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WTO and policy space for agriculture and food security: issues for China and India

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Abstract The US has challenged the product-specific support to foodgrains by China in the WTO claiming that China has breached its commitments under WTO by providing more than US\$100 billion as product-specific support to wheat, rice and corn in 2015. The main issue is the price support backed procurement of foodgrains for food security purposes. India too implements this type of policy, this case also has implications for India as well. China implements the Minimum Procurement Price policy for price stabilization, protecting farmers from price volatility and manage food supplies. India too procures foodgrains mainly rice and wheat at Minimum Support Price (MSP) for distribution to the poor at subsidised prices through the public distribution system (PDS). In fact, with 320 million people in India and China being undernourished, ensuring food security remains a major concern in both the countries. To verify US claim about the extent of domestic support in China, in this paper we examine the policy space available for product-specific support in China and India. Our findings show that as against the claim of product-specific support of more than US\$100 billion it is just US\$17 billion. We also highlight different aspects of food security, domestic support in US and the need for a level-playing field in international trade.

Keywords WTO, Amber box, Price support, China, India

JEL classification F13, F14, F51, Q17, Q18

1 Introduction

Globally of the 803 million people who do not have access to sufficient food 24.4% live in India and 15.5% in China (FAO 2018). Ensuring food security of such a huge mass is a big challenge for both the countries. To eliminate hunger by 2030 as outlined in the United Nation Sustainable Development Goals (SDGs), a vibrant agriculture is crucial. However, agriculture in both countries is dominated by small landholdings and is characterised by the low level of agricultural productivity and high price volatility. While, binding commitments under Agreement on Agriculture (AoA) pose severe threats to the efforts to eliminate hunger and improve nutrition security. The US-China dispute regarding domestic support to agriculture by China is an example of attack on the policy space to implement

food security and agriculture policy in the developing countries.

In September 2016, the US challenged China's provision of market price support for rice, wheat and corn for its being in excess of the commitment under WTO rules (WTO 2016a). The analysis by the United States Trade Representative (USTR) has shown China's breach of the applicable permissible limit under the WTO rules continuously since 2012. The level of support provided to these crops in 2015 has been reported to have more than US\$100 billion (USTR 2016). It argues that through market price support, China has maintained domestic prices of these commodities above world market prices, influencing domestic production decisions and displacing imports of cereals. It is also argued that "the actions of the Chinese government and increasingly those of other advanced developing countries are having a detrimental

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impact on America's farmers and ranchers". The 'other advanced developing countries' here may include India also. The main issue in its complaint is the procurement of foodgrains at the administered prices by the Chinese government in excess of de minimis limits under the Agreement on Agriculture (AoA) of WTO. The US is playing a victim card by blaming agricultural policies of developing countries for being detrimental to its farmers and wants market access in developing countries for its highly subsidised agricultural commodities.

Market price support policy to agriculture is not unique to China. A number of developing countries also provide price support to agriculture linking it with their national food security programmes. Price and procurement policies are an important instrument to stabilise or even guarantee incomes to the resource-poor farmers (South Centre 2015). An integral element of the food security programmes in developing countries is the intervention by the government for stabilisation of the prices of commodities such as staple cereals. For example, Sinograin in China, Food Corporation of India (FCI) in India, Preum BULOG in Indonesia, the National Cereals and Produce Board (NCPB) in Kenya, PASSCO in Pakistan, and Turkish Grain Board (TMO) in Turkey implement buffer stocking policy by procuring grains from farmers if their market prices fall below their established support levels (Sharma 2016).

The ability of developing countries to procure foodgrains at administered prices, however, is significantly circumscribed by the provisions of the AoA as the different components of food security, that is, procurement, stockholding and distribution of foodgrains are treated differently in the AoA. The expenditure related to distribution and stockholding of foodgrains is permissible without any limit under Green Box (WTO 2002). However, the procurement of foodgrains at administered prices is limited by the rules of the WTO and covered under Amber Box that includes trade distorting support. For many developing countries, the policy space for implementing programmes aimed at food security has been eroding due to shrinking space under the Amber Box (Sharma 2016). In fact, the provisions related to calculating support arising from procurement of foodgrains at administered prices are crucial to understand the problems.

