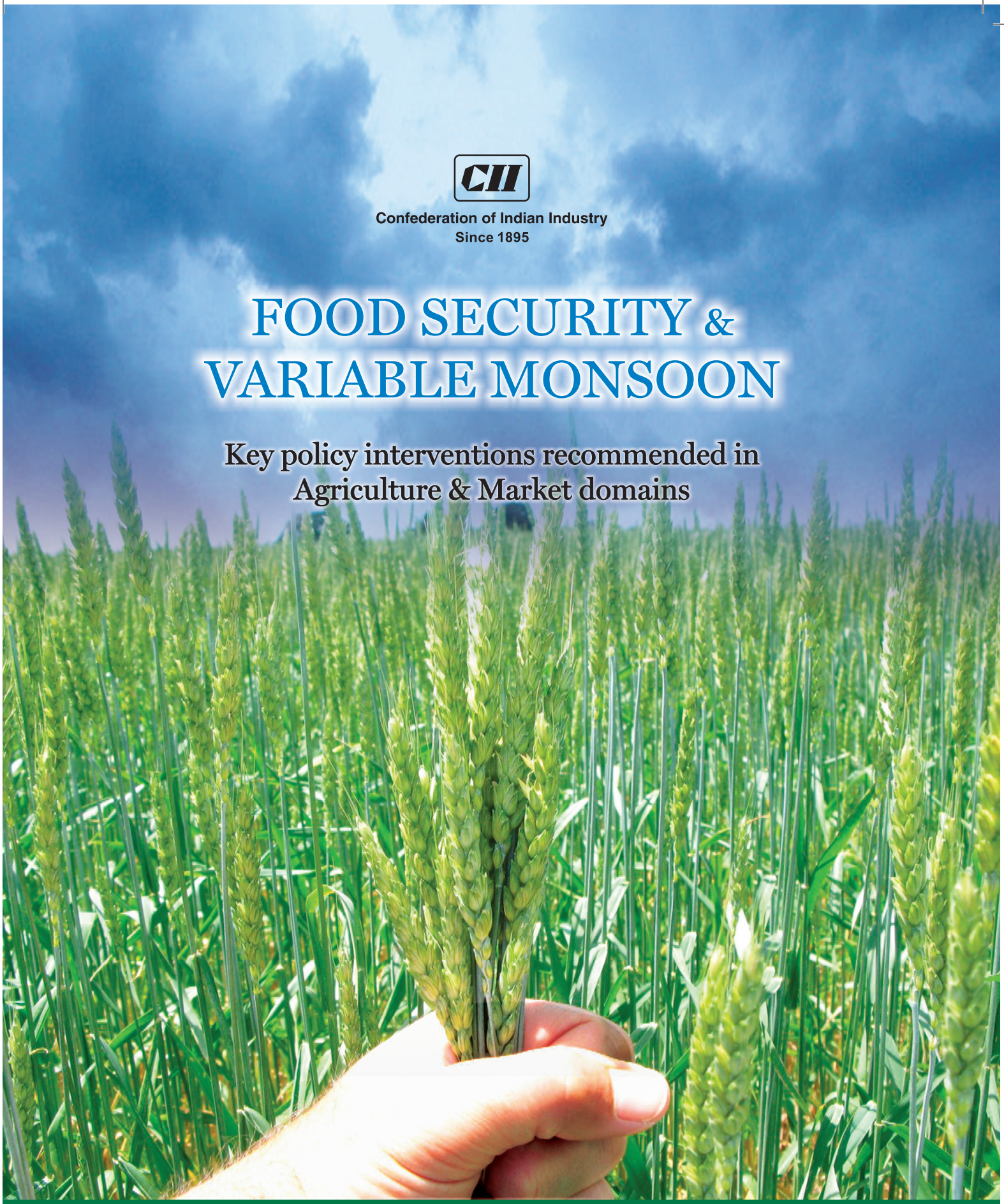

Confederation of Indian Industry
Since 1895

FOOD SECURITY & VARIABLE MONSOON

Key policy interventions recommended in Agriculture & Market domains

A Report by CII Expert Group on Monsoon

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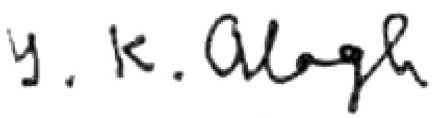
Foreword

It is said that the Indian economy is a gamble in the monsoons. The economy is now an unstoppable power house, rainfall unreliability still creates many problems and causes many worries. Aberrant monsoons are an act of nature and have serious implications as far as food security is concerned, based on domestic supplies and welfare in terms of employment and drinking water.

