

## WTO Green Box subsidies: Recent trends and lessons going forward

*Ranja Sengupta*

### EXECUTIVE SUMMARY

Green Box (GB) subsidies listed under Annex 2 of the WTO Agreement on Agriculture (AoA) – which can be given without limit due to their so-called “non-trade-distorting” nature – reinforce the strong element of inequity in the domestic support rules of the AoA. With the objective of informing the GB discussion with recent data, this brief analyzes data submitted by Canada in 2020 and identifies some recent trends in total GB support.

- a) There are 28 countries that gave *total GB subsidies* of over USD 100 million in 2016. The top five countries are China, the USA, the European Union, India and Japan. There is a significant gap between the amounts of subsidy given by the first three countries, at USD 197,631 million (China), USD 119,492 million (USA) and USD 68,245 million (EU) respectively, and the rest. Of the top five users, three are developed countries – the USA, the EU and Japan – while the other two – China and India – are large, populous developing countries.
- b) China is the highest user of subsidies on *general services* at USD 91,285 million. The USA and Japan follow with USD 12,540 million and USD 11,913 million each. The USA is by far the largest user of *domestic food aid*, having spent USD 102,243 million, with Cuba, Indonesia and the EU following far behind with USD 3,211 million, USD 1,659 million and USD 1,360 million respectively. China (with USD 17,295 million) and India (with USD 16,271 million) are the only major users of the GB for *public food stockholding* purposes.
- c) The Green Box subsidies of 13 countries have growth of above 200 per cent between average 2001-03 and average 2016-18 values, which means their total GB support more than tripled over this period. Another four countries have growth of over 100 per cent, which means their GB expenses more than doubled over the period. Total Green Box support of all WTO Members increased by 66 per cent over this period. It is important to note that some countries with lower increases still have high absolute amounts of support while for others, subsidies grew much more but are still pretty low in absolute terms.

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**Address:** 131 Jalan Macalister, 10400 Penang, MALAYSIA    **Tel:** 60-4-2266728/2266159    **Fax:** 60-4-2264505  
**Email:** [twn@twnetwork.org](mailto:twn@twnetwork.org)    **Website:** [www.twn.my](http://www.twn.my)

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- d) A total of 16 countries devoted more than 50 per cent of their GB support to general services, with Thailand, Chile, Colombia, New Zealand, Saudi Arabia, Canada and the Philippines contributing the top shares. The USA and Ecuador, followed by Indonesia, Cuba and Brazil, allocate most of their GB support to domestic food aid. However, all of these countries other than the USA are relatively small users in absolute terms. China and India are almost the only users of subsidies on public food stockholding programmes, but while for India this occupies the largest share of total GB expenses, for China the share in total GB support is small.

*Trade-distorting direct payments under the Green Box (covered by paragraphs 5-13, Annex 2, AoA)*

- e) China is the highest user of direct payments, which are deemed to be production-boosting and trade-distorting, with expenses of USD 89,041 million (2016), followed by the EU at USD 61,035 million, and then by Japan and the USA at much lower USD 5,427 million and USD 4,709 million respectively.
- f) The EU devoted the highest share of 88.61 per cent of its total GB support to direct payments, followed by Norway at 88.01 per cent, Turkey at 86.4 per cent and Switzerland at 71.8 per cent (averaged over 2016-18), though the latter three countries have much lower expenses in absolute terms. But this shows that these countries are using largely trade-distorting subsidies in the name of decoupled Green Box support.
- g) Six countries, namely, Norway (28.18 per cent), Switzerland (18.65 per cent), the EU (15.06 per cent), Iceland (9.87 per cent), Japan (6.26 per cent) and China (5.89 per cent), are giving direct payments to farmers in excess of 5 per cent of their annual value of production (VOP). Eight other countries are using direct payments ranging between 1 and 5 per cent of their VOP in 2016. These direct payments result in an additional entitlement over the *de minimis* limits prescribed under Article 6.4 of the AoA for trade-distorting subsidies. This is also additional to the Final Bound Aggregate Measurement of Support entitlements that some of these countries, e.g., the EU, Norway, Switzerland, Iceland and Japan, already enjoy.
- h) The EU's direct payments are the second highest in absolute terms and the third highest as a share of annual VOP (15.06 per cent). Japan, Norway, Switzerland and Iceland (which is not even among the top 28 GB users) are all relatively smaller users of direct payments in absolute values but have high shares as a percentage of VOP (at 6.26, 28.18, 18.65 and 9.87 per cent respectively). Therefore all these countries are using direct payments that are high in comparison with the size, and therefore the needs, of their agriculture sector.
- i) China is the highest absolute user of direct payments and has higher shares of direct payments in total GB (45.05 per cent) and annual VOP (5.89 per cent) compared with most other countries. However, the share in VOP is lower compared with the five countries above. This is because China is a very large economy with a very large agriculture sector and VOP.
- j) Some other countries have a high share of total GB to VOP but the share of direct payments is lower than 5 per cent of VOP. The most important example of this is the USA, whose total GB as a percentage share of VOP stands at a high 33.61 per cent but whose direct payments are only 1.32 per cent of VOP. These countries are high users of the Green Box in comparison with the size of their agriculture sector but not of trade-distorting direct payments.