In this context, we assess the policy space available in China and India - the two most populated countries - in implementing the food security policy to protect interest of the poor farmers and consumers. China implements a policy of Minimum Purchase Price (MPP) for foodgrains through the National Development and Reform Commission (NDRC) that announces MPP in consultation with the Ministry of Agriculture and other government institutions (WTO 2016). In India, the Food Corporation of India (FCI) procures foodgrains, mainly wheat and rice, at the Minimum Support Prices (MSP) and distributes these to the poor at subsidised prices through the public distribution system (PDS). The main objective of the agricultural price policy in India is to protect farmers as well as consumers from the price fluctuations. India's National Food Security Act (NFSA) seeks to make right to food a legal entitlement by providing subsidised foodgrains to nearly two-thirds of the population. Overall, price support backed procurement of foodgrains is an important element in food security strategy of the two most populous countries of the world to eliminate hunger and undernourishment.

In this paper, the product-specific support for foodgrains in China and India is calculated to assess the available policy space for implementing the price support policy for public stockholding to ensure food security. An attempt is also made to verify the US claim that the level of support provided to wheat, rice and maize by China is in excess of its commitment.

Rest of the paper is organized as follows. Section 2 discusses methodology and provisions of the AoA applicable to domestic support. Section 3 and Section 4 provide a estimates of the product-specific support to foodgrains in China and India respectively. Section 5 deals with the complaint filed by the US to the WTO against China on price support to foodgrains and other related issues. The final section summarises main finding of the study.

2 Methodology

Domestic support to agriculture sector under AoA is classified into three categories, popularly called as Amber, Green and Blue boxes. Domestic support measures under Green Box should meet the fundamental requirement that these have minimal impact on trade and production and shall not have the

effect of providing price support to producers. A member country can spend without any financial limitation on measures that fit the description of the Green Box. Direct payments under production-limiting programmes are covered under Blue Box and are exempted if these are based on fixed area and yield or livestock payments made on a fixed number of heads. As per Article 6.2 of the AoA, all the direct or indirect government support provided to encourage agricultural and rural development, investment subsidies and agricultural input subsidies provided to low income or resource poor farmers in developing countries are exempted from the reduction commitments. For China, it can provide support through measures of the types described in Article 6.2 of the AoA, the amount of such support will be included in China's calculation of its aggregate measure of support (AMS) (WTO 2015).

All domestic support measures, except exempt measures, provided in favour of agricultural producers are to be measured as the 'Aggregate Measurement of Support' (AMS), commonly known as Amber Box. The support provided to farmers under this Box includes (1) product-specific support, like price and budgetary support, and (2) non product-specific support like fertiliser and irrigation subsidies. It is to be noted that if the product-specific and non product-specific support is below the de minimis limit then a member is not required to include that support under the Amber Box. De minimis limit is the minimal amount of trade distorting domestic support that is allowed under AoA. For developing countries including India, de minimis limit for product-specific support is 10% of the total value of a basic agricultural production in the relevant year. In case of non product-specific support, this limit is 10% of that member's total agricultural production during the relevant year (WTO 2002). As China became a member of the WTO in 2001, the de minimis limit applicable for China was negotiated at the time of its accession and it is different from that for other developing countries. In case of product-specific limit, the de minimis limit for China is 8.5% of the value of a specific product, whereas for non product-specific support it is 8.5% of the total value of agricultural production in China (Table 1).

Product-specific market support is calculated by using the gap between a fixed External Reference Price (ERP) and the applied administered price multiplied by the quantity of production eligible to receive the applied

Table 1. Basic information about domestic support in India and China

Description	India	China
Membership year	1995	2001
Country status	Developing	Developing
Base AMS	below de minimis	below de minimis
Final bound AMS	0	0
De minimis limit	10%	8.50%
Base period	1986-88	1996-98
Flexibility under Art. 6.2 for input subsidies	Yes	No

Source: Based on Schedule of Commitments and notifications submitted to WTO by India (WTO 1995) and China (WTO 2001)

administered price. Product-specific support includes product-specific market support and budgetary support to a specific agricultural commodity. About the determination of fixed ERP, Annex 3.9 of the AoA states that it shall be based on the years 1986 to 1988 and shall generally be the average FOB (Free On Board) unit value for the basic agricultural product concerned in a net exporting country and the average CIF (Cost, Insurance and Freight) unit value for the basic agricultural product concerned in a net importing country in the base period. Therefore, to calculate product-specific support, the administered price is compared to the ERP based on 1986-88 prices. However, the ERP for China is determined on the basis of a three-year average during 1996-1998.

