

Expectations from 2019-20 Union Budget for Indian farm

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The paper discuss the global agricultural policy of some countries, comparison and the expectation that arises from the Union Budget of 2019-20, India. Budget has always been a key towards exploring the importance that the present government provides to a particular sector. Government intervention is expected to increase the social welfare by financing the agricultural research and development, and redistributing the income by shifting the agricultural incentive. The paper analyses the trends in budget allocation, the sectors contributing higher growth rate, and the outlay, and expenditure on different schemes over the years. India is witnessing a decline in share of agriculture and allied sectors in Gross Value Added. The study observed that the growth rate between 2012-13 to 2016-17 has a fluctuating trend since 2012-13. The study also focused on comparing and analyzing different International agricultural policy models. The paper suggests focusing future policies on agriculture as a global agenda and global efforts.

Key words: Agriculture, Allocation, Expectation, Union Budget

UNION Budget is the most in-depth report of the Government's finance in which revenue, expenditure, allocation and estimate of the Government's account for the next fiscal year is consolidated. In a country like India, where 61.5% of population is dependent on agriculture and allied activity for employment, budget plays a key role in giving an estimate of how efficiently the sector is expected to work in the next one year.

The recent state elections in Chhattisgarh, Madhya Pradesh, and Rajasthan have turned the odds against the BJP Government. The upcoming budget remains the only hope that can change the directions of wind. On average, government deficit as a share of GDP is one percentage point larger in election years. This is a large effect, implying that on average the fiscal deficit increases by 23% in election year.

Consumer, producer, farmer, government, bureaucrat are all part of

the economy, each playing its role in economic development. Politics is mostly influenced by votes and policies are made accordingly. In general, when government makes not favorable policy to the producer, inflation arise and consumer is affected with price bubble which in turn reflects as less economic growth at national level. When government supports consumer, producer is adversely affected. In our country, most policies are pro-consumer since the majority of votes are in the hands of the consumer. Agriculture, even though is highlighted as one of the most important sector, is given little importance. The reason being, development in agriculture is a slow process, requires tremendous time, effort, and investment in the right resource.

Much of the literature deals with agricultural policy in democratic, market economy, and determinants of public expenditure have also been analyzed extensively, but budget allocation and ultimate expenditure

on agriculture and agricultural research have received little attention.

Trend

The trend of annual growth rate of real Gross Value Added (GVA), allocation, highlights of the past budget, outlay and expenditure on major schemes and Minimum Support Price (MSP) over the years give a rough estimate of how the budget has contributed to agricultural sector and how political party influence the level of resource allocate to farm sector.

From Table 1, the annual growth rate of GVA for Agriculture, Forestry and Fishing, Mining and Quarrying sectors are less compared to other sector while the service sector records highest growth rate over the period. This data gives a brief view of why the importance and allocation of Government is shifting away from the Agriculture sector.

India is witnessing a decline in the share of agriculture and allied sector in GVA. The growth rate between

Table 1. Annual growth rates of real Gross Value Added at basic price by Industry of origin (2011-12 series) at constant price

Year	Agriculture, forestry and fishing, mining and quarrying	Manufacturing, construction, electricity, gas and water supply	Trade, hotel, transport & communication	Financing, insurance, real estate and business service	Community social & personal service	Gross value added at factor cost
2012-13	1.4	3.6	9.8	9.7	4.3	5.4
2013-14	4.8	4.2	6.5	11.2	3.8	6.1
2014-15	1.5	7.0	9.0	11.1	8.1	7.2
2015-16	2.2	8.6	10.5	10.8	6.9	7.9
2016-17 (PE)	4.4	6.0	7.8	5.7	11.3	6.6
2017-18 (FAE)	2.3	4.5	8.7	7.3	9.4	6.1

Notes: PE: Provisional estimate FAE: first advance estimate

Estimates for the year 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on first revised estimates of national income, consumption expenditure, saving and capital formation was updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017. Estimates of 2017-18 are as per Press Note dated 05.01.2018.

Source: Central Statistics Office

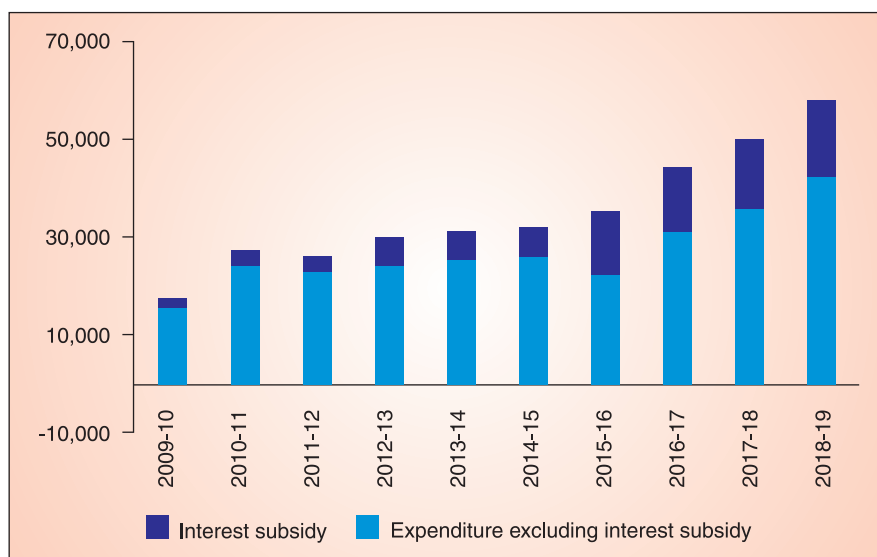
2012-13 to 2016-17 in Table 2. shows a fluctuating trend at 1.5%, 5.6%, -0.2%, 0.7%, 4.9% since 2012-13. However, Livestock sector has observed an increasing share due to shift in employment from the Crop to Livestock sector and so has the allocation of fund to the sectors increased by setting up a Fisheries and Aqua culture Infrastructure Development Fund (FAIDF) for fisheries sector and an Animal Husbandry Infrastructure Development Fund (AHIDF) for financing infrastructure requirement of animal husbandry sector with a total corpus of ₹ 10,000 crore for the two new funds.