The need is to be prepared with a series of short to medium-term measures to be rolled out to minimise the adverse impact of monsoon failure or floods when it occurs, so as to ensure employment, welfare and food security, particularly of poorer people and underdeveloped regions.

The aberrant monsoon behaviour in the country calls for some necessary measures that can help manage the situation better in the years to come. Towards this endeavour, the CII Expert Group on Monsoon was constituted, with a view to suggest to the Government a well-thought out strategy to combat variable monsoon (in the form of excessive rains or drought) and to ensure food security.

This Report of the CII Expert Group on Monsoon suggests a coordinated systems policy intervention that can help to bring about the requisite structural modifications in the system so as to address the variable monsoon as well as the food security concerns. Better forecasting, macro policies since the release of grains are both deflationary and welfare supporting, involvement of markets and principal actors in the economic regime and decision support mechanisms, as also detailed plans for the affected people and regions are some of the many policies suggested.



Yoginder K Alagh, PhD
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Former Minister of Power, Planning and Science and Technology

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Executive Summary

India has been witnessing the phenomenon of erratic agricultural monsoon quite consistently now (every two to three years). This has serious implications as far as self-sufficiency and food security of the Nation is concerned. Following the poor monsoons during the last agricultural season, we had witnessed its impact on the food prices. CII has identified a series of short to medium-term measures to be rolled out to minimise the adverse impact of monsoon failure when it occurs and finally to reduce our dependence on monsoon as such.

Towards this endeavour, The CII Expert Group on Monsoon was constituted, with a view to suggest to the Government a well-thought out strategy to combat variable monsoon (in form of excessive rains or drought) and finally to reduce the dependence of Indian agriculture on the monsoons. The group believes that the key lies in addressing various domains separately, so as to bring about the requisite structural modifications in the system.

This report gives a holistic set of policy interventions proposed by the Expert Group to avoid the oft-repeated saga of dependence of agriculture on monsoon thereby ensuring food security. The key suggestions of the Expert Group are as follows;

A. *Agriculture Domain: The need is for:*

1) Emphasis on Certain Crops
2) Water Management and Pricing
3) Sustainability

B. *Market Dynamics: Requires attention in the areas of:*

4) Movement of Food
5) Harmonize Trade and Tariff Policies
6) Market Mechanism to augment supply

C. *Risk Management through Hedging*

7) The group supports Spot Commodity Exchanges as a suitable means of hedging risk in agriculture.

8) Also for complete price efficiency support infrastructures like proper transportation, and logistics, like assaying, warehousing, payments network, etc., are a must.

D. *Improved Forecasting and Decision Support systems*

9) The group proposes a six-point programme for using satellite data to supplement traditional sources of agricultural and rural statistics.

10) Emphasis should not only be on the total quantum of rainfall in the whole country during the four-month monsoon season (June-September) but also its distribution in terms of space and time.

The group presents this report with the firm belief that the vision of attaining self-sufficiency in food and ensuring food security for all that we have set for ourselves is not unattainable; however the only need is to apply our collective forces, from the private as well as public sectors, to facilitate transition towards this goal.

Introduction

"We didn't understand the crisis of land and water till last year even though agricultural growth rates had flattened"

– Dr Y K Alagh
Chairman, CII Expert Group on Monsoon

The Indian economy is often referred to as a 'monsoon economy'. This in itself reflects in our minds the critical role that monsoon plays in the Indian economy. It is a common notion that the monsoon rains greatly impact the health of the economy. Good monsoons correlate with a booming economy while weak or failed monsoons (droughts) result in widespread agricultural losses and substantially hinder overall economic growth. This is, however, the perceived story of Indian agriculture and while having a kernel of truth, it does not hold completely true any longer.