3 Policy space for China to provide product-specific support to foodgrains

In China, the Sinograin is responsible for procurement of grains and oilseeds, their stock maintenance, inter-provincial shipments and international trade (OECD 2015a). It procures grains when market prices fall below the established support levels. The quantities purchased by Sinograin vary from year to year, depending on the market prices relative to those offered by the government (OECD 2015b). The Chinese government implements Minimum Purchase Price (MPP) policy to ensure stability in market prices, to protect farmers from price fluctuations and to control food supply. OECD (2016) has pointed out that Chinese

government also carries out adhoc interventions to procure several other agricultural commodities at the pre-determined prices to protect farmers and consumers from price volatilities. Besides market price support, the Chinese government also supports farmers through budgetary transfers, like direct payments to compensate farmers for the increase in prices of inputs, especially fertilisers and fuels, and subsidies for purchase of agricultural machinery.

China has notified domestic support to agriculture for the period 1999 to 2010. Product and non product-specific support during 1999 to 2010 was also below the de minimis limit. Green Box support accounted for the major share in total domestic support to agriculture sector with general services and direct payments accounting for more than 85% of the total Green Box support in 2010. In proportionate terms, the share of public stockholding for food security purposes in Green Box declined, but in absolute terms it increased during 1999 to 2010.

China is providing product-specific support to wheat through price support as well as in the form of other product-specific budgetary outlay that includes subsidies for improved crop strains and seeds. Product-

specific market price support for wheat had been negative during 1999-2008 because the administered price of wheat was lower than the ERP. Other product-specific budgetary outlay for wheat, however, has increased steeply from 0.10% of the Value of Production (VoP) in 2003 to 1.85% in 2010 (table 2). Product-specific support for wheat was below the de minimis limit during the notified period 1999 to 2010. On an average, the share of procurement of wheat by government agencies in the total production was one-third during 1999-2010.

For calculation purposes, eligible production of wheat is also assumed at 33% during 2011-2016. The share of other budgetary support for wheat was 1.89% of VoP in 2010, it is assumed that this proportion has remained same during 2011-16. Based on these assumptions, China breached the de minimis limit from 2013 onwards (table 3). It clearly indicates shrinkage in policy space for China to provide support to wheat under the WTO rules.

For rice, the product-specific support during the notified period was below the de minimis limit (table 4). Market price support was negative during this period due to administered price being less than ERP. Other

Table 2. Notified product-specific support to wheat in China

Year	Applied administered price	External reference price	Eligible production	Total market price support	Other product- specific budgetary outlays	Total product- specific support	Value of production (VoP)	Share (market price support/ VoP) %
	Yuan/ton	Yuan/ton	Thousand ton	Million Yuan	Million Yuan	Million Yuan	Million Yuan	
1999	1254	1698	37800	-16783	0	-16783	NA	-
2000	1136	1698	35050	-19698	0	-19698	NA	-
2001	1124	1698	38600	-22156	0	-22156	NA	-
2002	1240	1698	34850	-15961	4	-15957	105280	-15.16
2003	1100	1698	20460	-12235	110	-12125	105600	-11.48
2004		1698	0	0	201	201	141610	0.14
2005		1698	0	0	1058	1058	161860	0.65
2006	1410	1698	40688	-11718	1081	-10637	161360	-6.59
2007	1410	1698	28925	-8330	1101	-7229	182750	-3.96
2008	1490	1698	41740	-8682	2159	-6523	199300	-3.27
2009	1700	1698	39855	80	4371	4451	222460	2.00
2010	1760	1698	23113	1433	4359	5792	235330	2.46

Source: China's WTO notifications on domestic support

Table 3. Calculated product-specific support to wheat

Year	Applied administered price	External reference price	Eligible production (assumed 33% of production)	Total production	Value of production (VoP)	Total market support	Other product-specific budgetary support	Product-specific AMS	PSS as a % of VoP
	Yuan/ton	Yuan/ton	Thousand ton	Thousand ton	million Yuan	million Yuan	million Yuan	million Yuan	%
2011	1930	1698	38742	117400	226582	8988	4192	13180	5.8
2012	2040	1698	39938	121023	246887	13659	4567	18226	7.3
2013	2240	1698	40237	121930	273123	21808	5053	26861	9.8
2014	2360	1698	41649	126208	297851	27571	5510	33082	11.1
2015	2360	1698	42963	130190	307248	28441	5684	34125	11.1
2016	2360	1698	42900	130000	306800	28400	5676	34076	11.1

Source: Author's calculation based on:

1. OECD (2016), "China", in Agricultural Policy Monitoring and Evaluation 2016, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/agr_pol-2016-10-en
2. China's WTO notifications on domestic support
3. Index Mundi. <http://www.indexmundi.com/> accessed on 10th July, 2016

Note: Value of production is calculated by multiplying the total production with the applied administered price.