The uncertainty in growth of agriculture is explained by the fact that more than 50 % of agriculture in India is rainfall dependent, which aggravate the production risk.

Highlight of the past budget

Some of the highlight of the budget 2018-19 are; increased in Minimum Support Price (MSP) of all crops to at least 1.5 times of the production cost, expansion of coverage of e-NAM to 585 APMCs, to meet the needs of small and marginal farmer in fishery and animal husbandry sector, Government extension of KCC facility to the fishery and animal husbandry sector, and allocation of ₹ 200 crore to organic farming.

The allocation for agriculture sector in 2018-19 budget was kept at ₹ 58,080 crore as against ₹ 51,576 crore for 2017-18. The Standing Committee on Agriculture (2017) observed that funds under the

Fig. 1. Allocation to the Ministry of Agriculture including interest subsidy (2009-19)

Note: Data for 2018-19 is budget estimate, and data for 2017-18 is revised estimate. Rest is actual expenditure.

Source: Union Budget documents between 2013-14 and 2018-19; PRS.

scheme, *Rashtriya Krishi Vikas Yojana* has reduced drastically and continuously between 2012 and 2017. In 2018-19, the scheme, *Pradhan Mantri Fasal Bima Yojana* (PMFBY) was allocated ₹ 13,000 crore, a 22% increase over its revised estimate in 2017-18. It accounts for

Table 2. Agriculture sector-key indicator (% change at constant 2011-12 price)

Item	2012-13	2013-14	2014-15	2015-16	2016-17 (PE)
Growth in GVA in agriculture and allied sectors #	1.5	5.6	-0.2	0.7	4.9
Share of agriculture and allied Sectors in total GVA at current prices#	18.2	18.6	18.0	17.5	17.4
Share of agriculture and allied sectors in total gross capital formation*	7.6	8.5	7.8	6.9	NA
Share of crops*	6.4	7.1	6.4	5.7	NA
Share of livestock*	0.7	0.8	0.8	0.7	NA
Share of forestry and logging*	0.1	0.1	0.1	0.1	NA
Share of fishing*	0.4	0.4	0.5	0.5	NA

Note: *in GVA of agriculture and allied sector; calculation based on National Accounts Statistics, First Revised Estimates, 31st January 2017

Based on provisional estimates released on 31st May, 2017

Source: Central Statistics Office

Table 3. Allocation across Departments (in ₹ cr)

Department	AE2016-17	RE2017-18	BE2018-19	% change
Agriculture & Co-operation	36,912	41,105	46,700	13.6%
Agricultural Research and Education	5,729	6,992	7,800	11.6%
Animal Husbandry, Dairying and Fishery	1,858	2,167	3,100	43.1%
Total	44,500	50,264	57,600	14.6%

Note: AE: Actual expenditure; RE: Revised estimate; BE: Budgeted estimate.

Sources: Expenditure Budget, Union Budget 2018-19; PRS.

Table 4. Outlay on major schemes

Schemes	2016-2017 Actual	2017-2018 Budget estimate	2017-2018 Revised estimate	2018-2019 Budget estimate
Mahatma Gandhi National Rural Employment Guarantee Program	48,215	48,000	55,000	55,000
Green Revolution	10,105	13,741	11,185	13,909
White Revolution	13,09	1,634	1,633	2,220
Blue Revolution	388	401	302	643
Pradhan Mantri Krishi Sinchai Yojna	51,34	7,377	7,392	9,429
Crop Insurance Scheme	11,052	9,000	10,692	13,000
Interest subsidy for short term credit to farmers	13,397	15,000	14,750	15,000
Crop Science	1,348	387	400	800
Agricultural University and Institution	661	663	658	685

Source: Budget at a glance 2018-19; outlays on major schemes

<https://www.indiabudget.gov.in/ub2018-19/bag/bag7.pdf>

Table 5. Expenditure on major schemes - Agriculture, Cooperation and Farmers Welfare (₹ cr)

Major schemes	AE 2016-17	BE 2017-18	RE 2017-18	% change of RE 2017-18 over BE 2017-18	BE 2018-19	% change of BE 2018-19 over RE 2017-18
Interest subsidy for short term credit to farmer	13,397	15,000	14,750	-1.7%	15,000	1.7%
Pradhan Mantri Fasal Bima Yojana	11,052	9,000	10,698	18.9%	13,000	21.5%
Pradhan Mantri Krishi Sinchai Yojana (Per Drop More Crop)	1,991	3,400	3,000	-11.8%	4,000	33.3%
Rashtriya Krishi Vikas Yojana	3,892	4,750	3,050	-35.8%	3,600	18.0%
National mission on horticulture	1,493	2,320	2,190	-5.6%	2,536	15.8%
National food security mission	1,286	1,720	1,400	-18.6%	1,691	20.8%
Sub-mission on Agriculture mechanization	367550	777	41.2%	1,165	50.0%	

Note: AE: Actual expenditure; RE: Revised estimate; BE: Budget estimate.