While the massive amounts of total GB support by some countries may themselves be problematic for other countries, it is the trade-distorting component of direct payments under the GB that needs specific scrutiny. Such support should be compared with the size of the country's agriculture sector as expressed in terms of VOP.

Ideally all direct payments to producers, except for special circumstances such as natural disasters and other types of crisis, should be eliminated. At the minimum, direct payments should be capped based on VOP and/or other indicators such as farming population or employment, income and asset holdings.

As the World Trade Organization (WTO) heads towards its Twelfth Ministerial Conference, agricultural trade remains a critically important issue for developing countries and least developed countries (LDCs) in the negotiations.

The Agreement on Agriculture (AoA) of the WTO lays down rules for three pillars of agricultural trade, namely, market access, domestic support and export support. Of these, domestic support has been the most dynamic and controversial area, mainly because of inequitable rules dividing developed and developing countries. While most attention has gone to the rules regarding the Amber Box or Aggregate Measurement of Support (AMS),<sup>1</sup> it is the Green Box (GB) subsidies listed under Annex 2 of the AoA – which can be given without limit due to their so-called “non-trade-distorting” nature – that reinforce the strong element of inequity in the domestic support rules of the AoA.

With the objective of informing the GB discussion with recent data, this brief analyzes data submitted by Canada in 2020<sup>2</sup> and identifies some recent trends in total Green Box support, component-wise expenditure, the share of direct payments under paragraphs 5-13 or the trade-distorting support, and also the comparison of the GB as a percentage share of value of production. A summary of key findings is above and some concluding thoughts are shared at the end.

## A. Background

Annex 2 of the AoA allows “a publicly-funded government programme (including government revenue foregone) not involving transfers from consumers” provided the domestic support measures “meet the fundamental requirement that they have no, or at most minimal, trade-distorting effects or effects on production” (paragraph 1, Annex 2, AoA). However, the GB subsidies have received increasing attention in terms of their inequitable impacts and for thwarting the objective of domestic support disciplines for several reasons.

First, the GB allows richer countries to give very large and unlimited subsidies in the area of agriculture, which poor countries cannot afford. It is important to note that the GB is not pegged to the value of production of a country, unlike the *de minimis* limits on AMS support, as it is supposed to be de-linked from production levels. But secondly and more important, several developed countries, in particular the USA and the European Union (EU), have been accused of “box-shifting” and transferring Amber Box subsidies which would otherwise be counted under the AMS to the Green Box and therefore misusing the Annex 2 provisions.<sup>3</sup> This leads to a critical third point, which is that many of these subsidies given under Annex 2 are actually trade-distorting.

Subsidies covered under paragraphs 2-4 of Annex 2, namely, general services (paragraph 2), public stockholding for food security purposes excluding price support (paragraph 3) and domestic food aid (Paragraph 4), are not directed towards farmers and are generally agreed to be non-production-enhancing and non-trade-distorting. However, subsidies under paragraphs 5-13 cover direct payments to producers under different specific categories, which have been increasingly criticized for being production-boosting and trade-distorting. These include direct payments to producers (paragraph 5); decoupled income support

<sup>1</sup> While all WTO Members must restrict their trade-distorting or Amber Box subsidies under Article 6.3, most developed countries enjoy additional Final Bound AMS entitlements in addition to *de minimis* entitlements of 5% of the value of production (VOP) in a year. In comparison, most developing countries can grant only *de minimis* support pegged at 10% of the VOP.

<sup>2</sup> Update to Canada’s Analytical Tool on Domestic Supports, WTO document JOB/AG/190, 7 December 2020

<sup>3</sup> “Impact of Green Box Subsidies on Agricultural Productivity, Production and International Trade”, by Rashmi Banga, International Trade Working Paper, No. 2016/13, Commonwealth Secretariat, 2016

(paragraph 6); government financial participation in income insurance and income safety-net programmes (paragraph 7); payments (made either directly or by way of government financial participation in crop insurance schemes) for relief from natural disasters (paragraph 8); structural adjustment assistance provided through producer retirement programmes (paragraph 9); structural adjustment assistance provided through resource retirement programmes (paragraph 10); structural adjustment assistance provided through investment aids (paragraph 11); payments under environmental programmes (paragraph 12); and payments under regional assistance programmes (paragraph 13).

Theoretical and empirical literature<sup>4</sup> has by now clearly established that most of these subsidies are not, in effect, decoupled from production. Among the impacts that cause such distortion are risk effects, land price effects, credit effects, labour participation effects and expectations effects. Research by the United Nations Conference on Trade and Development (UNCTAD) (2007)<sup>5</sup> as well as Banga (2016) shows that the GB subsidies given by the USA and the EU helped them increase total factor productivity by 3.9 per cent and 4.6 per cent, and technical efficiency by 2.5 per cent and 4.8 per cent respectively. The research papers also indicate that disciplining such subsidies will help increase production and exports, reduce imports, and improve employment and wages for agricultural populations in developing countries.

