

AGRI-REFORMS POLITICS: CATERING TO ONLY CEREAL PRODUCING STATES & SHUNNING FRUITS AND VEGETABLES IS LAZY FARMING AND PAROCHIAL THINKING

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The Government has passed 3-bills in agriculture sector, which aim to change the way agricultural produce is marketed, sold and stored across the country which were initially issued in the form of ordinances in June. The three bills aim to increase the availability of buyers for farmers' produce, by allowing them to trade freely without any license or stock limit, so that an increase in competition among them results in better prices for farmers.

We heartily welcome the measures adopted by Government in order to enhance the production and income of farmers. India is no more just a cereal granary and states are producing diversified crops and it is time that we go for white revolution. In fact, the contribution of cereals in the value added of crops has significantly come down over the years from a high of 49% in 1968-69 to 28% in 2018-19, in current prices and that of fruits and vegetables has grown rapidly to 30% of the share in crop output, vis-à-vis 14% in 1968-69. The state-wise data published by NAS from 2011 to 2017 shows that there are only 8 states which had a higher percentage of output coming from cereals rather than fruits and vegetables in 2016-17 and among these, Punjab and Haryana derive more than 50% of their crop output from cereal.

Unfortunately, India follows a legacy and lopsided system of procurement of primarily cereals that was implemented in 1960s to benefit from the cereal granary states in North India, primarily Punjab and Haryana and a large part of edifice of food grain procurement infrastructure is built around such states. For example, while Uttar Pradesh and West Bengal are the number 1 and 2 in rice production, food grain procurement is only 18% by FCI from such states, but in Punjab and Haryana (number 10th) which are lower in rice production, the average procurement is still a staggering 90% by FCI. In fact, Uttar Pradesh is largest producer of wheat also, but again a laggard in wheat procurement. Such lopsided procurement has resulted in (a) **significantly skewed income of agricultural households with average income in Punjab at Rs 2.8 lakh being 3-3.5 times higher than states like Uttar Pradesh and West Bengal** (b) **disproportionately higher number of farmers on e-NAM from states like Uttar Pradesh and minimal from Punjab thus distorting market pricing** (c) **uneven procurement across select states resulting in significant burden on exchequer with FCI total outstanding loans from NSSF estimated at Rs 3.22 lakh crore by end-March 2021 and states like Uttar Pradesh and West Bengal, which are top producers of Rice and wheat being able to use 61% of the godown capacity** and (4) **production of food grains benefitting select states. It is an irony that the value of cereals per hectare is 12 times less than fruits and vegetables, but we keep on eulogizing cereal production. Fruits and vegetables have the highest value of output per hectare followed by condiments and spices.**

India should quickly move up the Agri value chain to ensure farmer income gets broad-based. The total number of farmers (allowing for overlap) who are currently benefitting from the new initiatives like e-NAM, organic farming is incrementally at 3.4 crore. If we add to that 1.5 crore benefitting from procurement, the total number of farmers benefitting is around 4.9 crore, out of an estimated universe of 14.6 crore farmers.

Estimates suggest that India's food retail market, is expected to touch Rs 62 lakh crore by 2023, driven by shift in consumption away from low value staples to high value proteins (fish, meat, eggs, and pulses), dairy products, fruits, and vegetables, as incomes rise and Indian agri must take advantage of such. As per WTO data, India exported \$37 billion worth of agriculture products in 2019 and had 2.1% share in world agri exports. Additionally, agricultural exports constitute around 10% of the country's exports, but most of these exports are low value, raw or semi processed, and marketed in bulk. Share of India's high value and value added agri produce in its agri export basket is less than 15% compared to 25% in US and 49% in China. India is also the largest milk producer in the world with a study undertaken by a private agency has estimating that out of the total surplus 20% is processed in the cooperative sector, 30% by branded private dairy companies and the rest 50% gets processed in the unorganised sector (milk for sweet shops, loose milk etc). Thus, it would not be incorrect to say that India now badly needs another white revolution!

