

# An Aerial View of Indian Agriculture



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**July, 2020**

## Context

- ❖ Agriculture engages 43 percent of total work-force in the country, 60 percent of country's total land area under cultivation, and uses 83 percent of fresh water
- ❖ India is net food exporting country after feeding 1.35 billion people, yet farmers income levels have not increased as expected
- ❖ Rural poverty at 26 percent
- ❖ Clearly, something is missing in our agriculture.
- ❖ We need to find out that missing 'fuel' which would take our agriculture to new heights
- ❖ Seeks to delve on both 'diagnostic' and desired policy 'prescription'



# Agriculture: Backbone of the Economy

- Importance of agriculture be viewed not from the perspective of just food security but it goes far beyond this
- Heavy dependence on key food stuffs has ramification on National sovereignty.
- Wheat aid to India in mid-1960s, just as an example, was sought to be used as an instrument to arm twist a sovereign country
- This example amply illustrates the possibility of National interest getting compromised
- India moved from import-dependence to self-sufficiency and then to a net food exporting country



# Objective

- ❖ The broad objective of the agri policy framework ought to be to bring about a qualitative and positive changes in the lives of the farmers of India
- ❖ This is important in the wake of farmers' distress and lack of social security for them



# Re-orienting Policy Framework and Governance (1/2)

- Agriculture, Irrigation and Rural Development' is one of three constituents of 'Aspirational India' theme of Union Budget 2020
- Ensuring food security to ever increasing population by increasing agriculture output has been the cornerstone for development of the agriculture sector in India since mid-1960s



# Re-orienting Policy Framework and Governance (2/2)

- ❖ Food security to ever increasing population has been broadly accomplished
- ❖ Implicit in the strategy was an underlying assumption that benefits of augmentation in production and productivity would have trickle-down effect on farmers' welfare in terms of their income levels.
- ❖ This assumption has eluded the Nation.
- ❖ Policy framework being reoriented to explicitly bring farmers welfare to the centre of development agenda



# Diversification to High Value Agriculture (1/2)

- ❖ One percentage growth in agriculture is at least 2 to 3 times more effective in reducing poverty than the same growth coming from non-agri sectors
- ❖ Given rising income levels, consumption patterns in general are shifting away from cereals towards high-value commodities



# Diversification to High Value Agriculture (2/2)

- India can ill-afford to continue with laying emphasis on increasing production of traditional crops which may not necessarily translate into augmentation of farmers' income
- The focus on diversification to high value crops and the adoption of emerging technology are being emphasized





# Agriculture Marketing (1/2)

- Marketing system helps to direct and crystallize demand, develop capacity to ensure operational and pricing efficiencies
- Marketing efficiency is to be achieved by reducing dispersion between prices paid by consumers and those received by farmers