Table 4. Notified product-specific support to rice in China

Year	Applied administered price	External reference price	Eligible production	Total market price support	Other product-specific budgetary outlays	Total product-specific support	Value of production (VoP)	PSS as a % of VoP
	Yuan/ton	Yuan/ton	Thousand ton	Million Yuan	Million Yuan	Million Yuan	Million Yuan	%
1999	1152	2659	45100	-67900				
2000	1152	2659	44900	-67664				
2001	1124	2659	30600	-46971				
2002	1080	2659	10980	-17337	6	-17331	209270	-8.28
2003	1040	2659	7470	-12094	9	-12085	194390	-6.22
2004	1500	2659	0	0	2741	2741	297470	0.92
2005	1420	2659	11930	-14781	2835	-11946	297970	-4.01
2006	1420	2659	9213	-11415	2927	-8488	277690	-3.06
2007	1500	2659	484	-561	4021	3460	328540	1.05
2008	1520	2659	1854	-2112	7379	5267	362900	1.45
2009	1847	2659	8469	-6877	8317	1440	391560	0.37
2010	1967	2659	0	0	7557	7557	446830	1.69

Source: China's WTO notifications on domestic support

budgetary support to rice accounted for 1.69% of the total value of rice in 2010 and this is used for calculation for the period 2011-16. On an average, the share of procurement of rice in total production was 11% during the notified period. To calculate the product-specific support to rice, the eligible production is also assumed at 11% during 2011-2016. Based on these assumptions, the product-specific support has remained below the de minimis limit during 2011-2016 (table 5). Even after assuming the total production of rice as eligible, the

estimated remained unchanged in 2016. Therefore, it is unlikely that China would have breached the de minimis limit in case of rice.

Based on the assumption that the administered price, production and other budgetary support remain at 2016 level, the results show that China can procure 23.7% and 106 % of total production of wheat and rice, respectively without breaching the de minimis limit (table 6). In case the procurement of wheat is less than

Table 5. Calculated product-specific support to rice in China

Year	Applied administered	External reference price	Eligible production (assumed 11 % of production)	Total production	Total market support	Other product-specific budgetary support	Product-specific AMS	Value of production (VoP)	PSS as a % of VoP
	Yuan/ton	Yuan/ton	Thousand ton	Thousand ton	Thousand ton	Million Yuan	Million Yuan	Million Yuan	%
1	2	3	4 = 11% of (5)	5	6 = (2-3)*4	7	8 = 6+7	9 = 2*5	10 = 8/9*100
2011	2247	2659	15477	140700	-6382	5342	-1039	316106	-0.33
2012	2567	2659	15730	143000	-1452	6203	4750	367033	1.29
2013	2780	2659	15678	142530	1897	6696	8593	396233	2.17
2014	2853	2659	15902	144560	3090	6971	10061	412478	2.44
2015	2853	2659	16035	145770	3116	7029	10145	415930	2.44
2016	2840	2659	16115	146500	2917	7031	9948	416060	2.39
Assuming total production as eligible production									
2016	2840	2659	146500	146500	26517	7031	33548	416060	8.06

Source: Author's calculation based on

1. OECD (2016), "China", in Agricultural Policy Monitoring and Evaluation 2016, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/agr_pol-2016-10-en
2. China's WTO notifications on domestic support
3. Index Mundi. <http://www.indexmundi.com/> accessed on 10th July, 2016

Table 6. Determination of policy space for China by assuming administered price and production of wheat and rice of 2016 level

Product	VoP	De minimis limit	Other budgetary support	Remaining limit	Difference (administered Price-ERP)	Eligible production	Production	Procurement limit
	Yuan in million	Yuan in million	Yuan in million	Yuan in million	Yuan	Million tons	Million tons	%
1	2	3 = 8.5% of (2)	4	5 = (3-5)	6	7 = (5/6)	8	9 = (7/8*100)
Wheat	306800	26078	5676	20402	662	30.8	130.0	23.7
Rice	416060	35365	7031	28334	181	156.5	146.5	106.9

Source: Author's calculation based on Table 4 - Table 5

23.7% of total production, then product-specific support would be below the de minimis level in 2016.