Sources: Union Budget 2018-19; PRS.

28% of the expenditure under the department. The *Pradhan Mantri Krishi Sinchai Yojana* was allocated with ₹ 4,000 crore, a 33% increase over the revised estimates of 2017-18. However, importance given to research and development (R&D) in agriculture sector is decreasing as

shown in Table 3. The increase in % of allocation to Agricultural Research and Education was the least with only 11.6% increase while the increase in allocation was highest in Animal Husbandry, Dairying and Fishery sector.

The Indian Council of Agricultural

Research (ICAR) was allocated ₹ 4,599 crore for the year 2018-19. This is just 0.6% greater than the revised estimate in 2017-18. In 2017-18, the allocation under ICAR increased from the actual expenditure of ₹ 319 crore in 2016-17. This is due to regrouping of salary, pensions, and office expenditure from all schemes under ICAR.

Table 3 summarize the allocation of funds across departments with the highest increase in allocation observed in Animal Husbandry, Dairying and Fishery, which seems to be the most promising sector and has the potential to increase the farm income as well as the growth rate figure. Agricultural Research and Education received only 11% increases in its funds, the least among all the departments. This gives rise to serious questions aligning to exploring research potential and new technology in India. Without research and innovation, no new technology can be explored, no new innovation can be made and no new breakthrough can be done to overcome the existing problems. Table 4 and 5 give a picture of the Outlays and Expenditure on major schemes since 2016.

After years of independence, India is now self-sufficient in food, but the farmers are still poor with slumping income due to price fluctuation and policies in favor of consumer, makes it difficult for the farmers' survival. Falling price and wage indicate fall in income which has a greater capacity to get reflected in the upcoming poll, just as it was reflected in the state elections of 2018. Table 6 summarizes the trend in Minimum Support Price (MSP) since 2000-01.

Expectations and Strategy

With so many tweets about Farm Loan Waiver making it the buzz topic of the year, the 2019 election has its fate dependent on the upcoming budget. With farm distress making drumrolls round the corner, the focus of Government is mainly on how to improve the substantial rate of distress and to look beyond this at the promise that was made 4 years ago, to double the farmer's income

Table 6. Minimum Support Price (MSP) for selected crops (₹ per tonne)

Crop year	Wheat	Maize	Rice1 (non-basmati)	Soybean (yellow)	Rapeseed and mustard	Groundnut (in shell)	Chickpea	Sugarcane 2	Cotton (H-4 or Long staple)
2000-01	6,100	4,450	7,612	8,650	12,000	12,200	11,000	595	18,250
2001-02	6,200	4,850	7,910	8,850	13,000	13,400	12,000	621	18,750
2002-03	6,200	4,850	7,910	8,850	13,300	13,550	12,200	695	18,750
2003-04	6,300	5,050	8,209	9,300	16,000	14,000	14,000	730	19,250
2004-05	6,400	5,250	8,358	10,000	17,000	15,000	14,250	745	19,600
2005-06	6,500	5,400	8,507	10,100	17,150	15,200	14,350	795	19,800
2006-07	7,500	5,400	8,657	10,200	17,150	15,200	14,450	803	19,900
2007-08	10,000	6,200	9,627	10,500	18,000	15,500	16,000	812	20,300
2008-09	10,800	8,400	12,687	13,900	18,300	21,000	17,300	812	30,000
2009-10	11,000	8,400	14,179	13,900	18,300	21,000	17,600	1,298	30,000
2010-11	11,200	8,800	14,925	14,400	18,500	23,000	21,000	1,391	30,000
2011-12	12,850	9,800	16,119	16,900	25,000	27,000	28,000	1,450	33,000
2012-13	13,500	11,750	18,657	22,400	30,000	37,000	30,000	1,700	39,000
2013-14	14,000	13,100	19,552	25,600	30,500	40,000	31,000	2,100	40,000
2014-15	14,500	13,100	20,299	25,600	31,000	40,000	31,750	2,200	40,500
2015-16	15,250	13,250	21,045	26,000	33,500	40,300	35,000	2,300	41,000
2016-17	16,250	13,650	21,940	27,750	37,000	42,200	40,000	2,300	41,600

Note: MSP does not include the bonus added to the MSP for some crops in some year.