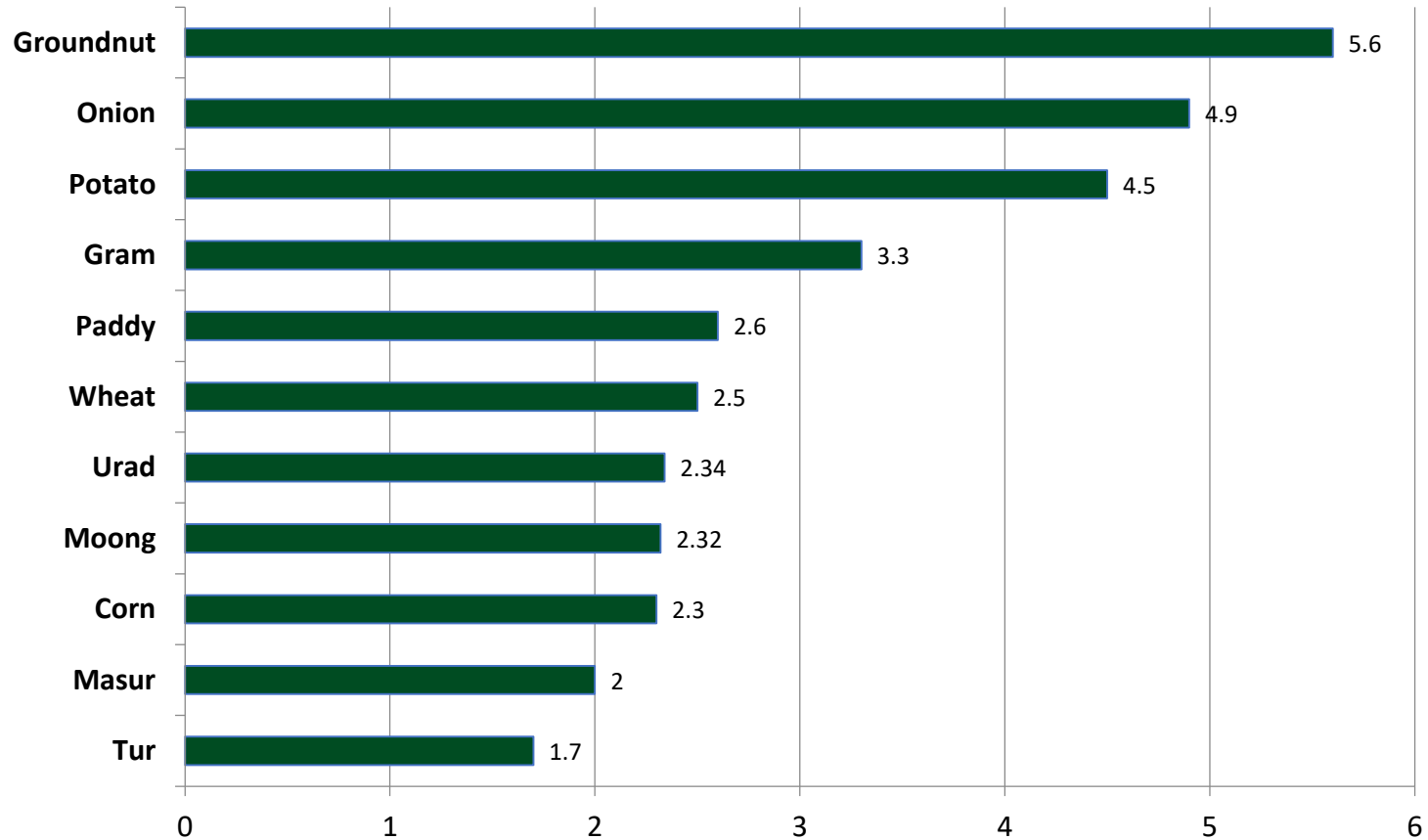


# Agriculture Marketing (2/2)

- Often, farmers suffer from distress sales
- Due to gaps in the storage and marketing infrastructure, poor handling practices, lack of proper storage infrastructure and absence of post-harvest protocols, the country suffers huge post-harvest losses
- The reforms in storage, integrated cold chain, warehousing, marketing and processing have been initiated, the bottlenecks in grant of agri-credit by RRBs are being removed



## Price Dispersion at Farmgate-Select Crops



***Ratio of highest to lowest crop price (state-wise average)***

*The price dispersion, at farm-gate, is clear indicator for the need for a single “one market” ideal.*



# Stable Agricultural Trade Policy (1/2)

- A cogent agriculture trade policy ought to be rooted in the long term food and nutritional security concerns of the country along with promoting farmers with the global market
- the instrument of international agri-trade is often used to control prices in the domestic market, in reaction to short term supply bottlenecks



## Stable Agricultural Trade Policy (2/2)

- ❖ A knee jerk reaction to restrict or impose an outright ban on exports is an implicit tax on farmers and such an approach adversely impacts farmers' incomes.
- ❖ Major bottlenecks in enhancing agri-exports need to be removed to make it stable and more rational trade policy



# Sustainability Concerns in Agriculture (1/2)

- The paradigm of food deficiency and growing population that obtained in the 1960s led to adoption of the technology encapsulated as **Green Revolution**
- This imparted a state of food security to the country,
- It was resource extractive in terms of depleted water table, deficiency of several soil nutrients, land degradation
- Increasingly intensive input usage necessitated to realise the same yield per unit



# Sustainability Concerns in Agriculture (2/2)

- The climate change in terms of intensity, frequency and duration of extreme weather events like floods, droughts, heatwaves, hailstorms -already begun to show deleterious impacts.
- Given the certainty of climate change, mitigation, coping and adaptation measures also deserve due importance in the production strategy.
- The agricultural eco-system, necessary sustainability factors, countering the existing stresses on soil, water and other aspects of the production system as also the larger ecology issues need to be fixed



# Risk Management (1/2)

- ❖ Agricultural system is exposed to various risks which are closely associated with damage or loss
- ❖ Such risks are linked to monsoon and markets
- ❖ Risk mitigation normally requires thought on both financial cover and physical actions
- ❖ The ability to take a risk, or challenge new frontiers is highly limited in the case of farming communities





## Risk Management (2/2)

- Imperative to prepare the farmer to be ready to face risks, evaluate, negotiate and manage them appropriately to minimise its negative outcomes
- The strategies that help build resilience and capacity to recover from challenges resulting from natural calamities, as well as to counter the risks that result from man-made actions, information asymmetry, markets and marketing



# Empowering the Farmers (1/2)

- ❖ Majority of farmers generate increasing amount of marketable surplus, particularly in case of certain commodities, t
- ❖ A strong demand for knowledge and assistance in the post-production phase
- ❖ At the same time, climate change led vagaries require renewed attention to the associated shifts in risks,
- ❖ Shifts in risks include changes in seasonality patterns, nature of pests and diseases, crop planning and input requirements, marketing and prices



## Empowering the Farmers (2/2)

- ❖ A suitable architecture for the extension system that will meet the changing demands of a market led and income-centric agricultural economy needs to be developed
- ❖ And the optimal blend is needed between manpower and technology based extension