For corn, China government has implemented “the temporary reserve programme” by procuring it from farmers at floor price. Its impact is similar to that of MPP for wheat and rice and therefore, this programme operates as price support programme. In 2016, China initiated reform on the procurement and stockholding of corn and abolished the temporary reserve programme replacing it by a new mechanism of “marketized purchase” (USDA 2016). The reform is market-oriented, under which price is determined by the market forces. Corn producers are likely to sell corn following market signals and subsidy will be provided to corn producers. (Committee on Agriculture meeting 80, ID 80036).

Domestic support notifications show that product-specific support was below the de minimis level during 1999-2010. For the period 2004-2010, China has been supporting corn farmers by providing other product-specific budgetary support for improved crop strains and seeds. China had not provided any market price support during 2004-2010. Other budgetary support was worth 5994 million Yuan that accounted for 1.98

% of the value of production in 2010 (table 7). For the period 1999-2003, China provided market price support for corn by procuring on an average 26.58% of its total production. Due to non-availability of procurement data, it is assumed that China procured same proportion of production during 2011-2015. Other budgetary support is assumed to be 1.98% of VoP during 2011-2016. Our results show that China breached the de minimis limit during 2011-2015 and product-specific support turns out to be 14.40% of VoP (table 8). However, the product-specific support was below the de minimis limit in 2016 as China abolished the reserve price for corn by replacing it new market scheme.

About the policy space to procure corn in 2015, China could procure 14 % of total production of corn without breaching the de minimis limit. In a nutshell, analysis shows that China is at the risk of breaching the de minimis limit in case of wheat and corn.

4 Policy space for India to provide product-specific support to foodgrains

The main objective of India’s agricultural price policy is to ensure food security as well as protect both farmers and consumers from price fluctuations. On the basis

Table 7. Notified product-specific support to corn in China

Year	Applied administered price	External reference price	Eligible production	Total market price support	Other product- specific budgetary outlays	Total product- specific support	Value of production (VoP)	Share (market price support/ VoP)
	Yuan/ton	Yuan/ton	Thousand ton	Million Yuan	Million Yuan	Million Yuan	Million Yuan	%
1999	926	1199	53500	-14606		-14606		
2000	936	1199	37250	-9797		-9797		
2001	918	1199	31100	-8739		-8739		
2002	880	1199	21190	-6760	1	-6759	137440	-4.92
2003	860	1199	13040	-4421	8	-4413	145250	-3.04
2004		1199			167	167	196340	0.09
2005		1199			179	179	199300	0.09
2006		1199			366	366	208650	0.18
2007		1199			373	373	236720	0.16
2008		1199			2200	2200	262040	0.84
2009		1199			5989	5989	258420	2.32
2010		1199			5994	5994	303010	1.98

Source: China’s WTO notifications on domestic support

Table 8. Calculated product-specific support to corn during 2011-2016

Year	Applied administered	External reference price	Eligible production	Total production	Total market support	Other budgetary support (1.98%)	Product-specific AMS	Value of production (VoP)	PSS as a % of VoP
	Yuan/ton	Yuan/ton	Thousand ton	Thousand ton	Thousand ton	Million Yuan	Million Yuan	Million Yuan	%
1	2	3	4 = 26.58% of (5)	5	6 = (2-3)*4	7	8 = 6+7	9 = 2*5	10 = 8/9*100
2011	1980	1199	51241	192780	40019	7558	47577	381704	12.46
2012	2120	1199	54652	205614	50335	8631	58966	435902	13.53
2013	2240	1199	58075	218490	60456	9690	70146	489418	14.33
2014	2250	1199	57319	215646	60242	9607	69849	485204	14.40
2015	2250	1199	59693	224580	62738	10005	72743	505305	14.40
2016		1199		218000	0	11719	11719	591870	1.98

Source:

- China's WTO notifications on domestic support
- Index Mundi. <http://www.indexmundi.com/> accessed on 16th September, 2016
- USDA (2015) China grain and feed annual -2015. GAIN Report no. CHU5014. Accessed on 22nd September, 2016.

Note: Value of production for 2016 is calculated by multiplying total production with producer based on FAOSTAT.

of recommendations of Commission for Agricultural Costs and Prices (CACP), the Government of India (GoI) announces the Minimum Support Price (MSP) for 24 major crops. The Food Corporation of India (FCI) procures foodgrains at administered prices and ensures availability of foodgrains to consumers at subsidised prices through the public distribution system (PDS).