However, while the bills aim to liberalise trade and increase the number of buyers, de-regulation alone may not be sufficient to attract more buyers. The freedom of choice that these bills give is a step in the right direction. But this has to be supported with building infrastructure and educating the farmers about the potential income they can generate by moving to other agri-produce, including dairy farming. The inefficiencies in agri procurement agencies also need to be taken care of.

FARM BILLS, 2020

- ◆ Government has passed 3-bills in agriculture sector, which aim to change the way agricultural produce is marketed, sold and stored across the country which were initially issued in the form of ordinances in June. The Ordinances are:
- ◆ **(1)** The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Ordinance, 2020 which allows intra-state and inter-state trade of farmers' produce beyond the physical premises of APMC markets. State governments are prohibited from levying any market fee, cess or levy outside APMC areas.

Status of Farmers in India

A. Total Farmers	14.6 crore
B. Farmers on e-NAM	1.7 crore
C. Farmers benefitting from procurement	1.5 crore
D. Farmers benefitting from Agri-technology + Organic Farming	1.7 crore
E. Total Farmers benefitting (B+C+D)	4.9 crore
F. Farmers need to be benefitted (A-E)	9.7 crore

- ◆ (2) The Farmers Agreement Ordinance creates a framework for contract farming through an agreement between a farmer and a buyer prior to the production or rearing of any farm produce. It provides for a three-level dispute settlement mechanism: the Conciliation board, Sub-Divisional Magistrate and Appellate Authority;
- ◆ (3) The Essential Commodities (Amendment) Ordinance, 2020 allows the Central Government to regulate the supply of certain food items only under extraordinary circumstances (such as war and famine). Stock limits may be imposed on agricultural produce only if there is a steep price rise.
- ◆ The three bills aim to increase the availability of buyers for farmers' produce, by allowing them to trade freely without any license or stock limit, so that an increase in competition among them results in better prices for farmers. While the bills aim to liberalise trade and increase the number of buyers, de-regulation alone may not be sufficient to attract more buyers.
- ◆ We welcome the measures adopted by Government in order to enhance the production and income of farmers. Further, the measures are *sine qua non* as India is no more just a cereal granary and states are producing diversified crops.

NOT 'MSP' BUT 'MARKETS' ARE NECESSARY

- ◆ Despite the Government's efforts to bring the bills in the benefits of the farmers, opposition led farmers have been agitating across the country and are asking MSP to be made legal, implying that all private players need to buy at MSP. Every year, Government declares MSP for 23-crops at the beginning of each sowing season. However, Government doesn't need to buy all the 23 crops. Even the Government doesn't have means for such purchase. It is described by some parties that the passing of bills will destroy the MSP structure. But this is a blatant falsification.
- ◆ According to NSS 70th Round survey on Key Indicators of Situation of Agricultural Households in India indicates that on an average only 19% of households are aware of MSP and 15% are aware of procurement agency. Only 7% households sold crops to procurement agency. Only 10% of total crops is sold at MSP. This indicates that almost 93% of households sold their goods in open market and facing the market imperfections. None of the laws directly impinges upon the MSP regime.
- ◆ In the case of procurement, data indicates that only 30-35% of total wheat produce has been procured over the years (with largest procurement happening through Punjab and Haryana). In the case of Rice, the procurement share is not better but in the range of 30-40% with significant procurement is from Telangana, Punjab, Haryana and Kerala. However, most government procurement centres in Punjab, Haryana and a few other States are located within the notified APMC mandis. Farmers fear that encouraging tax-free private trade outside the APMC mandis will make these notified markets unviable, which could lead to a reduction in Government procurement itself. Farmers are also demanding that MSPs be made universal, within mandis and outside, so that all buyers - government or private - will have to use these rates as a floor price below which sales cannot be made. That will spell disaster in the markets, and private players will hesitate to enter into the market.
- ◆ We believe the farmers' agitation is not due to MSP but vested political interests as some states are concerned about the loss of revenue from mandi taxes and fees, which currently range from 8.5% (6% mandi tax and 2.5% fee for handling central procurement) in Punjab to less than 1% in some States. With this Punjab earns an annual revenue of about ₹3,500 crore from these charges.