Take the case of 2009-10; in this period, the growth of agricultural GDP was 0%, which is not great news, but since agriculture now accounts for less than a quarter of the GDP, the economy still grew at 8% that year. Rainfall failures cause misery but its effect on the overall growth is less than that of global slowdowns and declines in exports and FDI.

In fact, India is no longer an economy that gambles on the monsoons. In the last three decades, we have had our share of droughts but low-growth years have been very few. Until the mid-1970s, half the annual growth was negative while in the other half the economy grew by between 3% and 6%, giving us the average Hindu growth rate. But since then, we have had only two years with a growth of less than 3%.

In the present day scenario, the issues in agriculture are no longer restricted to a one-off indifferent monsoon or food inflation in an aberrant year, but of an emerging food shortage in the country. However, monsoons still impact

on drinking water and employment in many rainfed and dry regions. Also, they have commodity and secondary effects.

There are four stories here. First, meteorological and an agricultural drought are, to an extent, two different issues. Second, the Indian economy, in its macro dimensions, no longer gambles only on the monsoons. Third, an agricultural drought has very specific effects on crops and regions while the rainfall pattern largely affects drinking water and employment. Fourth, tracking events and ameliorating policies are essential to diagnose the negative effects and ameliorate them in time. Thus, the name of the game is to understand this, and to get going.

Even though agriculture area in the country is largely rainfed and meets its irrigation requirements from the rainfall received during the monsoon season, the economic dependence of India over the monsoons is reducing. Today, the most critical question looming large over India is the issue of food security, i.e., Can we feed our billions with rising and diversified food demand? The answer is yes, provided a concerted strategy to do so is designed and implemented.

While in the short run various measures need to be taken to ensure adequacy and price stability of food supplies, it is imperative to address some distortions in the production pattern and distribution mechanism in the medium and long run to avoid the oft-repeated saga of dependence of agriculture on the monsoons and to ensure food security.

Thus, for ensuring food security and for sustainable development of agriculture, CII has proposed some policy interventions, which will also minimise our dependence on monsoons, in the following domains;

- Agriculture
- Market & Infrastructure
- Risk Management through Hedging
- Improved Forecasting and Decision Support systems

Policy Interventions Suggested in Agriculture Domain

India faces a formidable task on the food production front. Today, production should be adequate to provide balanced diet to over 1.2 billion persons. The need is to strengthen the ecological-economic foundations for sustainable advances in productivity and production, and impart an income orientation to farming, helping bridge the gap between potential and actual yields and income in farming systems. Thus, we need to develop long-term and short-run strategies of development, in the agriculture domain in which externalities and inter relations are not lost sight of. Some of the suggestions are as follows;

1. Emphasis on certain crops

Many weather risk management strategies fit squarely into sustainable agriculture practices and can, therefore, be promoted with several programmes and policies targeting environmentally responsible production. Some such strategies that can be adopted are;

- Immediate need to narrow the focus and concentrate on crops that are important for ensuring food security but at the same time are less water intensive.
- Policy initiatives on water intensive crops like rice and sugarcane. For example, exigency in the discontinuation of rice transplant before monsoon, which tends to obstruct seepage of rainwater and amplifies salt levels, is much needed. Also encourage DSR (Direct Seeded Rice) and SRI (System of Rice Intensification) for rice cultivation etc,.
- There is urgency for revamping the cropping patterns. An important change is to shift the focus from growing water intensive crops in the rainfed areas of the country to the water abundant regions of North East India which have the potential of becoming the food bowl of the country. This essentially is to be directed by a policy enforcement from the Government.

