and poverty are equally important as those of soil health and farm returns for sustainable agriculture (Allen et al., 1991).

The most critical step in disciplining agriculture subsidies is the methodology to estimate trade-distorting support. The WTO Agreement on Agriculture (AoA) and Producer Support Estimate (PSE) of the OECD are widely used domestic support measurement systems which categorise support measures differently. The OECD system facilitates policy dialogue through its monitoring and evaluation reports by measuring PSE based on implementation criteria such as current or non-current production parameters (OECD, 2016). On the other hand, under the AoA system, the support is measured based on the expected trade impacts and evaluated against the legal commitments of a concerned member (Effland, 2011; Brink & Orden, 2023).

The WTO provides a multilateral forum where members negotiate legally binding commitments to curtail the flexibilities to provide agricultural subsidies. At the 12th Ministerial Conference (MC12), WTO members declared to make progress towards the promotion of sustainable agriculture and food systems, and resilient agriculture practices (WTO, 2022b). The sustainability issue related to agriculture has been discussed in different committees of the WTO in both multilateral and plurilateral[3] manner. Issues related to sustainable food system have been discussed in the Sanitary and Phytosanitary (SPS) Committee. Interested members in the Committee on Trade and Environment (CTE) are engaged in plurilateral discussions under Trade and Environmental Sustainability Structured Discussions (TESSD) where, among others, the environmental effects of agriculture subsidies are examined in an effort to reduce carbon emissions to achieve climate goals under the United Nations Framework Convention on Climate Change (UNFCCC) (Bacchus, 2023). Concurrently, the WTO members are negotiating the disciplines on agriculture subsidies under the Committee on Agriculture Special Session (CoASS). The relevant question is, how can the agriculture negotiations facilitate economic, social, and environmental sustainability in a comprehensive manner? The Agreement on Agriculture (AoA) provides detailed provisions on domestic support, and reduction in trade-

[3] A plurilateral agreement is one where not all WTO members are parties to it. Such initiatives are called plurilateral initiatives.

distorting support is one of the objectives of the reform programme through agriculture negotiations under Article 20. Importantly, the preamble of the AoA requires the reform programme to be made in an equitable way and address the issues related to food security and environmental protection. Additionally, it makes the Special and Differential Treatment (S&DT), an integral element of the negotiations.

The WTO members recognised the need for updating the rules to address the challenges of the 21st century such as food security, environmental protection, and reduction in trade-distorting support. For more than 22 years, members have been negotiating rules to limit the policy space to provide trade-distorting agricultural subsidies. Despite the intense engagement of members since the Doha Ministerial Declaration in 2001, consensus remains elusive due to divergence in members' positions (Sharma et al., 2021; WTO, 2021b). Many developing country members whose farmers are mostly low-income and resource-poor seek reforms to address inequalities and imbalances in the AoA, and provide a level playing field for their farmers. They argue that while the AoA allows many developed members to provide a high level of agricultural support, the policy space of most developing members to implement domestic support measures is shrinking (WTO, 2023d; Sharma et al., 2022).

Regardless of such concerns, some members of Cairns Group[4] including Australia, New Zealand, Canada, and Costa Rica among others call for a comprehensive overhaul of the domestic support principles to address the rising levels of global Total Trade distorting Domestic Support (TTDS) (WTO, 2021c). It is argued that the trade distorting domestic support entitlement of all members, especially the developing countries, has increased substantially from US$ 322 billion to US$ 740 billion between 2001 and 2016, and is projected to be US$ 2 trillion by 2030 (WTO, 2019a). In addition, Canada has pointed out that the top 10 countries in agriculture trade accounted for 78.6 percent of TTDS entitlement, wherein China, the EU, and India topped the list of countries with the largest entitlement in 2018 (WTO, 2023a). There is an apprehension that these ballooning subsidy entitlements would distort the agriculture market by amplifying uncertainty, instability, and undermine sustainability and climate goals. In the run up to the 12th Ministerial Conference[5] (MC12) held in 2022, the Chairperson of the CoASS published a draft text (Chair' text) which echoed concerns similar to those raised by the Cairns

[4] A 19-member coalition of agricultural exporting nations lobbying for agricultural trade liberalization.
[5] Ministerial conference is the topmost decision-making body of the WTO which usually meets every two years. The 12th Ministerial conference was recently held in 2022 in Geneva from June 12- 17.

group, and proposed to cap and reduce the sum of current global trade and production distorting domestic support entitlements by at least half by 2030 (WTO, 2021b; 2021c). A similar approach to discipline the trade-distorting support has been proposed by Costa Rica in 2021 and 2023 (WTO, 2021a; 2023c) which is currently under negotiations.

In simple words, the members of Cairns Group and the Chair text have suggested the following steps to discipline agricultural subsidies for sustainable agriculture. First, the global TTDS, which is the sum of trade-distorting domestic support currently provided by all WTO members should be estimated in monetary terms for a base year. Second, the base global entitlement needs to be halved by 2030. Third, in order to achieve it, all WTO members except Least Developed Countries (LDCs) shall reduce their individual TTDS entitlements proportional to the size of their respective current entitlements in the base year. Fourth, the reduced TTDS entitlement which is fixed in monetary terms would serve as the upper limit for the countries to provide trade-distorting agricultural subsidies. Fifth, by constraining policy space to provide trade-distorting support under this approach, members are encouraged to provide environmentally friendly and non-trade distorting domestic support measures to facilitate achieving SDGs.

Despite intense engagement on disciplining agricultural subsidies, members failed to converge on the modalities at the 12th Ministerial Conference in 2022. The members of G33, ACP, LDCs, and the African Group representing a majority of the WTO membership have demanded the elimination of special entitlements available to developed countries to provide massive product-specific trade-distorting support to level the playing field (WTO, 2018a; 2021c; 2023d). Additionally, developing countries are also concerned about the constraining impact of the outdated rules of the AoA on implementing support measures compatible with their prevailing socio-economic conditions.

Disciplining agricultural subsidies is increasingly influenced by the climate negotiations which are aimed at alleviating environmental concerns. This is evident from the active participation of WTO in the United Nations Climate Change Conference (COP26) which was held in November 2021, a few months before the conclusion of WTO's MC 12. Furthermore, the Directorate General (DG) of the WTO recently stated that trade has an important role in helping countries to adjust the shift in agriculture productivity for climate change adaptation (WTO, 2022c). Given the DG's express interest, an impending COP 27, and the need to achieve SDGs by 2030, the WTO would be keen to deliver on agriculture subsidy negotiation in the upcoming MC 13 at Abu Dhabi. In the upshot, the WTO members currently have a monumental task in hand, of delivering on alleviating environmental concerns while simultaneously safeguarding the needs and interests of the poor farmers within the limited period of time available for negotiations till MC 13 to be held in February 2024.

In this context, this paper examines the impact of the reduction in trade-distorting domestic support as suggested by some proposals on the policy space of WTO members to support agriculture and evaluate if these proposed disciplines promote sustainability in agriculture. More specifically, the study analyses the methodology to measure the trade-distorting domestic support entitlement and estimates the contribution of WTO members to halve the global entitlement by 2030. Additionally, this paper examines whether the proposed reduction would ensure a level playing field for low-income or resource-poor farmers and address the concerns of developing countries regarding inherent imbalances in the AoA. The study also seeks to facilitate dialogue to break the impasse in the ongoing domestic support discussions to achieve sustainability in a comprehensive manner which addresses relevant environment, social and economic concerns.