Number per 1000 of agricultural households having awareness about MSP for selected crops during January, 2013- June, 2013

Crops	number per 1000 of households reporting sale of crops			% of sale at MSP to total sale (of the households sold to procurement agency)
	aware of MSP	aware of procurement agency	sold to procurement agency	
Paddy	315	187	100	14
Jowar	213	207	192	36
Maize	118	61	29	4
Wheat	392	345	162	35
Barley	110	105	16	1
Gram	126	97	39	5
Arhar(Tur)	142	131	47	1
Moong	91	37	19	2
Masur	181	155	20	0
Sugarcane	454	407	366	33
Potato	121	90	6	2
Onion	153	98	6	1
Groundnut	89	82	13	1
Rapeseed/Mustard	155	128	29	14
Coconut	215	110	17	0
Cotton	226	177	84	3
Average	194	151	72	10

Source: SBI Research; Key Indicators of Situation of Agricultural Households in India NSS 70th Round

Rice: Procurement as % of Production

	FY16	FY17	FY18	FY19	FY20	Rank in Production	Rank in Procurement
Andhra Pradesh	58%	50%	49%	58%	62%	4	3
Telangana	52%	70%	58%	78%	97%	6	2
Bihar	18%	15%	10%	15%	20%	8	11
Chhatisgarh	59%	50%	66%	61%	76%	7	5
Haryana	69%	80%	88%	87%	89%	10	6
Kerala	70%	70%	63%	80%	88%	14	13
Madhya Pradesh	24%	31%	27%	31%	36%	11	9
Maharashtra	9%	10%	7%	18%	37%	12	12
Odisha	57%	44%	50%	58%	59%	5	4
Punjab	79%	95%	88%	88%	92%	3	1
Tamil Nadu	16%	6%	15%	21%	33%	9	10
Uttar Pradesh	23%	17%	22%	21%	24%	2	7
Uttarakhand	94%	112%	6%	75%	104%	13	14
West Bengal	10%	13%	11%	12%	11%	1	8
All India	33%	35%	34%	38%	44%		

Source: SBI Research

Wheat: Procurement as % of Production

	FY17	FY18	FY19	FY20	Rank in Production	Rank in Procurement
Punjab	65%	66%	69%	71%	2	1
Haryana	59%	69%	70%	78%	4	2
Uttar Pradesh	3%	12%	16%	12%	1	4
Madhya Pradesh	22%	42%	44%	37%	3	3
Rajasthan	8%	13%	15%	13%	5	5
All India	23%	31%	35%	32%		

Source: SBI Research

- ◆ Mandi tax varies across major commodities. For pulses, mandi tax in UP is 2.5%, in MP it is 2.2% while in Gujarat it is 0.6%. In Maharashtra and AP, it is 1%. There should be a uniform tax across all mandis to have a level playing field.
- ◆ As implementation of the scheme is important, we believe Government should discuss with states and can promise them some compensation, for say 3-5 years, subject to reforms in APMC markets.

- National Agriculture Market (eNAM) is a pan-India electronic trading portal and networks the existing APMC mandis to create a unified national market for agricultural commodities. e-NAM is not a parallel marketing structure but rather a device to create a national network of physical mandis which can be accessed online. It seeks to leverage the physical infrastructure of the mandis through an online trading portal, enabling buyers situated even outside the Mandi/ State to participate in trading at the local level. Currently 1.67 crore farmers are part of e-NAM in 1000 mandis of which 65% are from 4 states only. This is an interesting fact that apart from Haryana, none of the states where farmers' annual income is more than the national average sell their crops in e-NAM mandis. Even in the case of Punjab where annual income of Agricultural Households is almost Rs 2.8 lakh, only 1% farmers are associated with e-NAM.
- With the Government linking mandis under e-NAM, state taxes should become redundant.