India's schedule of commitments on agricultural products shows that both product-specific and non

product-specific support to the agriculture was either negative or below the de minimis limit during 1986-87 to 1988-89 (WTO 1995). Therefore, the maximum limit for India to provide AMS is the de minimis limit applicable to the developing countries.

India has notified domestic support to agriculture for the period 1995-96 to 2016-17. It has provided domestic support to agriculture mainly through the programmes and measures included in the Green Box and Article 6.2. Based on the notifications submitted

Table 9. Product-specific support to rice in India

Year	Applied administered price	ERP	Eligible production	Total market price support (MPS)	Value of production	MPS as a % VoP
	US\$/ton	US\$/ton	Million ton	US\$ million	US\$ million	%
2011-12	338.06	262.51	35.04	2647.39	35599.96	7.44
2012-13	344.67	262.51	34.04	2796.70	36444.49	7.67
2013-14	324.79	262.51	31.85	1983.73	36419.67	5.45
2014-15	333.66	262.51	32.04	2279.66	37043.02	6.15
2015-16	323.06	262.51	33.54	2030.96	34701.42	5.85
2016-17	328.75	262.51	38.106	2524.19	37855.14	6.67

Source: (1) India's domestic support notifications to Committee on Agriculture, WTO.

(2) Value of production based on National Account Statistics.

Table 10. Product-specific support to wheat in India

Year	Applied administered price US\$/ton	ERP US\$/ton	Eligible production Million ton	Total market price support (MPS) US\$ million	Value of production US\$ million	MPS as a % VoP %
2011-12	268.16	264	28.34	117.76	24638.56	0.48
2012-13	248.16	264	38.15	-604.23	24211.40	-2.50
2013-14	231.40	264	25.09	-817.81	23151.07	-3.53
2014-15	237.16	264	28.023	-752.12	21098.79	-3.56
2015-16	232.97	264	28.088	-871.66	22292.40	-3.91
2016-17	242.28	264	22.927	-498.04	24645.76	-2.02

Source: (1) India's domestic support notifications to Committee on Agriculture, WTO.

(2) Value of production based on National Account Statistics.

by India to the WTO, it is found that product-specific support to rice was 6.67% during 2016-17 and it remained below the de minimis level (table 9). However, the gap between the administered price and ERP has been increasing since 1995-96 and it led to shrinking policy space for India to procure rice at the minimum support price. It feared that in near future, product-specific support to rice will cross 10% limit in near future depending on the trend in the minimum support price, exchange rate, procurement and value of production. In case of wheat, the product-specific support has remained below the de minimis limit during the notified period 1995-96 to 2016-17 (table 10). It was due to the fact that the administered price of wheat was less than the ERP throughout, except in 2011-12.

Overall, the product-specific support for wheat and rice has remained below the de minimis limit during 2011-12 to 2016-17. However, given the increasing trend in the MSP and procurement level, India will face lack of policy space in implementing price support policy for rice under existing rules of the AoA in coming years. In case of wheat, our results show that there is enough policy space to implement price and procurement policy for food security purposes.

5. Other issues related to price support to foodgrains

5.1 Verification of USTR's claim about domestic support in China

The USTR has claimed that market support to wheat, rice and corn in China was nearly US\$100 billion for

year 2015. Based on the analysis of the product-specific support for wheat, rice and corn, this study finds that the total product-specific support to these commodities was 106.87 billion Yuan or US\$17.16 billion in 2015 (table 11). This is much less than the USTR's claim regarding the product-specific support to China for these products. In case the procurement of wheat and corn was less than 23.7% and 14% of their respective levels of total production in 2015, the total product-specific support would be almost nil as the fact that product-specific support remained below the de minimis limit. It is important to note that China spent 22 billion Yuan on seed subsidy in 2011 (USDA 2015) which comes under "other budgetary product-specific support" in notifications submitted by China. The Chinese government provided the seed subsidy to rice, wheat, cotton, corn, soybean, rapeseed, potato, highland barley and peanut as given in notification for the year 2010. Other budgetary product-specific for wheat, rice and corn in this study amounted to 17 billion Yuan in 2011. As seed subsidy for other crops is not considered, it seems other budgetary support has been taken on higher side for the calculation purposes. Chinese government also provides input subsidies to agriculture which is notified in the form of non product-specific support.