The study is divided into five sections. Section 2 deals with rising tide of trade distorting entitlement and sustainability. Section 3 discusses the reduction in global overall trade distorting domestic support entitlements. Section 4 analyses whether the proposed discipline undermines or furthers sustainability. Section 5 concludes the study.

2. RISING TIDE OF TRADE-DISTORTING ENTITLEMENT AND SUSTAINABILITY

Some WTO members like Australia, Brazil, Paraguay and Canada among others have projected that TTDS entitlement is to increase from US$ 844 billion in 2018 to US$ 2 trillion by 2030, and call for a substantial reduction in the entitlement of individual members, proportionate to the size of those members' current and future entitlements (WTO, 2019a; 2021a; 2021b; 2021c; 2023a). In order to understand the implications of these proposals, it is pertinent to (a) familiarise with the typology of agriculture subsidies under the WTO Agreement on Agriculture (AoA) and the relevant legal provisions, and (b) analyse the inherent data, trends, and methodology used to calculate the global TTDS entitlement.

2.1 DOMESTIC SUPPORT UNDER THE AGREEMENT ON AGRICULTURE

Under the AoA, the domestic support measures are categorised under different boxes namely Green, Amber, Blue, and Development box depending on their impact on price and production (Table 1). The least trade-distorting measures fall under the Green box which includes general services, public stockholding for food security purposes, domestic food aid, and direct payments. The trade-distorting support under production limiting programmes are called the Blue box measures. As a Special and Differential Treatment (S&DT), the Development box allows the developing members to provide input subsidies such as fertiliser, electricity, and irrigation to low-income or resource-poor farmers, and investment subsidies for agriculture.

Table 1: Classification of domestic support under the AoA

Boxes	Type of support	Comments
Green Box (Annex 2)	No or minimal trade-distorting support	No financial limit and is available to all members
Blue Box (Article 6.5)	Direct payments under production limiting programs	
Development Box (Article 6.2)	● Investment subsidies ● Input subsidies to low-income or resource-poor producers, ● Support to diversify from illicit narcotic crops.	No financial limit and is available only to developing members including LDCs except China and Kazakhstan.
Amber Box (Article 6.3 & 6.4)	Product and non-product specific trade-distorting measures	All members are subject to strict financial limits

Source: Authors' compilation based on WTO Agreement on Agriculture.

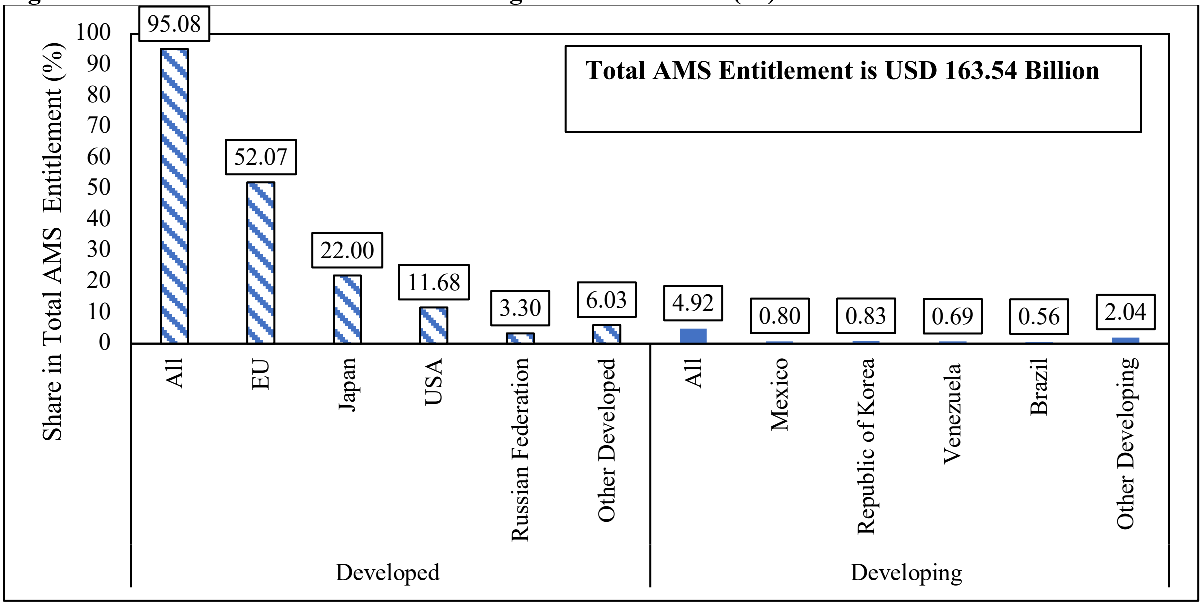
Notably, support under Green, Blue, and Development boxes are exempted from any financial limit under the AoA. Moreover, support that do not fall under these boxes are most trade-distorting and hence categorized under the Amber box. Such support can be both product and non-product-specific. For instance, price or budgetary support for a specific product is called product-specific support, whereas, general trade-distorting support provided to all agricultural products such as fertiliser subsidy is termed as non-product specific support.

Since Amber box measures are most trade-distorting, such support is subject to financial limits, either in the form of *de minimis* limits or the Final Bound AMS entitlement, hereafter called AMS entitlement. *De minimis* is the minimal amount of trade-distorting support allowed under the Amber box. For developing members, the applicable *de minimis* limit is 10 percent of the total Value of Production (VoP) of a basic agricultural product for product-specific support, and of VoP of total agriculture for non-product specific support during a relevant year. For the developed members, the applicable percentage under the *de minimis* limit is 5 percent. For China and Kazakhstan, this limit is set at 8.5 percent.

AMS entitlement is available only for the members who provided trade-distorting support above the *de minimis* level during the base period, which is 1986-88 for the founder members, and as per the Accession protocols of the acceding members. These members managed to secure additional policy space to subsidize their agriculture beyond the *de minimis* limit. Incidentally, 95 percent of the global AMS entitlement lies with the developed members like the European Union, United States and Japan (Figure 1), providing them enormous policy flexibilities to support their agriculture as compared to their developing counterparts (WTO, 2017b; Brink & Orden, 2023).

For instance, the United States and the European Union have an AMS entitlement of US$19 Billion and Euro 72 Billion respectively which can be used to provide product and non-product specific Amber box support above the applicable *de minimis* limit. The African Group in its recent proposal (WTO, 2023d) has highlighted the two important biases associated with the AMS entitlement. First, any amount or proportion of the member's AMS entitlement can be used to subsidize any product. This can lead to the concentration of subsidies on certain strategically important agricultural commodities, causing significant trade distortion in international markets. For instance, Canada used 98.56% of its Amber box to support dairy in 2018 and Japan spent 88.4% of its Amber box in supporting beef and veal in 2019. Second, this special entitlement allows members to provide product specific support over their *de minimis* limit, whereas, members that do not possess AMS have to limit product specific support to the de minimis level (WTO 2023d). Thus, the AoA unfairly constraints the policy space of members who don't possess AMS entitlement.

Fig. 1 Share of Total AMS entitlement amongst WTO members (%)



Source: Authors' calculation based on (1) Notified final bound AMS entitlement in their currency; (2) AMS entitlement of Mexico and Argentina based on 1991 and 1992 prices respectively; and (3) Exchange rate from IMF for the year 2018 accessed from https://data.imf.org/.