1. MSP for paddy, divided by 0.67.

2. Statutory Minimum Price or Fair and Remunerative Price.

Sources: 2000-01 to 2001-02: Directorate of Economics and Statistics, "Minimum Support Prices" at <http://eands.dacnet.nic.in/MSP/msp-11-08-2004.htm>; 2002-03 to 2007-08: Agricultural Statistics at a Glance 2007; 2008-09 to 2011-12: Agricultural Statistics at a Glance 2012; 2012-13 to 2016-17: Agricultural Statistics at a Glance 2016.

by 2022. With the changes in MSP left unexplained in the last budget and the price still creating a burn in the pocket of farmer, it is expected that some more clarified MSP can be the top notch in the farm budget.

The more politically acceptable situation, right now with Congress ruling the 3 States and giving a promise of loan waiver, certainly the most populist scheme, is income transfer scheme, based on socio economic caste census which can come as a relief for the farmers' pocket. Following the footsteps of Telangana, Odisha, Jharkhand, West Bengal have come up with the similar scheme as *Rythu Bandhu*. This gives more focus on Direct Income Transfer scheme and the importance of this scheme has increased.

Hon'ble Prime Minister said that most farmers don't benefit from loan waiver scheme, as only a few take loans from bank and most borrow from money lenders and the promise given by the states regarding the loan waiver scheme might face the budgetary allocation issue.

Thus, the government is expected to give more importance to Direct Income Transfer. The Central is considering all possible circumstances of the upcoming financial cost, however, according to estimates, if

there is a partnership of states in this scheme then the cost will be reduced to some extent.

Last month, SBI research had advised in a note that 21.6 crore small and marginal farmers could be given 12 thousand rupees per family in two installments per year. In this way, a total of ₹ 50,000 crore will come from the government treasury which is equal to the money spent on MNREGA. The immediate respite for the farmers may be loan waiver scheme but Direct Transfer Income will play equivalent role with a lesser pressure on banking system. To capture some time before announcing a series of other measures and policies, a promise to increase the minimum price for farmers might come as one step towards gaining the confidence for the upcoming polls. A good amount of focus should be given to oilseed due to increasing dependency on import.

Policymakers are more inclined toward a targeted scheme that can immediately provide some relief to farmers as this would also spur the investment cycle in the farm economy. Income policies combined with direct cash transfers in lieu of fertilizer, power subsidy and a strategic MSP explanation can come in aid for the farmers.

International models for policy analysis

Models need to incorporate sufficiently complex interactions between ideology, economic structure, and protection to understand better how this web of interactions affects agricultural and food policy. Consider, for example, food policy of the most extreme left-wing regimes. Communist dictators such as Stalin in Russia, Mao in China, and Hoxha in Albania all heavily taxed agriculture, while farmers were subsidized under the Communist regimes of Brezhnev in the Soviet Union and in most East European Communist countries in the 1970s and 1980s. Swinnen, Banerjee, and de Gorter (2001) find how some of the changes in voting rules in Belgium had effects on agricultural protection, while others had no effect. In particular, those changes in electoral rules which disproportionately benefited people involved in agriculture (such as extending voting rights to small farmer and tenant in the early twentieth century) induced an increase in agricultural protection, while electoral changes (such as extending voting rights to women) did not affect agricultural protection. Rather, they increased voting rights both of those in favor of and of those



against protection.

China: Taking examples of the socialist countries trend in agricultural development, it can be said that agriculture is difficult to plan and control. However, the transformation in Chinese agriculture and the increasing role of government in bringing this transformation cannot go unnoticed. The new system has given the farmers control over the farm land, increased the price paid to farmers for their productions, thus making China, a net exporter of agricultural products. China's agricultural policy framework has been evolved in line with fundamental reforms carried out since 1978 and resulting in a gradual transition from a centrally planned

economy towards a socialist market economy.

During the reform period, agriculture and rural areas provided two major boosts to China's development. The first major transformation came in the policy environment in agriculture in the early 1980s when the tightly controlled commune system was replaced by the Household Production Responsibility System (HPRS) in which individual farmer was given right to lease land from the collectives, making them autonomous. The second began in the late 1980s, when sub-national governments promoted the growth of rural non-agricultural industry, known as township and village

enterprises (TVEs). These enterprises were the main vehicle for absorbing worker leaving agriculture, necessary for China's growth and development. A uniqueness of China's experience in the late 1980s and in the 1990s was that the bulk of the shift in employment took place within rural economy rather than through migration from rural to urban areas.

Accordingly, policies aimed at raising agricultural income were adopted with a fundamental shift from taxing agriculture to supporting it. This shift coincided with China's accession to the World Trade Organization in December 2001 which placed China's support policies within a framework of internationally recognized rules and regulations.