In fact, several developing and least developed WTO Members and groupings have called for disciplines on GB support, in particular more transparency and accountability in its calculations and notifications and cuts to the trade-distorting elements. One of the most recent such calls was by the African Group.<sup>6</sup> It says:

*“On Green Box support, stricter disciplines – as stipulated in paragraph 5.3 below – are to be applied on the usage of support provided for in paragraphs 5-13 of Annex 2 to ensure that it meets the criteria of being no or minimally trade distorting. A cap is to be applied on the usage of the Green Box support with respect to measures within the scope of paragraphs 5-13 of Annex 2 of the AoA”* (paragraph 1.5).

The African Group’s document also proposes transparency rules in paragraph 5.3. However, there is as yet no other recent concrete proposal at the WTO to discipline GB support or to make it more transparent.

## **B. Trends in total Green Box subsidies and components**

The use of the GB points to the ability of countries with the financial power and the policy tools to effectively deploy such subsidies. Table 1 provides the *total GB and its composition* in the last three years for which data has been reported, i.e., 2016, 2017 and 2018. The countries are ranked from the highest user to the lowest based on 2016 data.<sup>7</sup>

There are 28 countries that gave *total Green Box subsidies* of over USD 100 million in 2016. The top five countries are China, the USA, the EU, India and Japan. There is a significant gap between the amounts of subsidy given by the first three, at USD 197,631 million (China), USD 119,492 million (USA) and USD 68,245 million (EU) respectively, and the rest. Of the top five users, three are developed countries – the USA, the EU and Japan – while the other two – China and India – are large, populous developing countries. Saudi Arabia, Ecuador, Costa Rica and Paraguay come at the lower end of these 28 countries with totals below USD 200 million. There are another four countries with total GB subsidies between USD 50 million and 100 million, namely, Georgia, Panama, the Dominican Republic and Tunisia with USD 75 million, USD 73 million, USD 59 million and USD 54 million respectively (not included in Table 1).

<sup>4</sup> For a quick overview of the literature on theoretical and empirical evidence, see Banga (2016), *ibid*.

<sup>5</sup> “Green Box Subsidies: A Theoretical and Empirical Assessment”, by UNCTAD India Team, May 2007

<sup>6</sup> African Group Elements on Agriculture, For Meaningful Development Outcomes at the Twelfth Ministerial Conference, WTO document JOB/AG/173, 25 November 2019

<sup>7</sup> Comparing notifications for 2016, 2017 and 2018, the maximum number of Members notified in 2016 so the analysis relies mostly on 2016 data as the end point.

**Table 1: Total and components of Green Box subsidies in top 28 users with total above 100 Mln USD (ranked by highest to lowest users in 2016), in USD Million**

WTO Member Name	Total Green Box			General Services			Domestic Food Aid			Public Stock Holding			Direct Payments		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
China	197631	N/A	N/A	91285	N/A	N/A	9	N/A	N/A	17295	N/A	N/A	89041	N/A	N/A
United States of America	119492	118185	N/A	12540	13358	N/A	102243	99561	N/A	0	0	N/A	4709	5266	N/A
European Union	68245	73984	N/A	5828	7351	N/A	1360	1641	N/A	23	0	N/A	61035	64991	N/A
India	19084	31443	22482	2813	3611	3537	0	0	N/A	16271	18041	17212	0	9791	1732
Japan	17506	16116	N/A	11913	10711	N/A	6	6	N/A	159	140	N/A	5427	5259	N/A
Cuba	6118	7297	7051	1713	1716	1800	3211	4198	3610	0	0	0	1194	1384	1641
Mexico	4124	3100	5139	1229	1040	1024	510	172	2007	0	0	0	2385	1886	2108
Switzerland	2717	2727	2749	767	762	775	0	0	0	0	0	0	1950	1965	1974
Thailand	2426	N/A	N/A	2379	N/A	N/A	0	N/A	N/A	0	N/A	N/A	46	N/A	N/A
Indonesia	2131	1894	1813	466	431	390	1659	1457	1349	6	6	65	0	0	9
Brazil	1952	1661	1591	670	236	307	982	1220	1174	173	90	78	127	115	33
Russian Federation	1848	2184	2150	1140	1462	1437	0	0	0	5	0	0	703	722	713
Canada	1647	N/A	N/A	1450	N/A	N/A	0	N/A	N/A	0	N/A	N/A	197	N/A	N/A
Peru	1432	1471	1077	1025	1026	613	396	428	454	0	0	0	10	17	11
Norway	1315	933	1166	123	138	142	0	0	0	2	2	2	1191	793	1022
Turkey	1239	N/A	N/A	168	N/A	N/A	0	N/A	N/A	0	N/A	N/A	1071	N/A	N/A
The Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	1188	N/A	N/A	741	N/A	N/A	0	N/A	N/A	0	N/A	N/A	448	N/A	N/A
Australia	1165	1633	N/A	793	999	N/A	0	0	N/A	0	N/A	N/A	372	635	N/A
Philippines	1027	885	898	904	734	699	0	0	0	89	101	133	34	50	66
Argentina	883	N/A	N/A	471	N/A	N/A	0	0	N/A	0	0	N/A	412	N/A	N/A
Israel	375	422	456	271	322	336	0	0	0	12	12	11	92	88	110
New Zealand	361	358	397	334	332	371	0	0	0	0	0	0	27	26	26
Colombia	287	N/A	N/A	265	N/A	N/A	0	N/A	N/A	0	0	N/A	23	0	N/A
Chile	286	328	352	279	257	343	0	0	0	0	N/A	0	7	71	9
Saudi Arabia, Kingdom of	157	207	N/A	142	195	N/A	0	0	N/A	15	13	N/A	0	0	N/A
Ecuador	132	218	230	20	20	32	112	198	198	0	0	0	0	0	0
Costa Rica	130	115	107	79	69	66	0	0	0	0	0	0	51	46	40
Paraguay	116	135	94	73	81	76	31	26	17	0	0	0	12	28	0

Data Source: Update to Canada's Analytical Tool on Domestic Supports, JOB/AG/190, 7 December, 2020

Note: 1) Excludes data of Members who did not notify in 2016.