2.2 Projection of Global Overall Trade-distorting Domestic Support Entitlement

The proponents Australia, New Zealand and Canada calculated the TTDS entitlement based on variables namely, the AMS entitlement, product-specific *de minimis* limit, and non-product specific *de minimis* limit (WTO 2019a; 2019b). As explained in the above section, the product-specific *de minimis* limit for a developed member is five percent of the VoP of the concerned product, and the non-product specific *de minimis* limit is five percent of the VoP of total agriculture. Theoretically, the VoP of total agriculture is equal to the sum of the value for all individual products. Hence, it is argued that a developed member has a combined *de minimis* entitlement of 10 percent consisting of aggregate product-specific *de minimis* limit (5 percent) and non-product specific *de minimis* limit (5 percent). Similarly, the developing and LDC members enjoy a combined *de minimis* entitlement of 20 percent except for China and Kazakhstan whose combined entitlement is pegged at 17 percent.

Mathematically,

TTDS= Final Bound AMS Entitlement+ Product specific + Non-Product specific (1)

Non-product Specific= C%$\boldsymbol{VA_T}$ (2)

Where, C%= Applicable *de minimis* percentage for each country, VA_T= Value of total agriculture production in a relevant year, and lastlyva_i= total value of production for a specific product in a relevant year.

Product Specific= (C%va_1+ C%va_2 + C%va_3+ C%va_4+ C%va_5+ …+C%va_n)

=C% (va_1+va_2+va_3+va_4+va_5+…+va_n)

=C% $\sum_{i=1}^{n} va_i$

Assuming $VA_T = \sum_{i=1}^{n} va_i$,

Therefore, **Product Specific= C%$\boldsymbol{VA_T}$** (3)

Substituting equation (2) and (3) into equation (1),

TTDS= Final Bound AMS Entitlement+ C%VA_T+ C%VA_T

TTDS= Final Bound AMS Entitlement+ 2C%$\boldsymbol{VA_T}$ (4)

As per equation 4, the trade-distorting domestic support entitlement of a member is the sum of the AMS entitlement, and the monetary value of the combined *de minimis* limit for a relevant year. The AMS entitlement for a member remains fixed in monetary terms, and the policy space to provide distorting support under AMS entitlement remains the same regardless of changes in VoP over the years.. In contrast, the combined *de minimis* entitlement which is expressed as a percentage of VoP increases or decreases with an increase or decrease in the VoP respectively (Brink & Orden, 2023). Hence, with the AMS entitlement fixed in absolute monetary terms, the policy space of a member to provide trade distorting support varies solely because of its combined *de minimis* entitlement. The higher the VoP of a member, the higher would be the trade-distorting domestic support entitlement in monetary terms as in the case of China (Table

2). Based on this methodology, the global entitlement was estimated to be US$ 761 Billion in 2018, and the top 10 members namely China, EU, India, US, Japan, Brazil, Indonesia, Turkey, Russia, and Pakistan accounted for 75 percent of global entitlement. The developing and LDC members' share was 64 percent of global entitlement for the same year (Table 3).

Table 2: Trade-distorting domestic support entitlement of top five members in 2018 based on *de minimis* limit and AMS entitlement (US$ Million)

Members	**Value of Total Agriculture Production**	**Product-specific *de minimis* entitlement**	**Non- product specific *de minimis* entitlement**	**Total *de minimis* entitlement**	***Final bound AMS entitlement***	**TTDS entitlement**
1	2	3	4	5 =3+4	6	7 =5+6
China	8,83,482	75,096	75,096	1,50,192	0	1,50,192
EU	4,62,699	23,135	23,135	46,270	85,151	1,31,421
India*	4,50,776	45,078	45,078	90,155	0	90,155
US	3,69,293	18,465	18,465	36,929	19,103	56,033
Japan	84,058	4,203	4,203	8,406	35,980	44,386

Source: Authors' calculation based on FAOSTAT and notified Value of Production data.
Note: * India's Value of Production is taken from National Account Statistics.

Table 3: Members' share in the TTDS entitlement based on *de minimis* limit and AMS entitlement

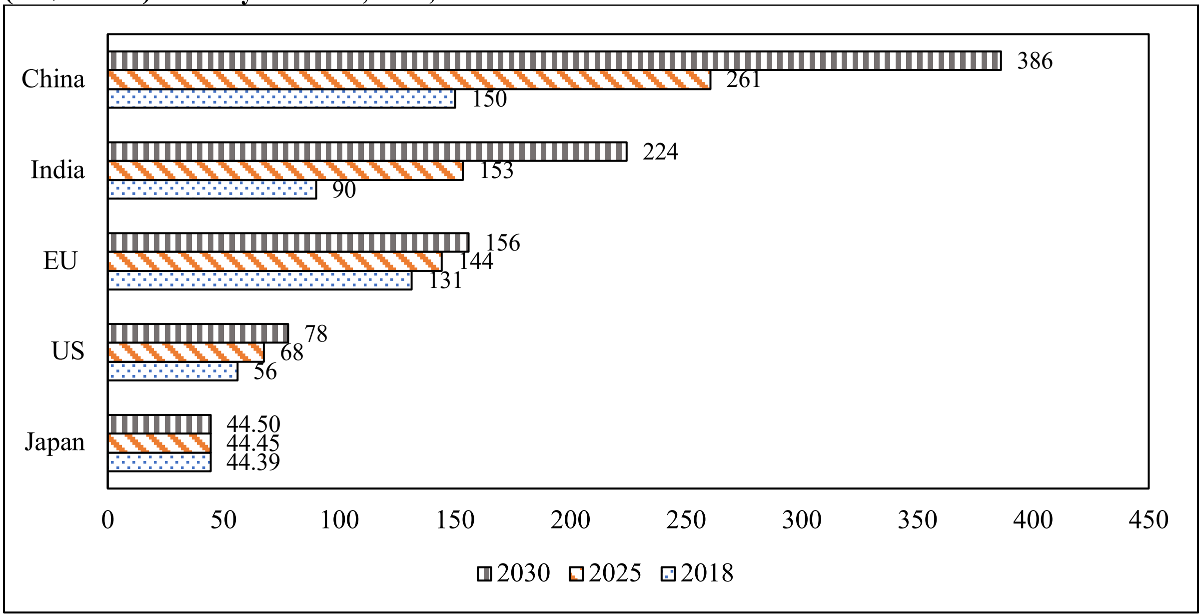
Members	**2018**		**2025**		**2030**	
	Billion US$	% share	Billion US$	% share	Billion US$	% share
Developed	274	35.94	310	28.20	345	23.36
Developing	447	58.73	726	65.99	1041	70.51
LDC	41	5.33	64	5.81	91	6.13
TTDS Entitlement	**761**	**100**	**1101**	**100**	**1476**	**100**

Source: Authors' calculation based on FAOSTAT and notified value of production data.

The global entitlement is projected to increase up to US$ 1101 Billion and US$ 1476 Billion by 2025 and 2030 respectively, mainly because of the increase in the VoP of agriculture for the WTO members (Table 3). It is to be noted that the VoP is projected based on compound annual growth rate based on 1995-2018 data of WTO members. Importantly, the projected global entitlement does not include the flexibilities available under the Development and Blue box. For a given increase in the VoP, the entitlement of the developing and LDC members would increase at double the rate than the developed countries due to the combined *de minimis* limit. Consequently, the share of developing and LDCs in the global trade-distorting entitlement is projected to increase from 64% in 2018 to 77% in 2030 (Table 3). Importantly, China and India will be the top countries in terms of trade-distorting domestic support entitlement by 2030 (Figure 2). For the developed members, the share of global entitlement reduces from 35.9% in 2018 to 23.4%.