# Doubling Farmers' Income (1/3)

- ❖ A paradoxical situation prevails in India where per capita income is rising, production of foodgrains rising along with increasing number of malnutrition, stunted children.
- ❖ Huge disparities in income levels in agriculture and non-agriculture sectors exist,
- ❖ Farmers' prosperity and their welfare - at the centre of the development agenda



## Doubling Farmers' Income (2/3)

- The focus is to move from the 'Science of Discovery' to 'Science of Delivery'
- Need to direct the scientific research into areas that can bring income gains in the comparatively shorter term for all agriculturists, especially for under developed and poorly resourced farmers



# Doubling Farmers' Income (3/3)

- Linking farmers with optimal demand and assisting the marketing system to develop optimised supply chain operations- critical areas where technologies can add great value to the farmer
- A systems approach to develop farms and farmers as enterprises be promoted



# Comprehensive Agri policy (1/2)

- ❖ Agricultural sector, huge in size and complex in nature, cuts across domains
- ❖ The approach to it cannot remain in a narrow prism of a traditional farmers' discipline
- ❖ The prime objective of agricultural development is being moved from production centric to income augmentation



# Comprehensive Agri policy (2/2)

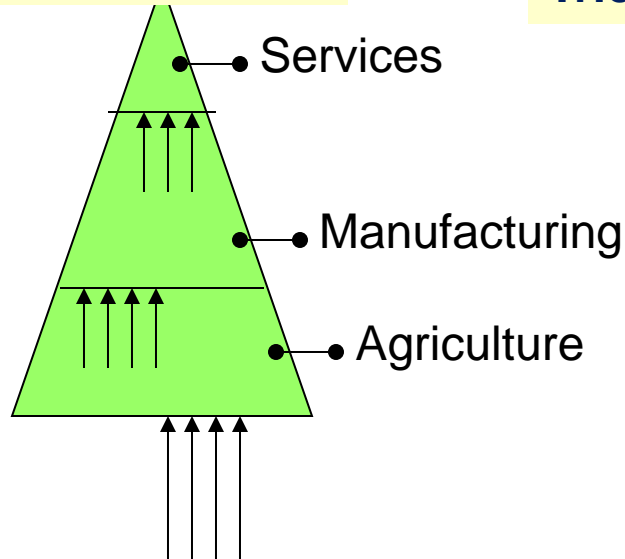
- Approach the agriculture sector from the perspective of its primary actors namely the farmers
- Requires a multitude of cross-domain considerations in bringing a holistic and long lasting strategy to the agricultural sector
- Indian Agrarian societies will find renewed global predominance, as the world faces growing populations and industrial demands, and this will happen in the backdrop of climate change





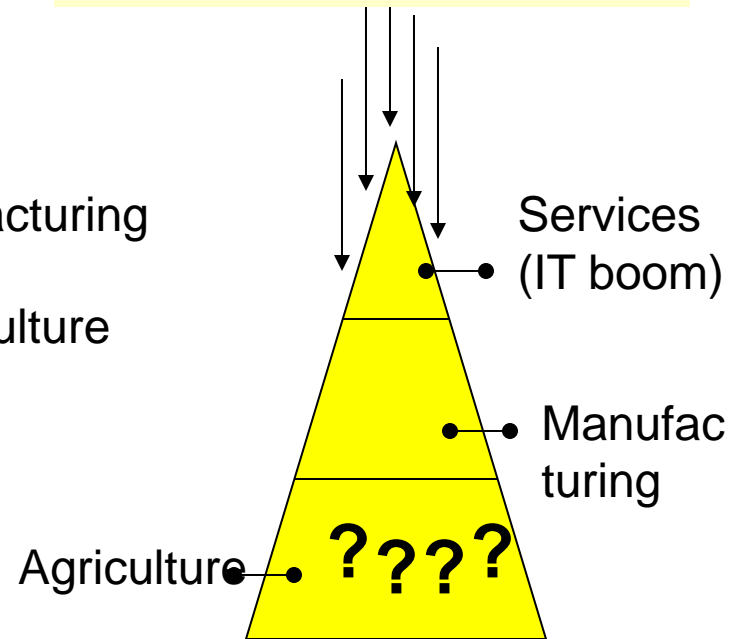
# India : Top Down Approach vs China: Bottom-Up Approach

China (The Dragon)



Firing from the Bottom

India (The Elephant) :  
Trickle Down



Trickle down works slow, Start with Agriculture



# Quiz (1/3)

## Quiz Question-1

India was importing staple foodgrains in mid 1960s, mainly from which country?

- (a) USA
- (b) UK
- (c) China
- (d) France



## Quiz (2/3)

### Quiz Question-2

In terms of food security, how is India placed in post-2010?

- (a) Net food importing country
- (b) Net food exporting country
- (c) food imports & food exports are almost equal
- (d) both (a) & (b) depending upon weather and monsoon



# Quiz (3/3)

## Quiz Question-3

Poverty level in Rural India, according to official estimates, is around:

- (a) 19 percent
- (b) 26 percent
- (c) 29 percent
- (d) None of these



# References

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**Thank you**