Table 7. The North American agricultural policies

Key initiative	United State	Mexico	Canada
	2002 Farm Act	Agri-food Armor and National Agreement for the Countryside.	Agricultural Policy Framework (APF).
Description	Legal framework for U.S.farm programs through 2007 crops.	Separate but over lapping outlines of intended agricultural policies.	Comprehensive effort to reshape Canada's agricultural policies.
Status	Signed into law, May 2002	Many elements were previously planned; others are being implemented in apiece meal fashion.	All provinces have signed onfor the APF to take effect
Income support	Triad of programs—direct payments, counter cyclical payments, and Marketing loans—provides income support for wheat, feedgrains, upland cotton, rice, peanuts, and oilseeds. New counter cyclical programre places ad hoc emergency assistance. Marketing loans extended to certain pulses, mohair, wool, and honey. Extensive planting flexibility is maintained.	PROCAMPO continues to provide direct payments on a simple per hectare basis, while the subprogram of Direct Supports to Target Income provides counter cyclical assistance to grain and oilseed producers. Marketing supports geared for commercial producers continue under The guise of the Program of Direct Supports to the Producer through Marketable Surpluses.	The new Canadian Agricultural Income Stabilization (CAIS) program integrates in-come stabilization and disaster protection. It replaces an earlier subsidized savings program for producers, as well as a previous and hocprogram of emergency assistance.
Conservation	Almost all programs are expanded. Land retirement through the Conservation Reserve Program remains the primary conservation program	Secretariat of the Environment and Natural Resources (SEMARNAT), which is separate from the agricultural secretariat, operates other conservation programs.	APF intends to finance voluntary farm environmental plans.
Rural development	Funding provided forplanning and coordination between rural areas and officials, addressing backlog of applications for water and waste water programs, andseveral new programs.	Emergency spending and credit allocations bolster ongoing efforts to reduce rural poverty. Alianza Contigo continues efforts to boost agricultural productivity.	APF plans to offer producers a broad range of services (training, consulting, marketing information, and networking). Science and innovation efforts require further planning.
Agricultural credit	Rules of Farm Service Agency are relaxed to expand eligibility and streamline program delivery.	FIRA implements new services and financial strategies.	—
Nutrition	Food Stamp and commodity distribution programs are reauthorized.	Rural development efforts include nutritional initiatives; strong focus on the less fortunate and marginalized communities.	Nutrition falls within the jurisdiction of Health Canada a cabinet ministry.
International trade	All trade programs reauthorized. New programs concern international food aid for education, trade barriers, and online help.	Policies promise more vigorous enforcement of trade-remedy laws and request consultation regarding NAFTA's provisionsfor corn and beans.	Key element of Canada's agricultural strategy is improving market access, even though trade is not explicitly one of the APF's pillars.

Source: Zahniseretal 2005



Table 8. Latin American Agricultural Policies led by Transnational Corporations

Country	Regulatory Body	Seed Industry representatives	Institutes promoting Agricultural Science and Technology	State of Legislation Governing GMOs	Dominant companies
Argentina	National Advisory Commission for Agricultural Bio-technology (CONABIA)	Argentine Seed Producers' Association	National Institute for Agricultural Technologies (CONICET) www.inta.gov.ar	Decrees emanating from sub-ministerial level. No specific legislation.	Monsanto Dekalb Cargill Nidera Don Mario
Bolivia	Biosafety Commission and National Seeds Committee	National Association of Oil Seed Producers and Wheat Growers (ANAPO)	Bolivian Institute of Agricultural Technology (IBTA)	National Biosafety Law with implementation problems.	SEMEXA Aventis
Brazil	CTNBio	Brazilian Association of Seed Producers	Brazilian Enterprise for Agricultural Research (EMBRAPA) www.embrapa.br	Biosafety Law. Includes a section on environmental impacts.	Monsanto Agroceres Cargill Braskalb Novartis Pioneer Â +
Colombia	CTN	Colombian Association of Seed Producers	Colombian Corporation of Agricultural Research (CORPOICA) www.corpoica.org.co	—	—
Chile	CALT	National Association of Seed Producers	Agricultural Research Institute (INIA) www.inia.cl	Decree	Pioneer Cargill Agrotuniche Novartis ANASACÂ +
Mexico	CIBIOGEM	Mexican Association of Seed Producers (AMSAC)	National Institute for Forestry, Agricultural and Livestock Research (INIFAP) www.inifap.conacyt.mx/	None. Only a general law on seeds.	Monsanto Cimmyt SVS Mexicana Pioneer Aventis Calgene CIICA +
Uruguay	CE RV Commission RV GM	National Association of Seed Producers (ANAPROSE)	National Institute for Agricultural Research (INIA) www.inifap.conacyt.mx/	Decree	Pioneer Monsanto Novartis Nidera Syngenta Don Mario

Source: Walter Pengue, 2004.

Table 9. The Sub Saharan Africa Agricultural Policies with Donor agency and role of State in agriculture.

Issues	DFID Growth and poverty reduction the role of agriculture	World Bank Agricultural growth for the poor: agenda for development	OECD Enabling pro-poor growth through agriculture	USAID Agriculture strategy: linking producer to market
State vs. market	'Proactive role' for the government in agriculture in the poorest countries in earliest stages of development. Government and markets are complements rather than substitutes. Role for the state in creating markets where they are missing. Targeted and Coordinated public spending with priority to public goods that support private investment.	Government should act as facilitators of private sector development and not any more as active participants in production, processing and trade. The public sector is no longer the main driver of development. It must work in partnership with private sector, exploit the best of the NGOs, civil society and international donor and finance organizations.	Institutional support by the state has been discredited. The introduction of private sector institutions to play more central roles in agriculture only partially successful. Need to develop solutions which exploit the best of the public and private sectors, including NGO sector	Do not address the debate Directly although stressing the need to create enabling conditions for private sector development throughout.
Infrastructural development	Strong case for the state to invest heavily in infrastructure, particularly road and Irrigation. Investment in infrastructure using combination of public and private funds.	Investments in agricultural research, education and rural infrastructures are often the most effective in promoting agricultural growth and reducing poverty.	Need for public investment in road and transport service and reverse declining trend in government an donor investment	—
Agricultural technology and research	Need for an effective system of publicly funded agricultural research. Build on innovations that involve the public and the private sector. Important role for NGOs in making technology available to the poor.	—	Government should reinvigorate agricultural research. Involvement of private sector and civil society organisations in technology development and dissemination	Expand public-private partnerships and networks.