The results of this study are largely in line with the projections made by some WTO members showing the increase in global TTDS entitlement (WTO, 2019a). However, the projected entitlement in monetary terms varies mainly due to data sources for the value of agricultural production. This study has used the VoP data based on national statistics, domestic support notifications and FAO statistics. Meanwhile, Cairns Group members have relied on the VoP data published in the FAO statistics. Overall, the TTDS entitlement based on the proposed methodology (summation of combined *de minimis* and AMS entitlement) is projected to increase which has prompted the WTO members to repurpose them to facilitate trade in sustainable agriculture.

Fig. 2 Trade-distorting domestic support entitlement of top 5 members based on proposed methodology (US$ Billion) for the years 2018, 2025, and 2030



Source: Authors' calculation based on FAOSTAT and notified Value of Production data.

3. REDUCTION IN GLOBAL OVERALL TRADE-DISTORTING DOMESTIC SUPPORT ENTITLEMENT

Given the trend in the TTDS expenditure, some Cairns[6] Group members and the Chair's text before the MC12 in 2021 have proposed to cap and reduce the sum of current global TTDS entitlement to at least half by 2030 (Table 4). Cairns Group and Costa Rica defined the TTDS entitlement based on all forms of support under Article 6 such as the Amber box, Blue box, and the Development Box. In order to reduce the TDDS entitlement, it is proposed that the contribution by individual members will need to be proportionate to the size of those members' current entitlements.

It is noteworthy that Costa Rica recently submitted a comprehensive proposal on domestic support where the modality for capping and reducing TTDS was reemphasised (WTO, 2023c). Some of the highlights of the Costa Rica proposals are as follows: First, it exempted Article 6.2 support below US$ 5 Billion from any reduction. Second, LDCs are exempted from capping and reducing their TTDS entitlement. Third, it proposes the flexibility to provide product-specific support to a concerned product based on share in global export or share of import in domestic consumption. Fourth, it provides the right to impose special countervailing measures against an exporter country that has high product-specific support. Finally, the resulting reform in domestic support is proposed to be accepted as the permanent solution for food security.

Assuming 2018 as the base year, a 50 percent reduction in the global TTDS entitlement of US$ 761 Billion will result in US$ 380 Billion. Therefore, the actual global support under the Amber box including the *de minimis* limit, Blue and Development box cannot exceed US$ 380 Billion for all subsequent years. Based on the proposals tabled by the proponents, all the WTO members except LDCs are required to reduce their individual entitlements proportional to the size of their respective entitlements in the base year i.e. 2018. The TTDS entitlement limit for a member is calculated by reducing the base entitlement of a member by its contribution to the reduction in global entitlement based on proportionate methodology. Importantly, the LDC members are exempted from reductions, therefore non-LDC members are required to undertake more than 50 percent reduction in their individual entitlements. For instance, India's entitlement in the base year was US$90 Billion, whereas the applicable TTDS limit is US$ 42.5 Billion, amounting to 53 percent reduction in the base entitlement (Figure 3).

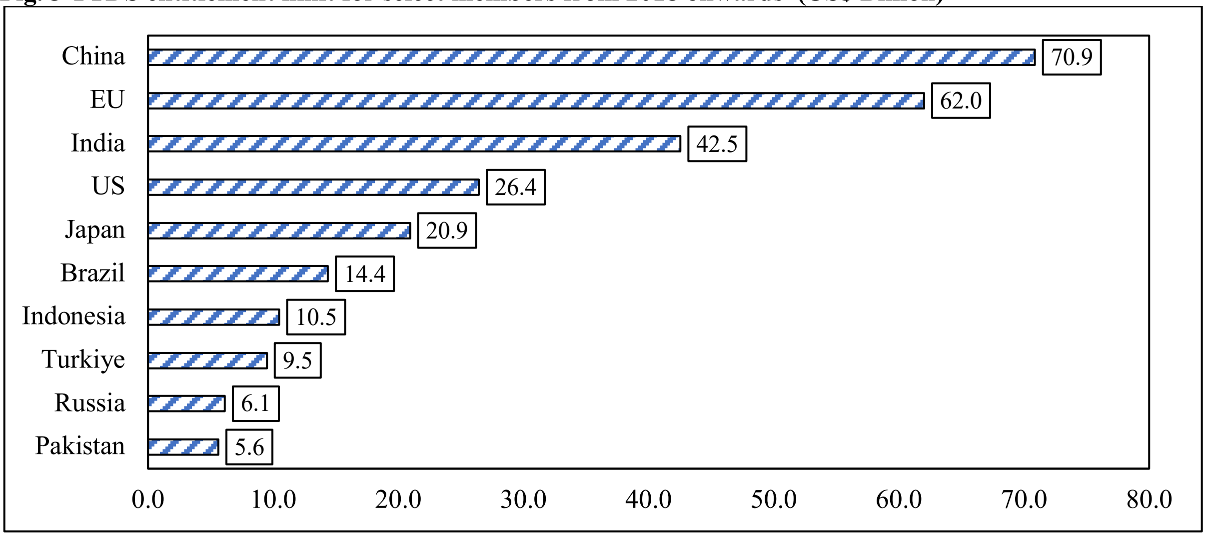
[6] A 19-member coalition of agricultural exporting nations lobbying for agricultural trade liberalization.

Table 4: Salient features of WTO domestic support proposals on proportionate methodology

Description	**Chair's text (2021)**	**Cairns Group* (2021)**	**Costa Rica (2021; 2023)**
Document No.	JOB/AG/ 215	JOB/AG/177/Rev.3	(JOB/AG/199) and (JOB/AG/243)
TTDS definition	All forms of support under Article 6 (or) All forms of support under Article 6 except the development box (Art. 6.2)	All forms of support under Article 6	All forms of support under Article 6 except Article 6.2 support below US$ 5 Billion
Reduction	50% reduction from the current global TTDS	50% reduction from the current global TTDS	50% reduction from the current global TTDS
Proportionate Methodology	Yes	Yes	Yes
Product-specific support (PSS) limit	No	No	PSS limits are based on market share in global exports. **
LDCs	No reduction commitments. But have to cap their TTDS entitlements.	Not mentioned	No capping and reduction required for LDCs

Source: Authors' compilation based on WTO proposals to discipline agricultural domestic support.
Note: *Cairns Group excluding South Africa, Cambodia, El Salvador, Lao PDR, and Ukraine.
**PSS limit was proposed only in JOB/AG/243.

Fig. 3 TTDS entitlement limit for select members from 2018 onwards (US$ Billion)



Source: Authors' calculation based on FAOSTAT and notified Value of Production data.
Note: These 10 countries have the highest entitlements in 2018.