- Changes in cropping patterns and cropping systems, like multiple/mixed cropping, intercropping systems with legume components, etc., to suit the local resources and weather conditions.
- Introduce ecological farming practices, which can maximise local resource use. We need to ensure increased production of crops with efficient combination of inputs and the least possible wastage of environmental resources. Many of these practices are based on indigenous knowledge and focus on building soil biological productivity. Non-Pesticidal Management, Organic Soil Management, Community Seed Banks, System of Rice Intensification, Soil Moisture Management etc., have already proven to be useful.
- Adopt local crop varieties, especially in saline and flood prone areas, drought prone areas, making suitable selections adopting Participatory Plant Breeding and Participatory Varietal Selection. Agricultural practices and climate synchronisation will help to deal with environmental distortions characterised by Indian agriculture.
- Since land and water are shrinking resources, and climate change is a real threat, there is an urgency to spread conservation and climate-resilient farming. A conservation-cultivation-consumption-commerce chain should be promoted in every block.
- Incentivise Rashtriya Krishi Vikas Yojna (RKVY) so as to reap maximum benefit out of it.

2. Water management and pricing

It is a well-known fact that the geographical area of the country or the extensive land frontier for exploitation has reached its limits. In Punjab, and Western UP, which are a major contributors to the country's food bowl, groundwater level is at an all-time low. A very dramatic effort will thus be needed to harvest and carefully use the available water so that the dependence on monsoons can be reduced.

The National Agriculture Policy 2010 also prioritises conservation and utilisation of natural resources, especially land and water, on a sustainable basis. Some policy suggestions of the Expert Group to use the water judiciously and cost effectively are:

- Propagate and intensify use of technology in irrigation, and complete on going new irrigation projects on top priority.
- Upkeep and maintenance of the existing vast canal system in the country
- Bring standardisation in micro / drip and other irrigation equipment
- Propagate low water using agronomic practices, such as Direct Sown Rice (DSR), System of Rice Intensification (SRI), Laser Levelling, etc.
- Water harvesting and recharging of aquifers on a sustainable basis
- Uncap subsidy scheme on micro / drip irrigation in both value and acreage
- Right pricing of power and water, with provision of subsidy to small and marginal farmers. Even today, the farmers are paying for diesel.
- A Nation-wide Mission on Sprinkler and Micro irrigation along with a Nation-wide programme on irrigation infrastructure
- A long-term plan to intensify Public Private Partnership in irrigation projects wherein the overview and planning of the project can be under the Public domain whereas the implementation part can be carried out by the Private Sector agencies. (Annexure I)
- Creating awareness about alignment of crop practices with water usage
- Promoting Community based water management practices. (Success stories enclosed in Annexure II)

3. Sustainability

The National Agricultural Policy (Ministry of Agriculture, 2000) of the Government of India aims at agricultural growth (4% annually by 2020) with sustainability, by a path that will be determined by three important factors: Technologies, Globalisation and Markets.

Agricultural research and education of the future must therefore address two related challenges: increasing agricultural productivity and profitability to keep pace with demand, and ensuring long-term sustainability of production.

Given below are some techniques with which policy-makers can integrate sustainability into the agriculture system;

- Design and develop strategy and policy with environmental costs and opportunities seen as a part of the judicious economic process itself.

- Evolve policies for development like;
  - Strategic interventions to introduce sustainability concerns.
  - Evolution of new market forms in areas of concern like backward areas, fragile lands etc.
  - Interventions may involve subsidies, taxes, information systems etc for the development and sustenance of new organisational forms.
- Evolve policy for optimal usage of fragile resource bases like land and water. These will include areas of low and/or variable water availability, poor soils, special eco-problem areas like hill and forest areas, cold and hot deserts, coastal lands and islands and polluted river valleys and degraded areas.
- Develop waste land for agriculture use so as to protect the good agricultural land as well as to bring more and more land under agriculture.
- Develop institutional structures and networks to effectively deal with problems of sustainable development resulting from globalisation, such as removal of imperfections in markets, integration of tariff with price and monetary and technological policies, insecure access to food, water and energy, health threats, vulnerability of eco-systems and biodiversity, and threats to cultural and value systems.

Policy Interventions for Improving Market Dynamics

Demand and supply scenario for agriculture in India has undergone profound changes during the last 10-15 years. However, farm price policy and policy for food movement and management have not been changed to adjust to the new situation. This has created serious imbalances in production and has raised several other problems like accumulation of huge grain stocks, increase in food subsidy bill, neglect of efficiency and quality, setback to private trade and unequal support to agriculture on a regional basis. Interventions in the marketing domain are therefore needed to overcome the constraints in the existing system and ensure food security through efficient distribution of the available food. Some of the suggestions are;

1. Movement of food

The food needs and supply gaps in a developing country like India are developmental issues and thus policies for agriculture are primarily aimed at harnessing the potential for increasing productivity and production in the agricultural sector and augmenting farm income.