2) N/A implies data was not notified

*General services* as categorized under paragraph 2 (a) to (g) of Annex 2 cover a wide range of policy tools including research, pest and disease control, training services, extension and advisory services, inspection services, marketing and promotion services, and infrastructural services. While China is the highest user of subsidies on general services at USD 91,285 million, the USA and Japan follow with USD 12,540 million and USD 11,913 million respectively.

The USA is by far the largest user of *domestic food aid*, having spent USD 102,243 million, with Cuba, Indonesia and the EU following far behind with USD 3,211 million, USD 1,659 million and USD 1,360 million respectively. This is not surprising as the USA has one of the most massive food aid programmes in the form of food stamps. Only eight of the 28 countries use domestic food aid (with Paraguay and China having negligible expenses).

China (USD 17,295 million) and India (USD 16,271 million) are the only major users of the GB for *public food stockholding* purposes, with Brazil, Japan and the Philippines being minor users.

However, *direct payments*, which club together subsidies specified under paragraphs 5 to 13 of Annex 2 of the AoA, are used by all of the top 28 users, with the exception of Indonesia, Saudi Arabia and Ecuador. China is the highest user with USD 89,041 million, followed by the EU at USD 61,035 million, and Japan and the USA at USD 5,427 and 4,709 million respectively. India's direct payments significantly fluctuated over 2016-18, making it difficult to locate the extent of subsidization over the period.

In addition, it is important to note that large amounts of COVID-19 subsidies were given by several developed countries in 2020, especially in the USA and the EU, using both their additional AMS entitlements as well as the Green Box provisions. This makes farmers in developing countries and LDCs further disadvantaged in global markets, which can hamper long-term production possibilities, and adversely impact livelihoods and incomes of the farmers, most of whom are poor and vulnerable with low levels of income, assets and factors of production.

Table 2: Growth in Total Green Box Subsidies between 2001 and 2016-18 for WTO Members with total GB of 50 Million USD, ranked highest to lowest by total GB

	Between 2001 and 2016	Different Time Periods	Between average 2001-03 and 2016-18	Different Time Periods
Georgia	1244.72		1574.12	
Argentina	1101.34		707.55	
Paraguay	598.17		675.03	
China	575.03		552.22	
India	376.84		382.80	
Indonesia	782.79		343.39	
Philippines	304.26		290.44	
Peru	323.88		288.00	
Cuba	308.26		262.20	
Colombia	135.90		261.22	
European Union	269.12		240.78	
New Zealand	311.99		224.92	
Chile	190.68		221.67	
Panama	4.97		160.24	
Thailand	118.20		128.59	
Norway	173.95		117.28	
United States of America	135.81		106.01	
Costa Rica	82.76		70.02	
Brazil	33.51		63.89	
Mexico	60.87		56.10	
Israel	5.98		44.37	
Taiwan, Penghu, Kinmen and Matsu	57.96	2002 to 2016	43.37	2002-04 to 2016-18
Ecuador	-5.67	2014 to 2016	38.82	2014-16 to 2016-18
Australia	59.94		36.52	
Switzerland	24.81		11.96	
Tunisia	27.43		9.35	
Canada	48.60		6.84	
Saudi Arabia, Kingdom of	-12.62	2006 to 2016	-3.07	2006-08 to 2016-18
Japan	-16.47		-11.67	
Dominican Republic	-54.36		-12.30	
Turkey	-2.95	2002 to 2016	-17.89	2002-04 to 2016-18
Russian Federation	6.79	2012 to 2016	-17.99	2012-14 to 2016-18
All WTO Members	220.58		65.97	

Data Source: Update to Canada's Analytical Tool on Domestic Supports, JOB/AG/190, 7 December, 2020

Note: 1) Excludes data of Members who did not notify in 2016.

2) For those who reported 0, N/A or were not Members in 2001, the base year is taken as 2002-2004, or the first 3 years when

3) For Growth rate based on three-year averages, the 3 year averages are calculated excluding missing data.

4) 2016 is the latest year for which maximum number of notified data is available.

5) WTO Members with Total GB between 50-100 mln USD is marked in grey. The others have total GB over 100 mln USD.