For a member, the new TTDS entitlement fixed in monetary terms is the difference between its base year's entitlement and its contribution towards the reduction in global entitlement. According to the proponents, the new fixed TTDS entitlement limit would cover the actual support under the AMS entitlement, *de minimis* limit, Blue box and the Development box. As the new TTDS entitlement is fixed in monetary terms, the limit is projected to decline in percentage terms with the increase in the VoP. The new TTDS entitlement cap will shrink the policy space for all members under the proportionate reduction methodology. The result shows that developing countries flexibility to provide trade-distorting support would plummet from 18.9 to 3.8 percent for 2030 (Table 5). In monetary terms, the projected loss of policy space for the developing members would be US$ 830 Billion which is approximately 4 times the loss incurred by the developed members (US$ 216 Billion). As the TDDS limit is pegged at US$ 71 Billion, China will have to forgo US$ 315 Billion of its entitlement to provide trade-distorting support to agriculture in 2030. As a percentage of the value of production, the new TDDS limit for China would be 3.1 percent in comparison to 17 percent of combined *de minimis* entitlement (figure 4).

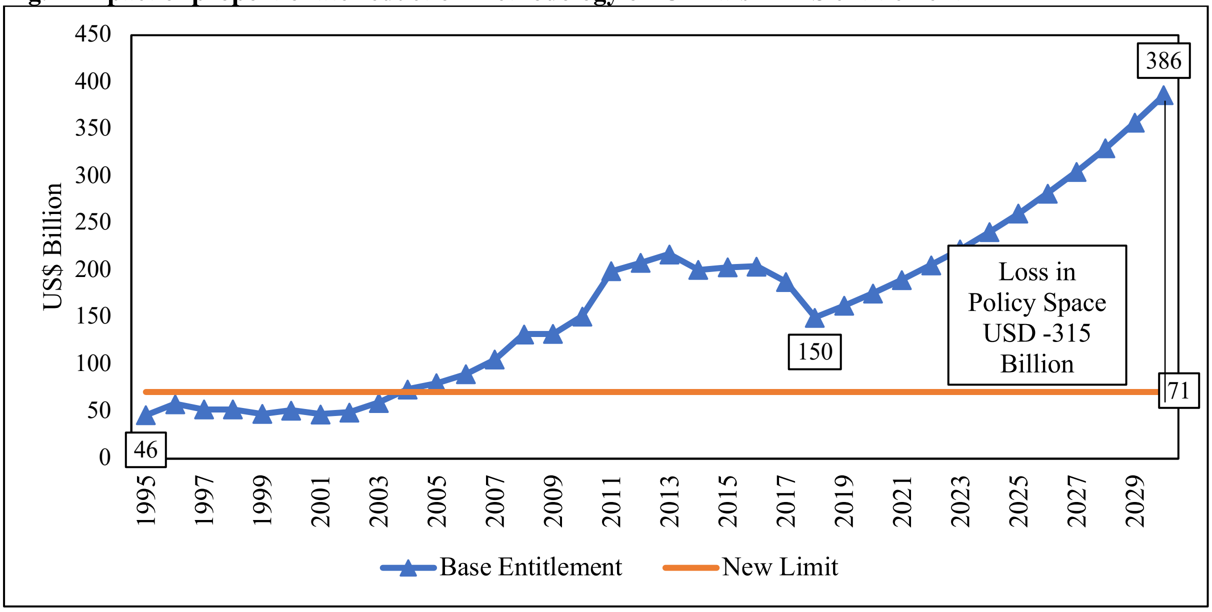
Table 5: Comparison of the projected TTDS entitlement in 2030 with the proposed limits

Members	***Projected TTDS entitlement in 2030**		**Fixed TTDS entitlement limit**		**Impact on policy space**	
	Billion US$	% VoP	Billion US$	% of VoP	Billion US$	% of VoP
1	**2**	**3**	**4**	**5**	**6 = (2-4)**	**7 = (3-5)**
Developed Total	**345**	**18.2**	**129**	**6.8**	**216**	**11.4**
Australia	9	10.4	2	2.7	7	7.7
Canada	13	13.4	4	4.1	9	9.3
EU	156	22.0	62	8.8	94	13.3
Norway	2	37.1	1	16.5	1	20.6
US	78	13.2	26	4.5	52	8.8
Developing Total	**1041**	**18.9**	**211**	**3.8**	**830**	**15.1**
Brazil	62	20.3	14	4.7	47	15.6
China	386	17.0	71	3.1	315	13.9
India	224	20.0	43	3.8	182	16.2
Indonesia	66	20.0	10	3.2	56	16.8
Kenya	8	20.0	2	4.1	6	15.9
LDC Total	**91**	**20.0**	**41**	**9.0**	**50**	**11.0**
Current Global TTDS Entitlement	**1476**	**18.8**	**380**	**4.8**	**1095**	**13.9**

Source: Authors' calculation based on FAOSTAT and notified Value of Production data.
Note: *TTDS entitlement is based on the projected value of agricultural production in 2030. It is calculated as the monetary value of the combined *de minimis* limit and final bound AMS entitlement

The steep reduction in policy space to provide trade distorting domestic support would incentivise countries to repurpose their agriculture subsidies from more trade distorting Amber box to least trade distorting Green box. In a report on repurposing agriculture subsidies (FAO, UNDP and UNEP, 2021) it has been suggested to phase out most distortive subsidies and encourage subsidies with environmental conditionalities. In the context of the AoA, Green box (Annex 2) has many provisions like the direct payments including decoupled income support and support for environmental programs which are least distortive as well as environment friendly when compared to Amber box support. However, these provisions were negotiated more than 25 years ago. The socio-economic conditions of most members, especially the developing and LDC members have changed drastically. Hence, these provisions need to be updated to address the 21st century policy concern of ensuring food security and livelihood security for farmers in an environmentally sustainable way (Brink & Orden, 2023).

Fig. 4 Impact of proportionate reduction methodology on China's TTDS entitlement



Source: Authors' calculation based on FAOSTAT Value of Production data.

In the upshot, some WTO members have proposed to discipline, and repurpose the financial resources from concentrating on trade distorting support to addressing climate change and biodiversity loss. However, whether the proposed approach ensures sustainability comprehensively i.e. environmental, social and economic will be assessed in the next section.

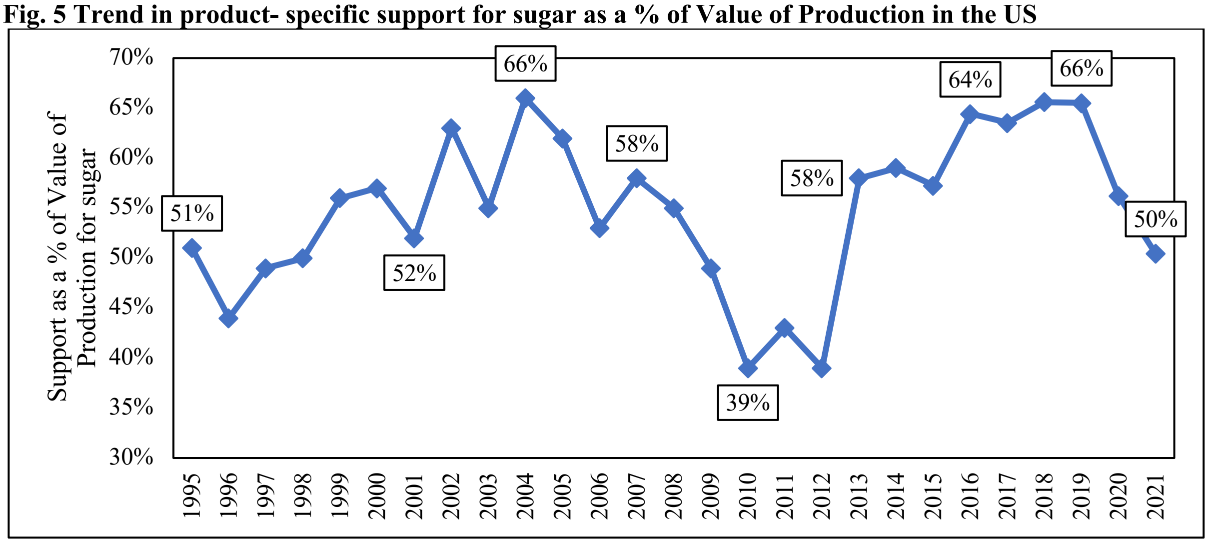
4. ARE THE PROPOSED DISCIPLINE UNDERMINING OR FURTHERING SUSTAINABILITY?