Contd.



Table 9. (Concluded)

Issues	DFID Growth and poverty reduction the role of agriculture	World Bank Agricultural growth for the poor: agenda for development	OECD Enabling pro-poor growth through agriculture	USAID Agriculture strategy: linking producer to market
Regulation and property rights	Government should introduce the necessary regulations to make market function properly. Government need to match legal requirements with administrative capacity – with regards to land titling common property.	The development of private markets depends on public sector provision of an effective and streamlined regulatory environment.	Establish stable and support regulatory framework. Improve functioning of land markets and establish more secure access to land.	
Financial services	Government subsidy and guarantees may be justified in circumstance where there is shortage of seasonal credit, in order to build the capacity of rural land agricultural finance providers.	The priority for public policy is to create the conditions for financial institution and market to develop, rather than provide credit directly for agriculture	Develop financial service for agricultural producer through public and private sector resources	
Input and output markets	In the immediate term, government may need to act to protect farmers from price volatility in thin market. In Africa need overcome market failures in input and output market including through use of guarantees and targeted subsidies. The provision of subsidies should be a temporary measure focusing on removing barriers to private sector participation in market	Policies to liberalise and privatisemarket functions must be carefully phased and must include institutional mechanisms designed to keep market competitive, provide support service, facilitate private investment andthe provision of private goods, and ensure that markets remain free of political interference.	Competitiveness and potential growth of agriculture has been constrained by inappropriate and inefficient interventions in input and output market. Policies needed to liberalise trade, reform markets and exploit synergies of both public and private sectors.	Open market and private development
Social protection	Provision of free agricultural inputs is problematic–Malawi experience – distorts market. Cashtransfers as a promising solution.	—	Introduction of new instruments such as weather-based crop insurance and price hedging, buffer stocks and technologies. Personal insurance, cash transfers, saving and investment schemes and promotion of non-farm employment opportunities.	—
Governance structure	Institutional reforms, Including decentralisation, make government more receptive to poor people's voices. Need to strengthen structures public sector institutions so that they can deliver important function to support agricultural development.	Agricultural issues now involve multiple ministries, from environment to trade and health. Need to provide support across these ministries and their counterpart departments in donor and development banks.	Decentralized governance structures and service delivery with greater involvement of the poor in policy design and implementation. Dialogue with private sector and creation of new public-private partnerships.	—
Public spending in agriculture	Direct public spending where it will have the greatest impact on in agriculture agricultural growth and poverty reduction	Reduction in the share of public spending in agriculture is consistent with agriculture structural transformation. Efficient use of available funds more important than level of spending.	Carefully targeted public expenditure in improving infrastrure and transport service. Invest in research that addresses that needs of the poorer and more vulnerable producers.	—

Income support policies were further strengthened through adoption of the highest priority document of central authorities for 2004 (Document No.1). This document put forward a set of agricultural policy measures which, through their increasing

geographical and commodity coverage, became key channels for providing support to China's agriculture. An important and symbolic change in China's approach to agriculture was the abolition of the long established agricultural tax,

which was effectively implemented by early 2006, after 2 years of its application.

North American: The three largest agricultural producers of the northern half of the Western Hemisphere—the United States, Mexico, and Canada—



Table 10. A comparison of policy measures: reduction in the impact of high food price.

	Consumer orientated					Producer orientated		Trade orientated		
	Macro Eco- nomic	Social	Market			Production Support	Market man- agement	Import	Export	
	Interest and exchange rates	Food subsidy and other	Price control and tax	Release stock	Food procurement and other	Producer credit and other	Minimum pro- ducer price and other	Import tariff and other	Quantitative export control	Export price control and tax measure
Brazil	Increased interest rate		Lowered the excise tax on petrol and diesel	Released stock of beans, maize and wheat	Increased fund to raise the level of safety stock	Increased access to credit and expanded extension service	Increased minimum price for 2008/09 crop season	Reduced tariff on wheat, sardine, palm kernel oil and some fertiliz- er; eliminated the merchant marine levy on wheat and flour		
Chile	Increased interest rate	One-off cash bonus for the 40% poorest								
China	Allowed the CNY to appreciate		Price control on cooking oil, pork, egg, instant noodle, milk, grain, natural gas, gasoline and electricity	Released stock of grain	Stopped approval for any new grain- based biofuel pro- cessing plant	Increased subsidy for the purchase of farm ma- chinery, fuel, fertilizer and improved seed	Increased minimum purchase price for wheat and rice	Reduced tariff for a variety of products including pigmeat, cod fish, infant food, soy- bean and peanut meal.	Imposed export license on grain, soybean and flour	Suspended VAT export rebate on grain and grain prod- uct, later reinforced by provisional export tax on grain, soybean, flour and fertilizer
India	Increased interest rate	Increased food subsidy	Administra- tively fixed price of key food product for public dis- tribution kept unchanged	Efforts to secure sufficient supply of grain for buffer stock		Increased input subsidy particularly for fertilizer	Increased minimum Price and banned future trading on arange of agricultural commodities	Removed tariff on wheat, rice, maize and pulse	Export ban on wheat, corn, pulse and non-basmati rice	Introduced minimum export price and duty on basmati rice
Russia	Increased interest rate		Price freeze on wheat and rye bread, milk and fer- mented milk, sunflower oil and egg; voluntary price restraint agreement	Released stock of grain		Fuel subsidy to mitigate higher en- ergy prices; additional per tonne subsidy for pig meat and poultry		Reduced tariff on milk and milk product, cheese, some type of vegetable oil and vegetable Lifted duty on poultry and egg imported for breeding pur- pose	Introduced temporary ban on export of wheat to Belarus and Kazakhstan	Introduced export tax on grain
South Africa		Increased spending on the food package programme			Lowered the bio- fuel target level in liquid fuel from 4% to 2.5%			Removed tariff on maize if the world prices greater than USD 110 for more than two weeks		
Ukraine			Mark-up limit on flour and retail price limit on bread, voluntary price restraint agreement	Released stock of grain, flour, sugar and meat				Granted preference to state trading enterprise	Export quota for grain and oil seed	