With a network of more than 400,000 Fair Price Shops (FPS), the Public Distribution System (PDS) in India is perhaps the largest distribution machinery of its type in the world. This huge network can play a more meaningful role if only the system is able to translate into self-sufficiency by ensuring availability of food grains for the poor households. Some of the policy suggestions for the same are;

- Coordinate the Government's procurement, distribution, and buffer stocking programmes with the private foodgrain marketing, so as to use its potential to contribute to long-term food security. This will further encourage modernisation of marketing resulting in efficiencies.
- It is being proposed that the Government should use the regulatory mechanism only when price movements are outside the desired price-band

representing width between the ceiling and floor price, which permits reasonable marketing margin for profitable private sector operations as well. This can be done by creating an environment which provides reasonable incentive to the private sector to operate in foodgrain market.

- Another major policy intervention required is to avoid the regional concentration in procurement of grain, something which has remained quite strong so far. Proportion of marketed surplus procured by official agencies across states vary from below 2% to more than 85%. There are states like Orissa, Bihar, Madhya Pradesh, North Eastern States etc which are food deficit at aggregate state level, but several growth pockets have emerged in these states having surplus food grains that is available for procurement. These pockets are in the first stage of green revolution and agricultural development, and the need is for private trade and market institutions to be in place to provide incentive to encourage adoption of new technology and hence output growth. Also appropriate Government procurement and storage facilities must be created in these pockets.

- Price interventions should be such as to encourage agricultural diversification to address imbalances in Indian agriculture.

- In the long run, the country needs to develop new mechanism to provide protection to farmers' income. The Government should provide support to develop viable crop insurance for protecting crop income.

- Government should consider and operate PPPs in agricultural technology development and deliveries. Examples like private sector involvement in procurement and the development of hybrid paddy seeds need to be studied and implemented.

2. Harmonize trade and tariff policies

The prime function of price and trade policies is to promote efficient allocation of resources, which helps the sector to become more competitive and in turn triggers growth. The Indian price policy is, however, trying to attain the multiple objectives of food security and equity.

The need is for trade policy reforms by getting the price right and some suggested measures for the same are as follows;

- To recommend, from time to time, in respect of different agricultural commodities, measures necessary to make the price and tariff policy effective.
- The trade policy objectives and the level of MSPs should be integrated. The Commission for Agriculture Costs and Prices (CACP) should be repositioned and emphasis should be laid not only on cost but also on issues such as tariffs, credit policies, market trends, market structure and broad macro economic policy to meet new challenges.
- The CACP should continue to monitor complementary system of trade, tariff, rural credit and marketing and related policy environment, and incorporate its recommendations in its price policy reports submitted to the Government from time to time.
- India's position on exports is highly unstable and short term, making it difficult for the people involved in trade to make decisions. This needs to be done away with and stability has to be brought in to the whole system.
- We have finite land available, but at the same time, we are competitive in some crops and not so competitive in the others. So we need to sacrifice some of our competitiveness to attain a balance in trade.
- We need to get our policies and act right so that we can acquire agricultural land abroad to meet our food requirements.

3. Market mechanism to augment supply

Agriculture marketing has remained untouched by the reforms started in the Indian economy since 1991. The marketing structure, as well as, agriculture trade remains one of the most regulated sectors of the economy. Although it is well understood that the Government has major concerns of food security and public distribution, particularly for the below the poverty line population, yet many aspects of the sector, which can play a significant role in improving the contribution of agriculture in the GDP and generate employment in rural areas, have not been considered for reforms.

An efficient agricultural marketing is essential for the development of the agriculture sector, in as much as it provides outlets and incentives for increased

production. The main objective of the proposed interventions is to remove all bottlenecks for marketing of agricultural produce and create an enabling regulatory environment.