Table 2 looks at *total periodic growth* between 2001 and 2016 (considering only end values) in total GB support by the top 32 users with amounts above USD 50 million in 2016.<sup>8</sup> In order to eliminate end-point specificities, the table also provides total periodic growth between average 2001-03 GB support and average 2016-18 GB support, and the countries are ranked by the latter indicator. Georgia's GB grew the most, by 1,574 per cent, over this period but over a low base level (being one of the lowest users within the group, with USD 75 million). Thirteen countries have growth of above 200 per cent, which means their total GB support has more than tripled over this period. Another four countries have growth of over 100 per cent, which means their GB expenses more than doubled over the period. Total Green Box support of all WTO Members increased by 66 per cent over this period.

Five countries, namely, Saudi Arabia, Japan, the Dominican Republic, Turkey and the Russian Federation, show declines in GB support. However, it is important to note that high or low increases must be seen in combination with absolute amounts of support in order to get the real picture. So some countries with lower increases still give high absolute amounts of support while for others, as clear in the case of Georgia, subsidies grew much more but are still pretty low in absolute terms.

Another indicator that is interesting is how each country is using the different options under Annex 2. Table 3 measures the percentage share of each component of GB support in the top 28 countries' total for 2016, 2017 and 2018. Comparing 2016 data for which maximum information is available, Thailand (98.09 per cent), Chile (97.49 per cent), Colombia (92.58 per cent), New Zealand (92.53 per cent) and Saudi Arabia

<sup>8</sup> Countries with GB above USD 50 million are considered here as two countries with USD 50-100 million GB support have relatively high growth rates.

Table 3: Percentage (%) share of different components in total GB subsidies in top 28 users with total above 100 Mln USD

WTO Member Name	General Services			Domestic Food Aid			PSH			Direct Payments		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Argentina	53.31	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	46.69	N/A	N/A
Australia	68.09	61.14	N/A	0.00	0.00	N/A	0.00	N/A	N/A	31.91	38.86	N/A
Brazil	34.33	14.20	19.28	50.33	73.46	73.79	8.85	5.40	4.88	6.49	6.93	2.05
Canada	88.05	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	11.95	N/A	N/A
Chile	97.49	78.38	97.55	0.00	0.00	0.00	0.00	N/A	0.00	2.51	21.62	2.45
China	46.19	N/A	N/A	0.00	N/A	N/A	8.75	N/A	N/A	45.05	N/A	N/A
Colombia	92.58	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	7.95	N/A	N/A
Costa Rica	60.53	60.24	62.15	0.00	0.00	0.00	0.00	0.00	0.00	39.47	39.76	37.85
Cuba	28.00	23.51	25.52	52.49	57.53	51.20	0.00	0.00	0.00	19.52	18.97	23.28
Ecuador	14.92	9.14	14.04	85.08	90.86	85.96	0.00	0.00	0.00	0.00	0.00	0.00
European Union	8.54	9.94	N/A	1.99	2.22	N/A	0.03	0.00	N/A	89.43	87.85	N/A
India	14.74	11.48	15.73	0.00	0.00	N/A	85.26	57.38	76.56	0.00	31.14	7.71
Indonesia	21.88	22.77	21.50	77.86	76.93	74.39	0.27	0.30	3.59	0.00	0.00	0.52
Israel	72.36	76.28	73.54	0.00	0.00	0.00	3.16	2.79	2.40	24.48	20.93	24.06
Japan	68.05	66.46	N/A	0.04	0.04	N/A	0.91	0.87	N/A	31.00	32.63	N/A
Mexico	29.79	33.54	19.93	12.37	5.56	39.05	0.00	0.00	0.00	57.84	60.83	41.01
New Zealand	92.53	92.75	93.49	0.00	0.00	0.00	0.00	0.00	0.00	7.47	7.25	6.51
Norway	9.32	14.83	12.19	0.00	0.00	0.00	0.12	0.23	0.20	90.55	84.94	87.61
Paraguay	62.81	60.21	81.44	26.59	19.24	18.40	0.00	0.00	0.00	10.60	20.55	0.16
Peru	71.62	69.78	56.87	27.65	29.09	42.15	0.00	0.00	0.00	0.73	1.13	0.99
Philippines	88.01	82.96	77.80	0.00	0.00	0.00	8.71	11.43	14.80	3.28	5.60	7.40
Russian Federation	61.72	66.94	66.84	0.00	0.00	0.00	0.24	0.00	0.01	38.04	33.06	33.15
Saudi Arabia, Kingdom of	90.38	93.83	N/A	0.00	0.00	N/A	9.62	6.17	N/A	0.00	0.00	N/A
Switzerland	28.24	27.94	28.19	0.00	0.00	0.00	0.00	0.00	0.00	71.76	72.06	71.81
Thailand	98.09	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	1.91	N/A	N/A
Taiwan, Penghu, Kinmen and Matsu	62.33	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	37.67	N/A	N/A
Turkey	13.53	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	86.47	N/A	N/A
United States of America	10.49	11.30	N/A	85.56	84.24	N/A	0.00	0.00	N/A	3.94	4.46	N/A

Data Source: Update to Canada's Analytical Tool on Domestic Supports, JOB/AG/190, 7 December, 2020  
 Note: 1) Excludes data of Members who did not notify in 2016.  
 2) N/A implies data was not notified

(90.38 per cent) spent over 90 per cent of their GB support on general services, while Canada (88.05 per cent) and the Philippines (88.05 per cent) also spent high shares on this component. A total of 16 countries devoted more than 50 per cent of their GB support to general services.