Source: OECD Secretariat, 2008. The table structure is based on the FAO Global Information and Early Warning System (GIEWS).

have revised their Agricultural policies (Table 7). The United States, Mexico, and Canada have each made significant changes to their agricultural policies over the past several years. In the area of income supports, each country has instituted

a countercyclical program that provides additional assistance to producer during downturns in commodity price, and each continues to decouple key support program from production decision.

In other area, the reforms of the

three countries have different point of emphasis. The United States has expanded spending on conservation activities, especially on land in production; it has made important changes to peanut and tobacco program; and it has implemented a



Table 11. The share of sector in total GDP and population continent-wise

No. Country/ Economy	Agriculture Industry Service			Population	% Share in world population
World	6.1	31.1	62.9	7,46,69,64,280	
AFRICA					
1. Nigeria	24.5	23.0	52.5	18,59,89,640	2.5
2. South Africa	2.5	31.6	65.9	5,60,15,473	0.8
ASIA					
1. China	10.1	46.8	43.1	1,40,35,00,365	18.8
2. Japan	1.2	27.3	71.6	12,77,48,513	1.7
3. India	17.2	26.4	56.4	1,32,41,71,354	17.7
4. Indonesia	14.7	47.2	38.1	26,11,15,456	3.5
5. United Arab Emirates	0.8	53.9	45.3	92,69,612	0.1
6. Iran	10.4	37.7	51.8	8,02,77,428	1.1
7. Saudi Arabia	2	69.1	28.9	3,22,75,687	0.4
8. South Korea	2.6	39.2	58.2	5,07,91,919	0.7
9. Thailand	13.3	34	52.7	6,88,63,514	0.9
10. Taiwan	1.3	32	66.9	2,35,56,706	0.3
11. Turkey	9.3	28.1	62.6	7,95,12,426	1.1
AUSTRALASIAN					
1. Australia	3.6	28.2	68.2	2,41,25,848	0.3
EUROPE					
1. Germany	0.8	28.6	70.6	8,19,14,672	1.1
2. Netherlands	2.7	24.2	73.1	1,69,87,330	0.2
3. Russia	4.5	36.9	58.6	14,39,64,513	1.9
4. Switzerland	1.3	27.5	71.3	84,01,739	0.1
5. Spain	3.2	25.8	71	4,63,47,576	0.6
6. Italy	2	24.7	73.4	5,94,29,938	0.8
7. Sweden	1.8	27.3	70.9	98,37,533	0.1
8. Belgium	0.7	21.7	77.6	1,13,58,379	0.2
9. Poland	3.4	33.6	63	3,82,24,410	0.5
10. United Kingdom	0.7	21.4	77.8	6,57,88,574	0.9
11. France	1.8	18.8	79.4	6,47,20,690	0.9
12. Austria	1.5	29.4	69.1	87,12,137	0.1
13. Norway	2.6	39.7	57.7	52,54,694	0.1
14. Denmark	4.5	19.1	76.4	57,11,870	0.1
15. Greece	3.3	17.9	78.9	1,11,83,716	0.1
NORTH AMERICA					
1. United States	1.2	19.2	79.6	32,21,79,605	4.3
2. Canada	1.9	27.1	71	3,62,89,822	0.5
3. Mexico	3.8	34.2	62	12,75,40,423	1.7
SOUTH AMERICA					
1. Colombia	7	37.6	55.5	4,86,53,419	0.7
2. Argentina	11.4	30.2	58.4	4,38,47,430	0.6
3. Venezuela	3.8	35.8	60.4	3,15,68,179	0.4
4. Brazil	5.5	27.5	67	20,76,52,865	2.8

Source: Population - United Nations Department of Economic and Social Affairs, Population Division, Population Estimates and Projections Section. June 2017