This section examines the implications of the proposed methodology to discipline agriculture domestic support on sustainability as well as on the policy space of WTO members. The results suggest that the approach is fundamentally questionable, and adversely affects social and economic sustainability in agriculture trade. The implications are elaborated as follows.

4.1 Questionable approach to Estimate Overall Trade-distorting Domestic Support Entitlement

The proposed methodology deliberately ignores the fundamental difference in flexibility between the final bound AMS and the combined *de minimis* limit. For instance, despite the fixed TTDS entitlement of US$ 10.48 Billion under the proposed methodology, Indonesia cannot provide product-specific support beyond 10 percent *de minimis* limit since it doesn't possess an AMS entitlement. This is not the case with members such as the United States, Japan, and the European Union who have an AMS entitlement. These members can not only provide massive product-specific support beyond their five percent *de minimis* limit, but also concentrate such support in a few products and heavily distort the international market.

Fig. 5 Trend in product- specific support for sugar as a % of Value of Production in the US



Source: Authors' calculation based on the US's Domestic Support notifications for the relevant years.

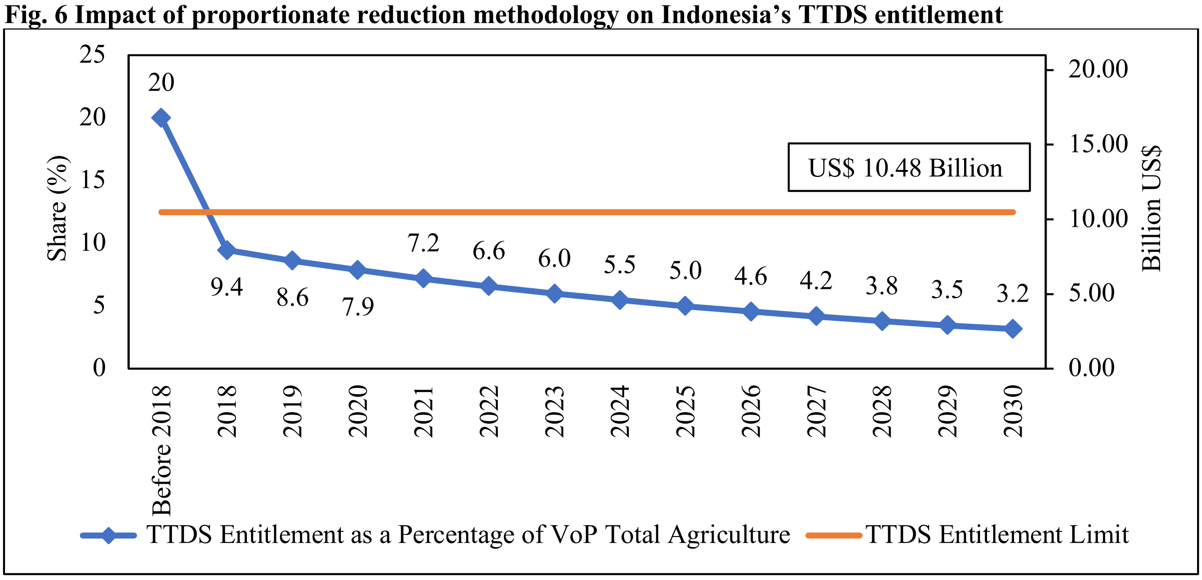
To illustrate, the US has consistently provided high product-specific support to its sugar industry (Figure 5). Likewise, the EU has provided support of up to 120 percent of VoP for white sugar and 67 percent of VoP for skimmed milk powder in the period 2000-2013 (WTO, 2017). In contrast, the combined *de minimis* entitlement does not allow members to provide product-specific support beyond their respective *de minimis* limit. The proposed methodology overlooks or ignores this key difference in policy space offered by the *de minimis* and AMS entitlements.

Additionally, it is a long-standing demand of many WTO members and groups including the G33, ACP, LDC, and African Group to eliminate the AMS entitlement as a first step towards domestic support reforms. Importantly, the developed members account for over 95 percent share in global final bound AMS entitlement (WTO, 2021c; 2023a). Though the proposed TTDS entitlement will cap all forms of support under Article 6, members with AMS entitlement can continue to give high-level product-specific support. Thus, asymmetry in terms of flexibility to provide support beyond *de minimis* remains under this approach. However, Costa Rica in its latest proposal has addressed this issue by suggesting limits on product specific support (WTO, 2023c). The proposal suggests the product-specific support of all the products to be aggregated to establish a product-specific AMS limit, which would be subject to the overall trade-distorting domestic support limit. Furthermore, members benefit from the flexibility to provide product-specific support, based on their share in global exports or share of imports in their domestic consumption.

4.2 UNDERMINING SOCIAL AND ECONOMIC SUSTAINABILITY

The TTDS entitlement limit for WTO members in percentage terms would steeply decline in future with growth in the VoP. For instance, the TTDS entitlement of Indonesia before the reduction was US$ 22 Billion in 2018, which will be reduced to US$ 10.48 Billion under the proposed methodology. As per this approach, the actual support of Indonesia under the current AMS, within *de minimis* limit, Blue and Development box cannot exceed the fixed TTDS entitlement limit of US$10.48 Billion from the base year onwards. As it is fixed in monetary terms, the TTDS limit would become extremely constraining as it first reduces from 20 to 9.4 percent in the base year 2018 and is projected to decline to 3.2 percent in 2030 (Figure 6). It will further tend to zero from 2030 onwards as the value of the new entitlement limit relative to growing VoP would decline. It implies the methodology will leave no policy space for the developing members to implement domestic support measures compatible with their prevailing socio-economic conditions. Farmers from developing and LDC members presently face numerous capacity constraints such as small landholding size, lack of appropriate infrastructure, and marketing problems, among others (IFAD, 2015; Merriott, 2016). The average farm-size in Kenya (0.86 hectares), and Bangladesh (0.54 hectares), for instance, is negligible in comparison to Australia (4331 hectares), and Canada (315 hectares) (Sharma et al. 2021). Inadequate support measures will expose low-income or resource-poor farmers to market risks, which compounds existing farm issues in developing and LDC members and leads to acute farm distress. In conclusion, the reduction of TTDS entitlement will further tilt the playing field against such poor farmers instead of levelling the playing field as claimed by the proponents of the proposals.