GRAVE INEFFICIENCIES OF FCI

- Food Corporation of India (FCI) is an organization of grave inefficiencies. It is neither able to manage stock of foodgrains nor its finances. As of 1 July'20, the foodgrains stock in the Central Pool was 822 lakh tonne against the buffer norm of 411 lakh tonne, almost double than the required. This is an example of economic inefficiency. The Shanta Kumar high-level committee report had recommended liquidation of Government's grain stocks via open market sales scheme (OMSS) or in export markets, whenever stocks go beyond the buffer norm. But due to the lack of a transparent liquidation policy FCI is faced with surplus stocks than buffer norms. Further, the godown capacity utilisation in some of the states is unsatisfactory. This is unfortunate that the states like Uttar Pradesh and West Bengal, which are top producers of Rice and wheat are using only 61% of the godown's capacity. This may be due to the fact that these states are unable to procure wheat and rice in appropriate quantities. The trend of Mandi prices of wheat and rice indicate that in these states the prices are so much less than the annual average and even less than the MSP.
- Apart from this, the borrowing of FCI from NSSF (National Small Saving Scheme) has been increasing significantly over the past years. As per the budget FY21, FCI is estimated to borrow a whopping Rs 1.36 lakh crore to finance its food subsidy bill, up from Rs 1.1 lakh crore in FY20. Taking into account Rs 2.54 lakh crore debt at the beginning of FY21 and repayment amount of Rs 68,400 crore during the year, FCI's total outstanding loans from NSSF is estimated at Rs 3.22 lakh crore by end-March 2021.

CHANGING STRUCTURE OF AGRICULTURAL PRODUCE IN INDIA

- India is no more just a cereal granary. The contribution of cereals in the value added of crops grew rapidly after the green revolution. However, their value has come down over the years and from a high of 49% in 1968-69 the share now remains at 28% in 2018-19, in current prices. Meanwhile that of fruits and vegetables has grown rapidly and now they command 30% of the share in crop output, vis-à-vis 14% in 1968-69.

State-wise Status of e-NAM						
Name of State/UT	Mandis registered on e-NAM	Registered Traders on e-NAM	FPOs on e-NAM	Farmers on e-NAM		Average Annual Income of Agricultural Households (Rs)
				Number	% Share	
Andhra Pradesh	33	3,182	152	14,36,398	9%	83,040
Chhattisgarh	14	3,053	22	1,35,084	1%	1,02,960
Gujarat	122	9,251	82	8,65,829	5%	1,42,788
Haryana	81	11,199	216	27,21,021	16%	2,21,952
Himachal Pradesh	19	1,950	50	1,21,189	1%	1,41,936
Jharkhand	19	1,945	69	2,03,090	1%	83,892
Madhya Pradesh	80	21,167	74	30,15,971	18%	95,028
Maharashtra	118	19,223	251	11,74,080	7%	1,23,216
Odisha	41	1,976	133	81,525	0%	92,772
Punjab	37	1,974	3	2,14,729	1%	2,77,596
Rajasthan	144	18,826	138	13,23,052	8%	1,08,156
Tamil Nadu	63	2,912	98	20,15,968	1%	1,17,300
Telangana	57	5,648	54	18,17,000	11%	1,07,412
Uttar Pradesh	125	34,394	209	32,99,145	20%	80,016
Uttarakhand	16	4,650	38	53,579	0%	1,30,260
West Bengal	18	2,725	131	18,790	0%	93,072
Total	1,000	1,44,987	1,720	1,67,18,808	100%	1,07,172

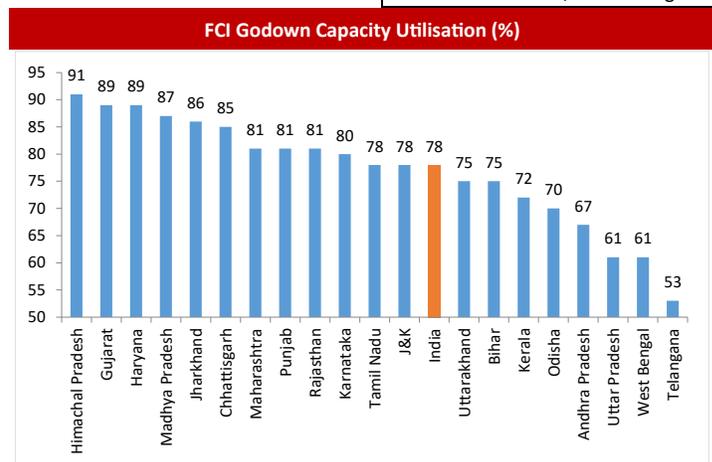
Source: SBI Research; NAFIS

Food grains Stock in Central Pool (lakh MT)			
As of	Buffer Norms	Actual Stock	
		FY20	FY21
1st April	210	464	569
1st July	411	743	822
1st October	308	642	-
1st January	214	565	-