Table 12. International institutions model for Agriculture

International Institution	What they stand for
UN	Food for hungry world, Peace
Researcher	Development of HYV seeds to increase the productivity; more Government oriented
Domestic policy	Protectionism
International policy	Dumping policy, more subsidy
Civil Society, NGO and Activist	Continuous communication, management, society welfare
WTO	Free trade, favor consumer, trade rule and regulation
WB and IMF	Zero interest, financial viability, AOI, agricultural growth for the poor: an agenda for development
OECD	Enabling pro-poor growth through agriculture
USAID	Aid to LDC, linking producer to market
DFID	Growth and poverty reduction
CGIAR	Global partnership for sustainable development
Bill and Milinda Gate	Agricultural development in Sub-Saharan Africa and South Asia
IFPRI	Innovative research program
WEF on Agriculture	Promoting market-based solution to accelerate sustainable agricultural growth
G 20, G77, G7	To tackle food price volatility and strengthen food security.
FAO	Hunger, poverty and climate change need to be tackled together.

new program that assists producer who are adversely affected by competition with import. Mexico's new efforts to strengthen the competitiveness of agricultural sector include energy discount for producer, and a revamped approach to agricultural finance. Canada's comprehensive evaluation of its farm program is leading to new efforts concerning the environment, food safety and food quality, science, and the renewal of the Agricultural sector.

Latin American: The Latin American agricultural policies takeover of food and farming by transnational corporation presented in Table 9. In the 1990s, the continent was confronted with a new twist to the Green Revolution model, with the introduction of genetically modified (GM) crops. The GM Revolution extends the logic of the Green Revolution from controlling the inputs (seed and chemical) to controlling the whole chain of agro-industrial activities from seed to supermarket packaging. GMOs sneak ahead of regulation Argentina has allowed the most extensive introduction of transgenic crops via its National Advisory Commission for Agricultural Biotechnology (CONABIA).

Similar agencies have been set up in Ecuador, Mexico, Brazil, Uruguay, Chile, Bolivia and Colombia. Most of them have been more involved in matter regarding the promotion of the new technology than with their regulation.

Sub Saharan Africa: The South Africa Agricultural Policies with

donor agency narratives with regard to the role of the state in agriculture are presents in Table 9. The result show that DFID's most recent agriculture policy strategy place agriculture 'at the heart' of poverty reduction effort and in achieving the MDGs. OECD stress the need for reframing public sector intervention, exploring synergy between public, private, and NGO and ensuring greater intervention of the poor in policy design and implementation. The USAID strategy, in contrast to the two above, centered firmly on a business and market reform. The World Bank's agenda for agriculture reiterate the importance of agricultural growth for poverty reduction and in meeting the MDGs.

Continent-wide policy

The role of government in agriculture in agricultural marketplace is in each step from the farm to the market, there is a framework of national, state, and local government policies. Government may influence what farmer grow, where farm is located, how product is transported and processed, how commodity is traded, and the price farmer might receive.

The agriculture share in GDP (Table 11) for the developing countries, as per the IMF, such as Nigeria, China, India, Indonesia, Iran, Thailand and Argentina have more than 10% whereas, South Africa, Russia, Turkey, Mexico, Colombia, Venezuela and Brazil have less than 10% in its GDP, despite being developing country. While, in the case of South Africa (2.5%), it is the low availability of arable land contributing to the lowest share of

agriculture in its GDP. Rapid urbanization in Colombia during the 20th century has reflected a drop in the agriculture sector with increase in industry and services share in GDP. The study found that high dependence on agriculture is observed in most of the developing countries and the high income economies are focusing more on (>50%) service sector. Saudi Arabia and the UAE has high industry sector share (>50%) which is due to their exploration of oil and petroleum reserve. The more dependence on agriculture will allow the politicians to exploit in the election which is observed highly in India. The political economy of agriculture orientation index (AOI) indicates that the country which has more than 1 index will allocation more budget towards agriculture. It was found that most of the countries AOI is less than 1, which clearly depicts that, globally agriculture is not on the priority list for the local government, except for South Korea and Switzerland, whose AOI is greater than 1 (1.96 and 5.08 respectively).

Developing countries farmer model

The vicious circle of poverty leading to livelihood security, debt trap, and death trap forms the model that underline the working of developing country. The self-perpetuating condition of an economy where it suffers from persistent hunger and under development is known as Poverty Trap. Food and nutritional security are the programs initiated by the government to eradicate the poverty trap. For livelihood security, government initiates many

unemployment programs, among them are the Minimum Wage Act., Agricultural Debt Waiver, and Debt Relief Scheme adopted by government of India to help the farmers in the debt trap.

Why Farmer Sustenance Questionable?

The sustenance of farmer depends on the income security. The income security of farmer is affected by price, market condition, government policy, politician's strategy for vote, economist, profit thirsty corporate and trader who are looking for opportunities to reduce tariff, barrier and duty for ease of trading. The fluctuation in price and the government's pro consumer's scheme giving more priority to low price and higher quality has led to extreme level of income insecurity among the farmers. The budget allocation has been low to the farm sector as compared to other sector. Typical economic theory suggests that price volatility, price crash and price bubble depends on the market driven demand and supply conditions. However, policy has a major role in shaping the course of price and the market condition of an economy. With the majority of votes in the hand of consumer, most policies are pro consumer with the price fluctuating in favor of consumer and farmer suffers from insecurity leading to depression, suicides and debt.

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