Fig. 6 Impact of proportionate reduction methodology on Indonesia's TTDS entitlement



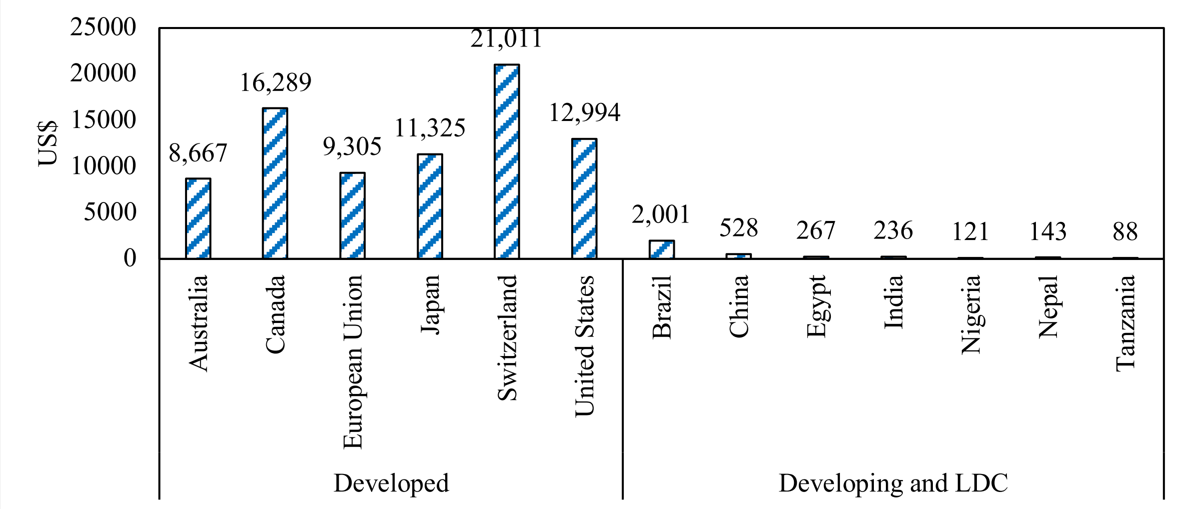
Source: Authors' calculation based on FAOSTAT Value of Production data.

4.3 Higher Reductions for Developing Members

As per this approach, the contribution to be made by developing members in the reduction of global TTDS would be much higher than the developed members. Before the reduction, the TTDS entitlement of the developing countries is estimated to be 19 percent of the Value of Production. This limit is projected to reduce to 3.8 percent by 2030 under the proposed methodology. On the other hand, the projected TTDS entitlement limit for the developed members is projected to decline from 18.2 percent in 2018 to 6.8 percent in 2030 (Table 5).

For developing members such as China, India, and Indonesia, the TTDS limit would range between three to four percent of their VoP, which is much lower than that of developed members such as the United States and Norway (Table 5). Additionally, per farmer TTDS entitlement limit for developing countries such as India, Egypt, Nigeria, and Nepal would be just a fraction of the entitlement of developed countries such as Switzerland, Canada, Japan, and the United States (Figure 7).

Fig. 7 Per-farmer support based on proposed TTDS entitlement for 2030 in US$



Source: Authors' calculation based on FAOSTAT Value of Production data and employment data from ILOSTAT.

4.4 Adverse Impact on LDC Members

The Chair's text (WTO, 2021b) provided that the LDCs were exempted from taking reduction commitments. However, it is to be noted that the proposal did not exempt LDCs from capping their TDDS with the proposed methodology. Even the capping of TDDS limit would steeply reduce their policy space as it is determined in fixed monetary terms (Table 6). Similar to developing country members, their policy space will shrink in percentage terms with an increase in their VoP.

Table 6: Projected TTDS entitlement with the proposed limit for selected LDC members

LDC members	Projected 2030 entitlement	Proposed TTDS entitlement limit	Projected 2030 entitlement	Proposed TTDS entitlement
	Billion US$		% of Value of Total Agriculture Production for 2030	
Bangladesh	10.32	4.72	20	9.1
Mali	5.40	1.89	20	7.0
Nepal	4.67	1.79	20	7.7
Tanzania	5.94	1.89	20	6.4
LDC Total	**90.53**	**40.53**	**20**	**9.0**

Source: Authors' calculation based on FAOSTAT and Domestic Support notifications.

Importantly, Costa Rica (WTO, 2023c) proposed to exclude LDCs from both capping and reducing their TTDS entitlement.

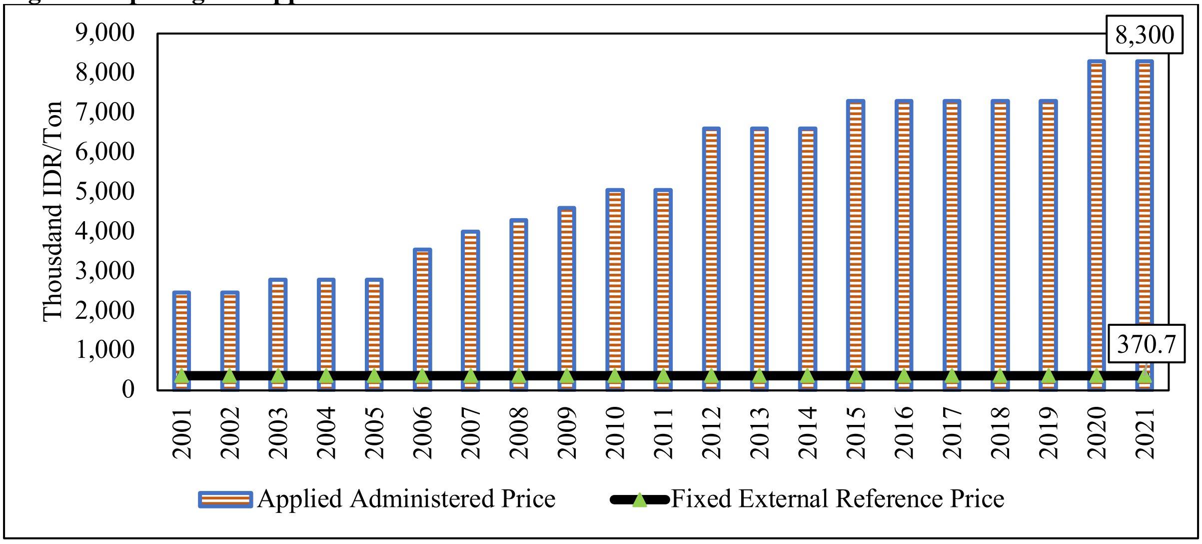
4.5 Ignored the Flaws in Market Price Support Methodology

Several developing and LDC members have price support measures in place to ensure remunerative prices for farmers and ensure food security to its population. State agencies in many countries such as India, Pakistan, Indonesia, and Bangladesh procure agricultural products at administered prices (Sharma, 2016). The Market Price Support (MPS) through these measures is the product of eligible production with the difference between the Applied Administered Price (AAP) and the External Reference Price (ERP). The ERP is based on the average export or import price of a product during the base period, generally, 1986-88. For acceding members, the base period is different from 1986-88. The developing countries are concerned that the comparison of current prices with historical prices of the commodity results in a subsidy calculation which is highly inflated and moreover imaginary product-specific support. Owing to the market price support methodology, the developing and LDC members are finding it extremely challenging to provide price support to their poor farmers (Sharma, 2018; Sharma et al., 2020; Thow et al. 2019).