Overall, the USTR's claim about the market price support to wheat, rice and corn seems to be exaggerated. It may happen if it is assumed total production of foodgrains as eligible production. Other possibility may be that input subsidies on fertilisers/fuel or direct payment may be considered as product-

Table 11. Total product-specific support AMS to selected products

Year	Wheat	Rice	Corn	Total Product-specific AMS	
	Million Yuan	Million Yuan	Million Yuan	Million Yuan	Million US\$
2011	de minimis	de minimis	47577	47577	7363
2012	de minimis		58966	58966	9341
2013	26861		70146	97007	15657
2014	33082		69849	102931	16755
2015	34125		72743	106868	17161
2016	34076		de minimis	34076	5109

Source: based on Table 2-8

specific rather than non product-specific support in the USTR analysis. Otherwise, it seems that product-specific support in China is very much lower in comparison to the USTR's claim.

5.2 Consideration of inflation and its impact on domestic support

It is to be noted that the results for China would have been different if the inflation was to be considered in estimation of product-specific support. The methodology to compute product-specific support is criticised because the administered price of an agricultural commodity is compared with the fixed ERP which is based on 1986-88 and 1996-98 prices for India and China, respectively. Though, Article 18.4 of the AoA gives some consideration to inflation in calculation of domestic support, this does not apply as a matter of a member's unilateral right (WTO 2002). This flexibility depends on the discretion of other members of the WTO during the review process. The other related issue is the ambiguity on definition of "excessive inflation" which is not defined under the AoA. For the calculation purpose, full inflation allowance is considered to see the trend in product-specific support in India and China. Our results show that product-specific support to wheat and rice in India and China remained below the de minimis limit (table 12). However, the product-specific support still remain higher than the de minimis limit for corn in China during 2012- 2015 as the deflated administered price was higher than the ERP. China abolished floor price for corn, therefore other budgetary support is considered for product-specific support in 2016. In case of India, product-specific support to foodgrains was negative after considering inflation for calculation purpose.

Table 12. Deflated product-specific support for foodgrains in India and China (as a % of total value of production of relevant crop)

Year	China			India	
	Wheat	Rice	Corn	Wheat	Rice
2011	-2.62	-4.1	7.8	-17.95	-8.25
2012	-1.54	-2.4	8.6	-25.55	-5.91
2013	0.83	-1.6	9.2	-19.48	-7.35
2014	1.93	-1.5	8.9	-27.86	-9.58
2015	1.46	-1.7	8.6	-24.37	-9.75
2016	0.66	-2.1	1.98	-16.03	-8.41

Source: 1. same as Table 2-11
2. World development indicators, World Bank
3. Reserve Bank of India

5.3 Level playing field in agriculture

The US has blamed the emerging developing countries for not providing level playing field to American farmers due to domestic support policies for agriculture in these countries. However, it is the developing countries that are adversely affected by the huge subsidy support to farmers in the US for products like cereals, milk and cotton etc (Minot & Daniels 2001; FAO 2004; Banga 2014; Oxfam 2002; ICAC 2002; Wise & Patnaik, 2015; Curtis 2011). The US has the policy space to provide support above the de minimis level because the applicable final bound AMS level is US\$19 billion. The US got this flexibility because it was distorting international trade in agriculture through trade distorting support during the Uruguay round. In case of India and China, the final bound AMS is zero and therefore, both countries cannot give Amber Box support above the de minimis limit. In other words, those countries that were not distorting trade during the base period were penalised, whereas other countries

Table 13. Domestic support per person engaged in agriculture sector

Year	Country	Domestic support per farmer (US\$)
2015	US	53684
2016-17	India	217
2010	China	488

Source: (1) Domestic support notifications submitted by India, China and the US; (2) International Labour Organisation

Note: Domestic support includes Amber Box, Green Box, Blue box, support below de minimis limit and expenditure under Article 6.2

were rewarded with high Amber Box cap due to the fact that these countries were distorting agricultural trade during the base period. Even comparison of domestic support per economically active person in agriculture shows that domestic support to agriculture in US was US\$ 53684 in 2015, much higher than the support available to farmers in India and China (table 13).

The subsidy database of the Environmental Working Group (EWG) shows that the US provides huge subsidies to agriculture to protect income of farmers from volatility in agricultural production and prices. Agricultural subsidies in US are highly skewed toward corn, soybeans, wheat, cotton and rice. Per recipient subsidy for these crops in US is very high (table 14). It seems the US is making playing field uneven for the developing countries in agricultural trade and then criticising agricultural policy of the developing countries to get market access for its highly subsidised foodgrains. Even in terms of expenditure on food security, spending by US is much higher than India and China. China and India with a population of 1.39 and 1.31 billion, respectively spent US\$11.38 (2010) and US\$18.77 billion (2016-17) on food security. On the other hand, US with a population of 324 million spent US\$102 billion in 2016.