Source: SBI Research

Additional Borrowing of FCI from NSSF	
Year	Amount (Rs)
FY17	0.70
FY18	0.25
FY19	0.97
FY20	1.10
FY21	1.36

Source: SBI Research, Union Budget

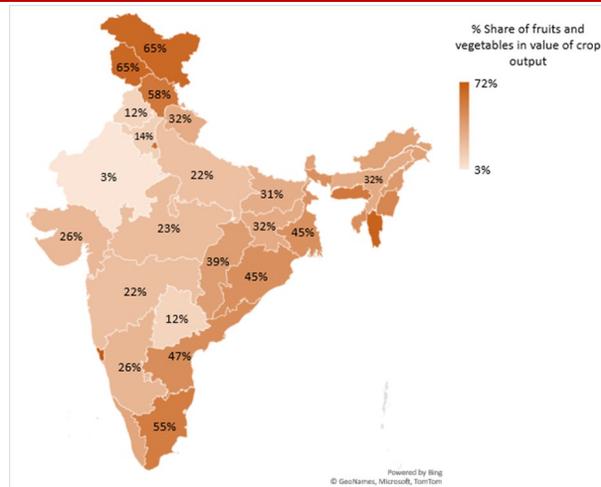
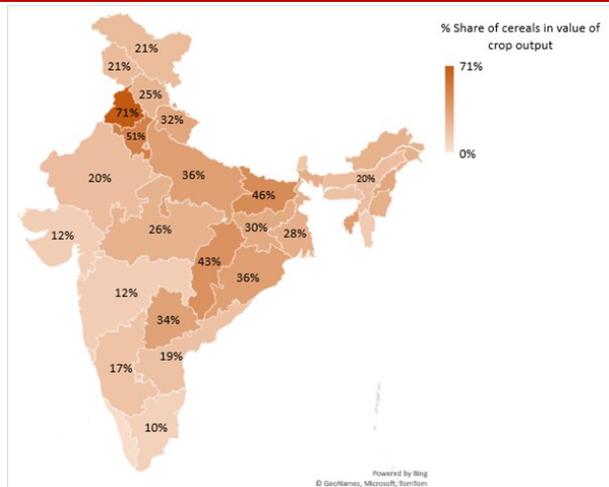


Source: SBI Research

State-wise Average Mandi Price of Rice and Wheat				
State	Rice (Rs/Quintal)		Wheat (Rs/Quintal)	
	FY20	FY21*	FY20	FY21*
Andhra Pradesh	4132	NA	-	-
Assam	3320	NA	2046	NA
Chattisgarh	-	-	1777	1666
Gujarat	3426	4262	2106	1785
Haryana	-	-	1899	1925
Jharkhand	3862	2509	1955	2405
Karnataka	3732	3373	2714	2747
Kerala	3460	3505	2051	2081
Madhya Pradesh	1550	NA	1950	1837
Maharashtra	3747	4459	2580	2346
Punjab	-	-	2038	1894
Odisha	2749	2797	2341	NA
Rajasthan	-	-	1932	1777
Tamil Nadu	2076	NA	-	-
Telangana	-	-	2098	NA
Uttar Pradesh	2507	2648	1907	1887
Uttarakhand	2572	2693	1936	1965
West Bengal	2795	2879	1991	2014
All India Average	3348	3370	2088	2005
MSP	2641^	-	1925	1975

Source: SBI Research; * Till Sep'20; ^MSP under OMSS

Changing Crop Pattern (2016-17)