- *Revisiting the APMC Act:* Monopolistic practices and modalities of State-controlled markets have prevented private investment in the sector. To address this issue, the Model APMC Act was formulated, which is still not amended in several key States. As of now, only 16 States have amended the Act, that too not in letter and spirit, and 3 States have partially amended the Act. The need is to understand the modalities of the APMC act legally so that it can be modified in the light of the present day scenario so as to;
  - Give farmers the freedom to sell to whoever they wish.
  - Marketing to be treated as Service Industry
  - Encourage the Private sector to set up markets in a competitive environment
  - Take perishables out of the ambit of the APMC Act.
  - APMC can come into the concurrent list even if agriculture remains a state subject
- *Upgrading Existing Market Infrastructure* by:
  - Providing basic infrastructure facilities, particularly in primary markets like Village Haats through the PPP mode
  - Encouraging commodity groups of farmers to link with industry
  - Encouraging role of commodity exchanges
  - Managing the modern regulated markets professionally and with complete transparency.
- *Repealing Essential Commodity Act:* By this, controls on movement, transportation, storage, processing and marketing will be done away with. The issue of multiplicity of taxes and levies imposed by states on the movement of goods within the country has hampered the national integration of the agricultural markets. Although a number of agricultural commodities have been taken off the ECA, the rigid rules framed under the Act continue. The ECA must be withdrawn.

- *Creating a Single Agricultural Market for Produce*

  Fragmented markets often lead to cartelization and lack of competition which leads to inefficiency. Due to fragmented markets and existing regulations, intermediaries exist at every step of the value chain, resulting into a low share of the consumer Rupee reaching the farmers.

  There is a need to develop a national level single market for agricultural goods and commodities by removing all the existing barriers to trade, multiplicity of acts, fiscal policies and marketing arrangements across the country. The single market will result in Inclusive Growth and will also expand markets by reducing transaction costs making goods and services more affordable.

- *Increasing Private Sector Investment for Marketing Infrastructure*

  Agricultural marketing requires fresh investment, particularly in post harvest activities. Trends in the Public and Private investment in agricultural marketing infrastructure in the country depict positive signs in the form of increased private investment; however, much more needs to be done.

  Private sector role so far is limited to warehouses, cold storages and pack-houses, and that too in a very small way.

  Provided that there is adequate Government support in term of conducive policy regime, minimum guarantee of returns (as is the case with other infrastructure sectors such as power and roads), and fair competition (removing monopoly of APMC Markets), the private sector can play a much bigger role in the area of agricultural marketing and infrastructure development.

Policy Interventions Suggested for Risk Management through Hedging

Agricultural revival is an important aspect of a vibrant rural economy. Risk management in agriculture ranges from informal mechanisms like avoidance of high risky crops, diversification across crops and income sources to formal mechanisms like agricultural insurance, minimum support prices and futures markets. Overcoming the limitations through productive and conclusive strategies is a step towards the burgeoning agricultural sector that India envisages.

The problem presently is not in price discovery but issues like the current agricultural market structure in India, lack of holding capacity faced by the farmers and lack of bargaining capacity.

The possible solution to these problems can be found in the Spot Commodity Exchanges where all parties - farmers, buyers, and arhatiyas - are electronically linked and certified to enable seamless transactions. For complete price efficiency, possibility of transportation is a must and this needs a supportive legal framework as well as logistics like assaying, warehousing, transportation and payments network.

A PPP model or the direct involvement of the Private Sector can dramatically change the scenario by changing the present regulatory framework.

Policy Interventions Suggested for Improved Forecasting and Decision Support Systems

A reliable prediction of rainfall is vital not only for agriculture but also for various other purposes, including irrigation, reservoir management, flood control, navigation, power generation and the like. What is actually needed is not an idea of the total quantum of rainfall in the whole country during the four-month monsoon season (June-September) but also its distribution in terms of space and time.