Therefore, protecting the interests of 320 million undernourished people is and should be the priority for both China and India. Given the socio-economic situation prevailing in these two countries, price support backed procurement of foodgrains would remain an integral part of ensuring food security for the millions of undernourished people and protecting the interest of resource poor farmers in India and China. Both

Table 14. Crop specific subsidy per recipient

	Recipient	Payment (million US\$)	Subsidy per recipient (US\$)
2010			
Wheat	564316	2012	3565
Rice	30289	454	14995
Corn	666798	3772	5657
2017			
Wheat	429161	2643	6159
Rice	24388	813	33326
Corn	481223	5186	10777

Source: Environmental Working Group (<https://farm.ewg.org/> accessed on 16th September, 2018).

countries should not succumb to US pressure backed by the unjust rules of the AoA to get market access in their countries for highly subsidised foodgrains produced in US and should protect the policy space to implement food security and agriculture policy for the millions of poor farmers and undernourished people.

6 Conclusion

The US's dispute with China on price support to wheat, rice and corn has also implications for many other developing countries. Price support to foodgrains is an integral part of food security and agricultural policy in many developing countries, like China, India, Turkey, Indonesia, Pakistan and Kenya. Procurement of foodgrains at administered price is a contentious issue in Doha Development Round especially in the Ministerial Conferences held in Bali (2013), Nairobi (2015) and Buenos Aires (2017).

To assess US's claim about domestic support in China as well to examine the policy space available for India and China, product-specific support to foodgrains has been calculated for these two Asian countries. In contrast to USTR's claim that Chinese product-specific support was more than US\$100 billion for foodgrains, result shows that support for wheat, rice and corn was only US\$17 billion in 2015. Thus US's claim appears highly exaggerated.

For India, product-specific support to wheat and rice remained under the permissible limit. Given the trend in the MSP, procurement, production and exchange rate, policy space to implement price support for rice will shrink in coming years. In case inflation is

considered, product-specific support to foodgrains remains much below the de minimis limit in China and India during 2011-12 to 2015-16. Analysis also shows that the US is giving huge domestic support to agriculture sector. It is also revealed that agricultural subsidies are highly skewed in favour of rice, wheat and corn in US and the level of support is unimaginable. Based on these high levels of agricultural subsidies, the US is enjoying artificial comparative advantage in international trade of agricultural commodities.

Anticipating the problems in implementing the policy of public stockholding for food security purposes, developing countries are demanding amendments in the AoA to provide policy space to implement food security policy which is compatible with the socio-economic situation prevailing in their countries. Due to the various proposals by developing countries and tough stance taken by certain developing countries at the Bali Ministerial Conference in 2013, the WTO members agreed to a "Peace Clause" as an interim solution. As per the "Peace Clause" members shall refrain from challenging through the WTO Dispute Settlement Mechanism, compliance of a developing member with its obligations related to domestic support under the AoA provisions (WTO 2013). In other words, if a developing country member breaches its permissible limit for Amber Box on account of procurement of foodgrains at administered price for food security purposes, other member countries would refrain from challenging it at the WTO.

The Peace Clause decision requires a developing country to comply with notification and transparency requirements. In order to take advantage of the decision, the concerned country would have to confess that it is in breach of, or is likely to violate, its obligations under the AoA. A developing country has to ensure that its stockholding programme does not distort trade or adversely affect the food security of other countries. China can invoke the "Peace Clause" in case product-specific support to wheat is higher than the de minimis limit. For this China would have to notify its domestic support to the agriculture sector for recent years and comply with all other conditions mentioned in Ministerial Decision on the issue of public stockholding for food security purposes. The dispute between US and China on product-specific support for foodgrain would set an precedence on dealing with a situation when a member country breach its commitment level

on account of procurement of foodgrains for food security purposes. Many developing countries that are implementing price support backed procurement policy have a keen interest in this case due to its implications for food security policy. In the meantime, developing countries should sustain their demand for an early permanent solution on the issue of public stockholding for food security purposes that allow enough policy space to implement price support backed procurement of foodgrains under the WTO rules and make sure that issue of food security for millions of undernourished and poor prevails over the naked commercial interests of few developed countries who want market access in developing countries market for dumping their highly subsidised agricultural products.

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