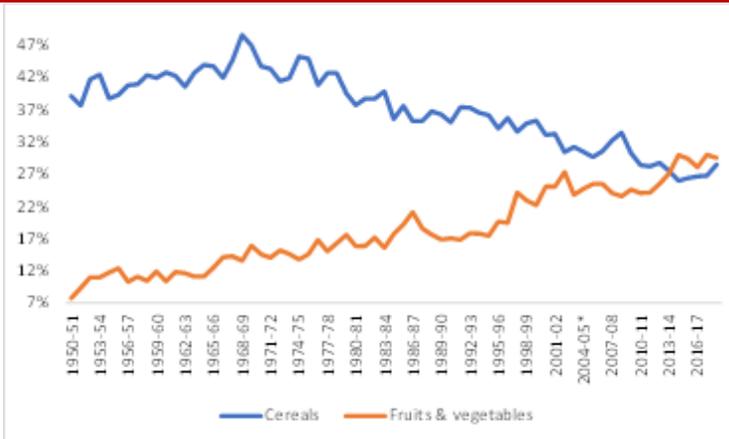
Source: SBI Research

- ◆ In constant terms, too, it is clearly visible that the value of fruit and vegetable output has outgrown cereal output. For the other crops the % share has remained more or less static, at an all India level. India has moved far beyond cereals now and despite lack of MSP support, which is given for food grains, sugars, oilseeds, jute and cotton, it has increased its production of other agricultural produce like fruits and vegetables. The state-wise data published by NAS from 2011 to 2017 shows that there are only 8 states and two union territories which had a higher percentage of output coming from cereals rather than fruits and vegetables in 2016-17. These include Punjab and Haryana and states in northern belt mostly. However, only Punjab and Haryana had more than 50% of their crop output from cereals, with only Punjab showing an increase from 67% in 2011-12 to 71% in 2016-17. However, Haryana brought down its share from 53% in 2011-12 to 51% in 2016-17.
- ◆ The 2014-15 agricultural land use statistics for various crops shows that out of the total gross cropped area of 198.36 million hectares, the highest share was for food grains and among that too, it was highest for rice, wheat and pulses. Oilseeds also commanded a high share in gross cropped area. On the other hand, sugarcane, condiments and spices and fruits and vegetables occupied lesser crop area.
- ◆ When we juxtapose this with the data available for the output of various products in 2014-15, we find that the food grains have lower estimated output per hectare. Fruits and vegetables have the highest value of output per hectare followed by condiments and spices.

A MOVE FROM CEREAL TO HIGH VALUE AGRICULTURE PRODUCTS

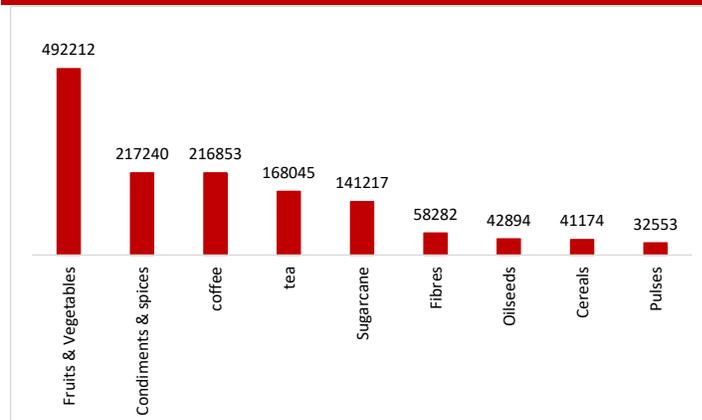
- ◆ As per WTO data, India exported \$37 billion worth of agriculture products in 2019 and had 2.1% share in world agri exports. Agricultural exports constitute around 10% of the country's exports, but most of its exports are low value, raw or semi processed, and marketed in bulk. Share of India's high value and value added agri produce in its agri export basket is less than 15% compared to 25% in US and 49% in China.