With these objectives, a six-point programme for using satellite data to supplement traditional sources of agricultural and rural statistics and information is proposed:

- **Timely data on Land Use Statistics (LUS)** are needed since the traditional Crop and Season Reports are generally available with a time lag of three to five years.
- **Space data should be used for checking estimates of errors of crop area and yield statistics.** While at the National-level Timely Reporting System (TRS) and National Sample Survey Organisation (NSSO) sample checks gave low errors on production, at the state level, area and yield errors can be between 5% and 12%. Space data should be another check and will give timely results.
- **Scope of Geographic mapping systems to be increased.** It should be used not only for public sector projects, as earlier in watersheds, etc., but also for cooperative, NGO and private sector projects.
- **Two-way information systems should be developed with the help of space facilities.** The farmers should not only be the source of data but should also be the recipient of technology and agro-economic data they need for agriculture in a liberalising economy. This is important for markets, technology access and medium-term weather forecasts.
- **Water resource management** is a must as water is and will be a scarce resource, so recharging water bodies, disaster management should be looked into.

- **Setting up of a small Nucleus Institute,** The centre, with experts on deputation from Indian Space Research Organization (ISRO), Central Statistical Organization (CSO), National Sample Survey Organization (NSSO), Ministry of Agriculture (MOA), Indian Meteorological Department (IMD), National Bank for Agriculture and Rural Development (NABARD), Consulting organisations, Cooperatives etc., must join hand to build new systems of man and machine working together for a restructured agricultural information system. This should ultimately involve the private sector as well.

CII can make available its resources in terms of its membership in different regions, working in different commodity sectors and trade for better information strategies

Conclusion

The CII Expert Group on Monsoon unanimously concluded that in the present day scenario the issues in agriculture are no longer restricted to a one-off indifferent monsoon or food inflation in an aberrant year, but to a larger goal of attaining food security for overcoming the emerging food shortage in the country. For this, the need is to implement the above-mentioned suggestions of the Expert Group in a planned and phased manner. The group firmly believes that the vision of attaining self-sufficiency in food and ensuring food security for all that we have set for ourselves is not unattainable; however, the only need is to apply our collective forces, from the private as well as public sectors, to facilitate transition towards this goal.

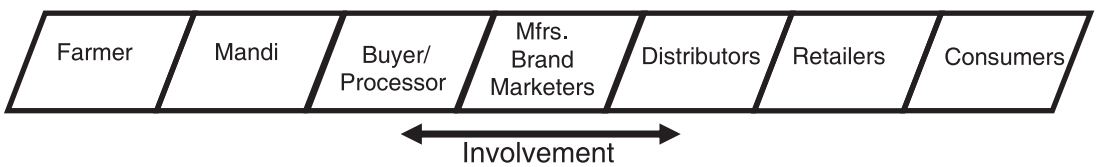
ANNEXURE I

Intensifying Public Private Partnership in Agriculture

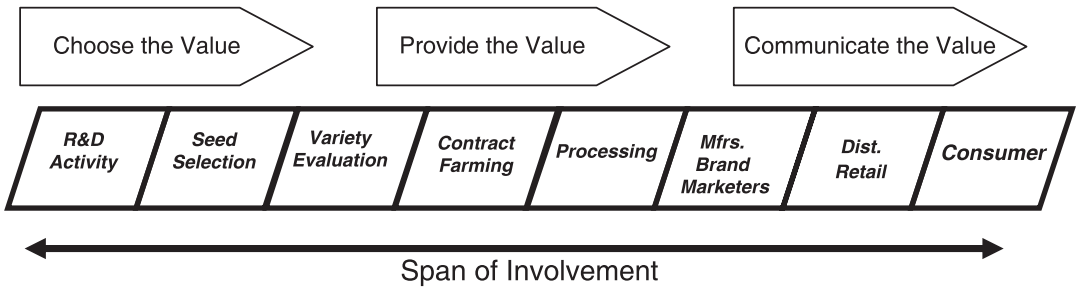
Agriculture in India operates largely in the Government domain. Given the federal nature of the Indian democracy, where agriculture is a state subject, but the funding continues to be driven from the Union Government, the interface between the Central and State Government and their agencies is of prime importance in responding to the issues challenging the sector.