The USA (85.56 per cent) and Ecuador (85.08 per cent), followed by Indonesia (77.86 per cent), Cuba (52.49 per cent) and Brazil (50.33 per cent), allocate most of their GB to domestic food aid. However, all of these countries other than the USA are relatively small users in absolute terms.

India devoted 85.26, 57.38 and 76.56 per cent of its total GB support to public stockholding (PSH) programmes in 2016, 2017 and 2018 respectively, marking such programmes as an important policy tool for India. This does not include price support to farmers as that is counted under the Amber Box under the provisions of Footnote 5 of paragraph 3 on PSH under Annex 2. Interestingly, even though China is a large user of PSH subsidies in absolute terms, the component's share in China's total GB support is only 8.75 per cent. The Philippines increased the share and absolute amount of PSH subsidies (at USD 133 million) over 2016-2018, but remains a small user in absolute terms in comparison with China and India.

### C. Trade-distorting Green Box support

As discussed in section A above, it is the direct payments to agricultural producers specified under paragraphs 5 to 13 of Annex 2 of the AoA that have been the most controversial for their production-boosting and trade-distorting impacts. Table 4 puts together the absolute values and share of all direct payments in total Green Box support of the top 28 GB user countries with total expenditures ranging between USD 197,631 million and USD 116 million for the latest three years for which some data is available. The table ranks countries with the highest to lowest shares of direct payments in their total GB support, based on average amounts given over 2016-18, when data has been notified. The averages address problems regarding missing data and fluctuations in values. In the last column, the table provides the share of each of these 28 countries in total direct payments of all WTO Members as listed by Canada's compilation (2020).

Table 4: Countries ranked by highest to lowest share of direct payments in total GB (based on 2016-2018 average) in countries with GB over 100 Mln USD

WTO Member Name	Direct Payments (Mln USD)				Direct Payments as % of total GB				Share of Each country in World Total Direct payments (Average 2016-18)
	2016	2017	2018	Average 2016-2018 (excluding missing data)	2016	2017	2018	Average 2016-2018 (excluding missing data)	
European Union	61035	64991	N/A	63013	89.43	87.85	N/A	88.61	35.68
Norway	1191	793	1022	1002	90.55	84.94	87.61	88.01	0.57
Turkey	1071	N/A	N/A	1071	86.47	N/A	N/A	86.47	0.61
Switzerland	1950	1965	1974	1963	71.76	72.06	71.81	71.87	1.11
Mexico	2385	1886	2108	2126	57.84	60.83	41.01	51.59	1.20
Argentina	412	N/A	N/A	412	46.69	N/A	N/A	46.69	0.23
China	89041	N/A	N/A	89041	45.05	N/A	N/A	45.05	50.41
Costa Rica	51	46	40	46	39.47	39.76	37.85	39.07	0.03
The Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu	448	N/A	N/A	448	37.67	N/A	N/A	37.67	0.25
Australia	372	635	N/A	503	31.91	38.86	N/A	35.96	0.28
Russian Federation	703	722	713	713	38.04	33.06	33.15	34.58	0.40
Japan	5427	5259	N/A	5343	31.00	32.63	N/A	31.78	3.02
Israel	92	88	110	97	24.48	20.93	24.06	23.13	0.05
Cuba	1194	1384	1641	1406	19.52	18.97	23.28	20.62	0.80
India	0	9791	1732	3841	0.00	31.14	7.71	15.78	2.17
Canada	197	N/A	N/A	197	11.95	N/A	N/A	11.95	0.11
Paraguay	12	28	0	13	10.60	20.55	0.16	11.67	0.01
Chile	7	71	9	29	2.51	21.62	2.45	8.98	0.02
Colombia	23	0	N/A	11	7.95	N/A	N/A	7.95	0.01
New Zealand	27	26	26	26	7.47	7.25	6.51	7.06	0.01
Philippines	34	50	66	50	3.28	5.60	7.40	5.33	0.03
Brazil	127	115	33	91	6.49	6.93	2.05	5.27	0.05
United States of America	4709	5266	N/A	4988	3.94	4.46	N/A	4.20	2.82
Thailand	46	N/A	N/A	46	1.91	N/A	N/A	1.91	0.03
Peru	10	17	11	13	0.73	1.13	0.99	0.95	0.01
Indonesia	0	0	9	3	0.00	0.00	0.52	0.16	0.00
Ecuador	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Saudi Arabia, Kingdom of	0	0	N/A	0	0.00	0.00	N/A	0.00	0.00
<b>Total All Members</b>	<b>170679</b>	<b>93178</b>	<b>9574</b>	<b>176630</b>					<b>100.00</b>

Data Source: Update to Canada's Analytical Tool on Domestic Supports, JOB/AG/190, 7 December, 2020

Note: 1) Excludes data of Members who did not notify in 2016.

2) The average figures exclude missing data when Members have not notified.

3) N/A implies data was not notified

4) The average value for all Members is derived by adding average 2016-18 values for each Member.