For example, the ERP of wheat for Jordan is JoD 151.4/Tonne during the base period 1994-1996. The AAP for wheat was JoD 370/Tonne in 2013. As per its domestic support notification, the Market Price Support was 18 percent of the VoP for wheat in 2013 (WTO, 2017b). One of the reasons for support beyond the *de minimis* limit (10%) was the comparison of the current AAP (2013) with fixed External Reference Price-based on the 1994-96 price. If inflation is considered, the ERP increases from JOD151.4/Tonne to JoD 268/Tonne, resulting in a decline in market price support to 8 percent in 2013. Similarly, the ERP of Indonesian rice is 370.7 thousand IDR/Ton, whereas, the AAP for rice in 2021 was 8300 thousand IDR/Ton (Figure 8). The huge difference between AAP and ERP exaggerates the market price support, whereas when the ERP is compared with AAP after inflation adjustment, the difference is significantly reduced.

There is a need to improve the measurement of the MPS (Brink & Orden, 2023). Thus, more than 80 members are demanding to replace the fixed ERP with a dynamic External Reference Price based on recent export/import prices as the case with the Producer Support Estimate (PSE) methodology of the OECD, or updating it by considering inflation (WTO, 2022a). This issue has been side-lined under this approach.

Fig. 8 Comparing the Applied Administered Price and Fixed External Reference Price for Indonesian rice



Source: Authors' calculation based on Indonesia's Domestic Support Notification for the relevant years.

4.6 Undermining the Bali Peace Clause and development box

This approach will undermine the Bali peace clause (WTO, 2013), where the WTO members have agreed not to challenge the public stockholding programmes for food security purposes for exceeding their respective final bound AMS entitlement and *de minimis* limit commitments. To benefit from the peace clause, a member is required to notify the market price support to show that it has already or at risk of providing support to traditional staple crops beyond its commitment level. Importantly, market price support is covered under the Amber box. As per the proposed discipline, the current AMS along with other components of Article 6 of the AoA would be subject to the TTDS limit. A member must ensure that the sum of market price support and other support under Article 6 remains within the proposed TTDS limit. It is important to note that the proposed TTDS limit is further proposed to be accepted as a permanent solution for the PSH issue (WTO, 2023c). At present, the market price support programs are protected from WTO challenges due to the Bali peace clause. If the proposal as such is accepted, the market price support policies of the developing members will be challenged at the WTO when the expenditure leads to the country breaching its TTDS limit. The flaw in the MPS calculation methodology and the constraining TTDS entitlement limit would make the peace clause as well as the demand for a permanent solution redundant.

Another major setback for the developing members would be the indirect capping of flexibility under the Development box. This box permits these members to provide investment subsidies, and input subsidies generally available to low-income or resource-poor farmers without any financial limit under the AoA. Moreover, 52 developing members have notified expenditures under the development box at least once in the period between 2001 and 2014 (WTO, 2018b). The input subsidies under S&DT are increasingly being criticised for their adverse impact on the environment. However, poor farmers of the developing countries are greatly disadvantaged against the farmers of the developed countries due to various reasons including institutional problems and lack of adequate safety nets. Such concerns remain the primary reason for the justifying support under the development box. Subjecting the development box to the TTDS limit will make this S&DT provision ineffective from the developing countries' perspective.

Overall, the path suggested based on proportionate reduction methodology in the domestic support discussions at the WTO is not promoting sustainability comprehensively.

5. CONCLUSION

Many international organisations, countries and studies have called for disciplining and repurposing domestic support to agriculture to address the challenges of the 21st century such as food security and environmental concerns. One of the major concerns is the increasingly massive entitlement to provide domestic support which has serious implications for trade and sustainable agriculture. Some studies projected that the Total Trade-distorting Domestic Support (TTDS) increase to US$ 2 trillion by 2030 based on global AMS entitlement and the combined *de minimis* limit. At the WTO, members are seriously engaged in domestic support discussions within the framework of Article 20 of the AoA to achieve a substantial reduction in trade-distorting support. Some members have proposed to reduce the TTDS entitlement in the base year to 50 percent by 2030 and suggested that the WTO members except LDCs need to take reduction commitments proportionate to their size in the global entitlement during a base year. The resultant reduced TTDS entitlement limit will remain fixed in monetary terms and act as an upper limit for the support under the current AMS, *de minimis* limit, Blue and Development box. The motive for the proposed reduced TTDS entitlement limit is to enhance sustainability in agriculture by preventing the harmful impact of subsidies on the environment. Based on the final bound AMS and trend in the combined *de minimis* limit, the methodology proposed by some members, this study also finds that the TTDS entitlement would increase steeply from US$ 761 Billion to US$ 1476 Billion. In contrast to developed members, the share of developing countries and LDC members in the global entitlement would increase by 2030. It is mainly due to the higher combined *de minimis* limit of developing and LDC members than of developed members.

The proposed discipline can undermine sustainability on many accounts. First, the proposed methodology to measure TTDS entitlement is inherently flawed. It assumes that AMS entitlement and combined *de minimis* limit provide similar flexibility. It is incorrect to assume that a member with a high combined *de minimis* entitlement can concentrate the whole support in a few products as in the case of AMS entitlement. Second, instead of addressing the existing issues in the domestic support rules such as lack of entitlement for most developing members and outdated ERP, the proposed methodology gives a distorted picture of entitlement based on the concept of combined *de minimis* limit, and seeks to impose greater reduction commitments on developing members. Third, unlike the general perception, the LDC members would lose half of their flexibility due to the determination of the TTDS limit in fixed monetary terms. Fourth, the developing and LDC members would additionally suffer a massive loss in flexibility due to subjecting the Development box to the TTDS limit. Fifth, it leads to extremely low per-famer TTDS entitlement for developing and LDC members, whereas developed countries would continue to give high-level TTDS. Sixth, it will undermine the Bali peace clause as support for the public stockholding programme is accounted for in the Current AMS, which would be subject to the proposed TTDS entitlement. Along with the outdated ERP, the TTDS limit would make the hard-earned Bali peace clause redundant. Seventh, it will leave the low-income or resource-poor farmers without any safety net except through measures under the Green box. Eighth, it ignores the long-standing demand of developing and LDC members to eliminate the AMS entitlement to ensure a level playing field. Though AMS entitlement is subject to the TTDS limit, the flexibility for concentrating the product-specific support remains untouched.

Overall, the basic premise of the massive increase in the TTDS entitlement is questionable and fails to address the sustainability issue in a comprehensive manner. It severely undermines the socio-economic pillars of sustainability, ignores the existing imbalances in the AoA, and is biased against millions of low-income or resource-poor farmers from developing and LDC members. WTO members need to come together to make rules that promote equity and justice with effective S&DT provisions to achieve the social, economic, and environmental dimensions of sustainability that address the challenges of the 21st century.

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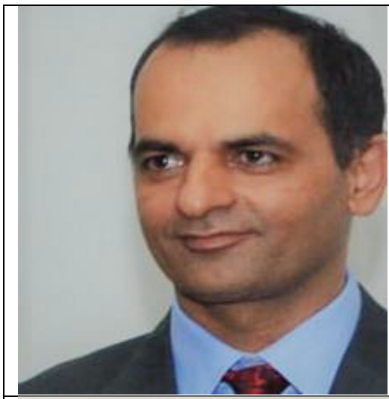	**Dr. Sachin Kumar Sharma** is working as an Associate Professor at the Centre for WTO Studies. He leads a dedicated team of lawyers and economists working on international trade issues with a key focus on agriculture. Currently, his research focuses on issues related to agricultural negotiations, food security, SDGs, FTAs and disputes, among others. Email: sksharma@iift.edu
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