% Share of items in Value of crop output



Source: SBI Research

Value of Output per hectare (2014-15)(Rs)



Source: SBI Research

- ◆ The New Agriculture Export policy aims at boosting exports of high margin, value added and branded processed products and aims to push India’s agricultural exports to ~\$60+ billion by 2022 and reach US\$ 100 Billion in the next few years thereafter, with a stable trade policy regime. It also strives to double India’s share in world agri exports by integrating with global value chain at the earliest.
- ◆ As many as 14 States have finalised the State-specific action plan for agriculture export policy (AEP), while the remaining States are at different stages of finalisation of their respective plans, the Commerce Ministry has said.
- ◆ Key challenges such as a lack of advanced processing technologies, market disconnects and a lacking supply chain infrastructure have led to sub-optimal agri-exports from India. The freedom of choice that these bills give is a step in the right direction. Bu this has to be supported with building infrastructure and educating the farmers about the potential income they can generate by moving to other agri-produce.

NEED FOR WHITE/PROTEIN REVOLUTION

- ◆ White revolution in India started with the set up of the NDDB and Amul that led India to become the world’s largest producer of milk. Milk consumption soared domestically, but production is mostly manual and foreign breeds bring health and environmental problems. Estimates suggest that 48% of the milk produced is self-consumed by dairy farmers and 52% is marketable. A study undertaken by a private agency has estimated that out of the total surplus 20% is processed in the cooperative sector, 30% by branded private dairy companies and the rest 50% gets processed in the unorganised sector (milk for sweet shops, loose milk etc). The States of Uttar Pradesh, Andhra Pradesh, Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Haryana and Punjab together account for 65% of the milk production in the country. The processing capacity if measured in terms of milk chilling infrastructure cooperatives) is highly skewed with Gujarat alone accounting for 46%.
- ◆ Thus, the future growth of dairy would have to come from newer areas and with modernised technology that is suited for small dairy farmers: **(i)** Changes in the animal’s gut DNA will also help reduce GHG emissions of individual cattle, **(ii)** The spread of artificial insemination solutions will substantially reduce India’s male cattle population that is becoming an economic burden on producers, **(iii)** Rising computational power of AI allowing for rapid processing and screening of genetic information, and **(iv)** Vertical integration of large feed companies down to production, and disintermediation of value chain. These innovations will enable the Indian milk and meat sector to industrialize without compromising on environmental sustainability, animal health, and consumer safety.

Top 10 exporters of agricultural products, 2019									
Exporters	Value	Share in world exports/imports					Annual percentage change		
	(Billion \$)	(%)					(%)		
	2019	2000	2005	2010	2019	2010-19	2017	2018	2019
EU	639	38.9	41.9	37.4	35.9	3	8	6	-2
Extra-EU Exports	224	12.6	13.0	11.9	12.6	4	8	6	2
USA	165	13.0	9.8	10.5	9.3	2	3	1	-4
Brazil	89	2.8	4.1	5.1	5.0	3	14	6	-5
China	82	3.0	3.4	3.8	4.6	5	4	6	-1
Canada	65	6.3	4.9	3.8	3.7	2	6	4	-6
Thailand	43	2.2	2.1	2.6	2.4	2	18	2	-3
Indonesia	42	1.4	1.7	2.7	2.4	2	26	-7	-8
Argentina	40	2.2	2.3	2.6	2.2	1	-4	-3	15
India	37	1.1	1.2	1.7	2.1	6	17	0	-4
Mexico	36	1.7	1.5	1.4	2.0	8	12	6	3
Above 10	1239	72.5	72.8	71.6	69.6	-	-	-	-

Source: SBI Research

Item-wise % share in value of output from Agriculture, forestry and fishing						
Item	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Crop	62%	62%	62%	59%	58%	57%
Cereals	18%	18%	17%	15%	15%	15%
Fruits & vegetables	15%	16%	17%	18%	17%	16%
Livestock	26%	26%	26%	28%	29%	30%
Milk group	17%	17%	17%	18%	20%	20%
Forestry and logging	8%	8%	8%	8%	8%	7%
Fishing and aquaculture	4%	4%	5%	5%	5%	6%
Agriculture, forestry and fishing	100%	100%	100%	100%	100%	100%

Source: SBI Research

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