According to Table 4, China is the highest user in absolute terms with an average expense of USD 89,041 million over 2016-18, accounting for 50.41 per cent of total direct payments made by all WTO Members over this period (last column in Table 4). The European Union is the second highest user of direct payments, having spent USD 63,013 million, and accounts for 35.68% of total direct payments made by all Members over this period. The EU devoted the highest share of 88.61 per cent of its total GB support to direct payments, followed by Norway at 88.01 per cent, Turkey at 86.4 per cent and Switzerland at 71.8 per cent, though the latter three countries have much lower expenses in absolute terms. But this shows that these countries are using largely trade-distorting subsidies in the name of decoupled support.

#### D. Value of production and Green Box support

The share of direct payments in total Green Box support of each country is a good indicator of how each country is using its basket of options but does not allow us to make useful comparisons between countries. Absolute levels of trade-distorting support on direct payments to producers or even its share in total direct payments given by all WTO Members do not give us the complete picture or enable us to compare due to different sizes of the economies and their agriculture sectors. What may be justified for a large agriculture sector may not be justified for a smaller-sized agriculture sector. Therefore the value of production (VOP) in the agriculture sector is a useful tool for comparing between countries. In fact, Amber Box *de minimis* support is articulated as a share of VOP. Even though Green Box support under Annex 2 is supposed to be de-linked from production, in reality direct payments are not. Therefore VOP remains a useful indicator for comparison.



Table 5 calculates direct payments as a percentage of VOP for 2016, 2017 and 2018. If we look at the more complete data for 2016, six countries, namely, Norway (28.18 per cent), Switzerland (18.65 per cent), the EU (15.06 per cent), Iceland (9.87 per cent), Japan (6.26 per cent) and China (5.89 per cent), are giving direct payments to farmers in excess of 5 per cent of their annual VOP.<sup>9</sup> Out of these, the top three countries are exceeding a share of 15 per cent of VOP. The *de minimis* limits prescribed for trade-distorting AMS subsidies under Article 6.4 of the AoA are 5 per cent of VOP for developed and 10 per cent of VOP for

Table 5: Countries ranked by highest to lowest share of direct payments in annual value of production in 2016, with corresponding share of total GB in annual VOP

WTO Member Name	Direct payments as % of VOP			Total GB subsidies as % of VOP		
	2016	2017	2018	2016	2017	2018
Norway	28.18	18.94	24.92	31.12	22.29	28.45
Switzerland	18.65	18.77	18.23	25.99	26.04	25.39
European Union	15.06	14.64	N/A	16.83	16.66	
Iceland	9.87	N/A	N/A	16.99		
Japan	6.26	6.21	N/A	20.21	19.04	
China	5.89	N/A	N/A	13.07		
Mexico	4.90	3.53	3.70	8.47	5.81	9.03
Taiwan, Penghu, Kinmen and Matsu	3.34	N/A	N/A	8.86		
Georgia	2.92	2.83	2.74	9.21	7.89	6.30
Argentina	1.55	N/A	N/A	3.32		
United States of America	1.32	1.43	N/A	33.61	32.00	
Moldova, Republic of	1.20	N/A	N/A	1.75		
Turkey	1.19	N/A	N/A	1.38		
Israel	1.18	1.07	1.30	4.83	5.09	5.39
Costa Rica	0.99	0.78	1.71	2.50	1.97	4.53
Hong Kong, China	0.95	0.79	0.88	14.36	8.07	12.16
Russian Federation	0.85	0.82	0.83	2.25	2.49	2.51
Kyrgyz Republic	0.81	0.00	N/A	1.03	1.39	
Australia	0.79	1.37	N/A	2.47	3.52	
Panama	0.44	0.51	0.43	3.21	10.27	5.98
Canada	0.42	N/A	N/A	3.54		
Tunisia	0.27	0.17	0.30	1.08	0.85	0.87
New Zealand	0.22	0.16	0.15	2.94	2.27	2.36
Seychelles	0.20	0.09	N/A	11.39	7.87	
Paraguay	0.18	0.35	0.00	1.71	1.70	1.14
Thailand	0.13	N/A	N/A	6.54		
Colombia	0.12	N/A	N/A	1.62		
Philippines	0.11	0.15	0.20	3.34	2.70	2.72
Brazil	0.09	0.07	0.02	1.34	1.02	1.08
Uruguay	0.09	N/A	N/A	0.80		
Peru	0.08	0.11	0.07	10.38	9.75	6.88
Chile	0.05	0.44	0.06	2.04	2.04	2.28
Botswana	0.02	0.18	N/A	4.86	15.74	
Lao People's Democratic Republic	0.00	N/A	N/A	0.42		
Bolivia, Plurinational State of	0.00	0.00	0.00	0.00	0.00	0.00
Cambodia	0.00	0.00	0.01	0.04	0.05	0.10
Cameroon	0.00	0.00	0.00	0.00	0.00	0.00
Côte d'Ivoire	0.00	0.00	0.00	0.00	0.00	0.00
Dominican Republic	0.00	0.00	0.00	1.65	0.46	0.63
Ecuador	0.00	0.00	0.00	1.45	2.50	2.83
Egypt	0.00	N/A	N/A	0.00		
India	0.00	2.35	0.42	5.33	7.56	5.49
Indonesia	0.00	0.00	0.01	1.55	1.33	1.28
Jamaica	0.00	N/A	N/A	1.91		
Malawi	0.00	N/A	N/A			
Mali	0.00	N/A	N/A	0.00		
Mauritius	0.00	0.00	0.00	2.09	1.87	2.87
Nicaragua	0.00	N/A	N/A	0.08		
Nigeria	0.00	N/A	N/A	0.00		
Oman	0.00	0.00	0.00	12.54	5.79	5.40
Saint Vincent and the Grenadines	0.00	0.00	0.00	2.97	3.26	3.38
Samoa	0.00	N/A	N/A	0.18	0.25	
Saudi Arabia, Kingdom of	0.00	N/A	N/A	0.91	1.19	
Singapore	0.00	0.00	0.00	0.00	0.00	0.00
Sri Lanka	0.00	N/A	N/A	0.15		
Tajikistan	0.00	0.00	0.00	0.00	0.00	0.00

Data Source: Update to Canada's Analytical Tool on Domestic Supports, JOB/AG/190, 7 December, 2020  
Excludes data of Members who did not notify in 2016.

<sup>9</sup> All shares above 5 per cent of VOP are marked in grey in Table 5.

developing countries. Therefore the five developed countries at the top are using just direct payments in excess of the 5 per cent of VOP that their AMS is subjected to. China, being a developing country, gives direct payments in excess of 5 per cent of VOP but below the 10 per cent limit applicable to developing countries. Eight other countries are using direct payments ranging between 1 and 5 per cent of their VOP in 2016. The point to note is that all these are in effect additional entitlements to use trade-distorting subsidies over and above the *de minimis* limits on the Amber Box of the AoA. This is also additional to the Final Bound AMS entitlements that some of these countries, e.g., the EU, Norway, Switzerland, Iceland and Japan, already enjoy.

Comparing the results from Table 4 and Table 5, it is clear that both China and the EU use high direct payments in absolute terms. But the EU also has one of the highest direct payments both as a share of total GB support as well as a share of annual VOP. China, in spite of being the highest absolute user of direct payments, shows relatively lower shares in total GB support and annual VOP. The latter is because China is a very large economy with a very large agriculture sector and VOP. Japan, Norway, Switzerland and Iceland (which is not even among the top 28 GB users) are all relatively smaller users of direct payments in absolute values. But they are using direct payments that are high in comparison with the size of their agriculture sector.

When we look at the corresponding figures of total GB support as a percentage of VOP in Table 5, these same six countries also have some of the highest shares in VOP. Some other countries have a high share of total GB support to VOP but the share of direct payments is lower than 5 per cent of VOP. The most important example of this is the USA, whose total GB support as a percentage share of VOP stands at a high 33.61 per cent but whose direct payments are only 1.32 per cent of VOP. Oman (12.54 per cent), Hong Kong China (14.36 per cent), Seychelles (11.39 per cent) and Peru (10.38 per cent) also gave total GB support amounting to over 10 per cent of VOP. In total, there are 16 countries with GB support over 5 per cent of VOP, including 11 countries with such support above 10 per cent of VOP, and five with support between 5 and 10 per cent of VOP.

## **E. Conclusion**

Twenty-eight countries used total GB support in excess of USD 100 million and another four countries used between USD 50 and 100 million per year in 2016. While the massive amounts of total GB support by some countries may themselves be problematic for other countries, it is the trade-distorting component of direct payments under the Green Box that needs specific scrutiny under the WTO trade rules. Further, such support should be compared with the size of the country's agriculture sector as expressed in terms of VOP. In fact, other variables such as farming population or employment should also be considered. Since the Green Box is meant to fulfil critical needs of the agriculture sector, and not just boost agricultural production in general, indicators of farmers' incomes, factors of production (as referred in paragraph 6 of Annex 2) and assets may also be included in such analysis. The use of the Green Box, and direct payments in particular, can be justified only when rationalized by the size and needs of the agriculture sector, especially of specific constituencies within it, such as low-income and resource-poor farmers.

Our analysis, limited to the VOP indicator, shows that when most countries can use only a *de minimis* amount of Amber Box support, six countries are using direct payments under the Green Box in excess of 5 per cent of the annual value of production (the minimum *de minimis* limit), with this share going as high as 28 per cent. Out of these six countries, five are developed countries and one is a developing country. Eight other countries are using direct payments ranging between 1 and 5 per cent of their VOP in 2016.

Such use of direct payments gives additional policy space to deploy trade-distorting subsidies above the *de minimis* and additional Final Bound AMS entitlements, and is far in excess of the comparative size of the agriculture sector for some countries. Ideally all direct payments to producers, except for special circumstances such as natural disasters and other types of crisis, should be eliminated. At the minimum, direct payments should be capped based on VOP as analyzed in this paper. Other indicators such as population or employment, income and asset holding can also be used.

Different VOP-related capping options may be considered. It may be capped at 5 per cent of VOP for all countries. If special and differential treatment is to be considered, it may be capped at 5 per cent for developed countries and at 10 per cent for a developing country. This will still give countries additional entitlements above the *de minimis* that is applicable to the AMS but will at least restrict and minimize the damaging impact of such subsidies on the agriculture sector of those countries which do not or cannot use such subsidies.

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**Ranja Sengupta** is a senior researcher with the *Third World Network*.