Role of Central and State Systems in Agriculture

As a part of the National Agri Innovation Project of the World Bank and the Government of India, YES Bank revisited the institutional arrangements governing Centre-State relations in agriculture – legislative, executive and financial – as envisaged in the Constitution; their evolution or need for evolution over the years; and the limitations in achieving higher levels of productivity. This was also examined in the context of very positive interest and participation by the private sector and growing interest among multinational corporates.



Based on consultations, the preliminary line of thought was strengthened that unlike the green revolution, which was largely technology driven, the next revolution in agriculture is more likely to be driven by institutional reforms and strengthening governance mechanisms. This will be the foundation to success in implementing any further reform or innovation. This includes its relevance to the research, development and extensions systems that will have a wider reach and impact; and where there is need for rejuvenation in State Agriculture Universities and an increased engagement with the private sector. Given the nature of the challenges mentioned earlier, it will call for intervention with some innovative solutions.



It has been widely accepted that the private sector will be the driver of much of the innovation in the agriculture sector going forward and Public Private Partnership (PPP) approach is one of the institutional innovation mechanisms to induce greater innovation and participation. We therefore firmly believe that governance efficiencies can not only benefit a synergetic Centre and the State interface but also with the Private sector.

PPP is a useful institutional innovation technique that can enable private sector to support achievement and investment for many aspirational efficiencies, within the framework of the Government's plan. Though agricultural operations in India are essentially at the hands of the private sector (i.e., individual farmer households), it is ironical that the entry of corporate sector has been limited, and restricted mainly to the periphery, as opposed to mainstream activities. The involvement, whatsoever, of the corporate sector is largely a post–1990 development.

There has been a decline in the relevance of earlier objectives, viz. farming, farm sustainability and food security within which the involvement of the private sector was largely domiciled in the processing to distribution of the produce as illustrated below.

Today, the objective of farming has changed towards market demand and with the changing movement towards a value-added delivery system, the involvement of the private player as well as FIs have been changed more towards defining the value, providing the value and then communicating the value to the final customers. Therefore, the involvement of the private player has increased across the entire food value chain as depicted above.

This is a market-driven change and it has opened up a plethora of opportunities that can be tapped by the private sector. In light of these developments, it is being increasingly accepted that the next revolution will be an outcome of institutional and governance reforms, that will not only support efficiency between the Centre and State systems but also integrate the inevitable wider role that the private sector will play.

ANNEXURE II

Community Based Water Management: Success Stories

Case I: Tank management by DHAN foundation

Mismanagement and neglect of more than 100,000 traditional tanks in the Deccan plateau have led to the severe shortage of water. To tackle this problem Development of Humane Action Foundation (DHAN), a Madhurai based NGO has successfully initiated extensive tank regeneration programmes with active community participation.

Launched in 1992, the tank rehabilitation programme has now spread to around 150 villages, giving rise to 165 Tank Farmers Association (TFA's) in Madhurai, Theni, Thiruvalluvar, Villapuram and Ramanathapuram districts in Tamil Nadu and Chittoor district in Andhra Pradesh. Villagers have responded positively by contributing 25-50 per cent of the total cost of the projects. All construction or repair work is under taken through TFA's. These associations have executed physical work worth Rs 1 crore so far.

Case II: Balisana Village, Patan, District, Gujarat

Balisana village in the dry Patan district of Gujarat has been under the acute grip of fluoride pollution amidst drought. Almost all of the villagers early to middle aged are suffering from fluorosis or other fluoride related diseases.

Six years back, the villagers started a community drive to solve the crisis, with help from Ahemdabad-based non-governmental organisation, UTTHAN. The villagers started to desilt a 3.05 metre (m) long canal through which they diverted rainwater to a 300-year-old tank. About 82,000 cubic metre of silt has been extracted from the tank at a cost of Rs 52 lakh. About 60% of the cost came from the Government, 40% was community shramdaan (voluntary labour). A 12-km-long bund was

reconstructed to hold the diverted rainwater. Adjacent to the tank, is a 45 m deep recharge well that was fitted with an ultra-poly vinyl chloride (high density) pipe. The horizontal pipe carries water from the tank to the recharge well. Water from the well is pumped into a storage tank near the well.

A 12-year-old dead well nearby has got water now that is also free from fluoride. This water is increasingly used by villagers for drinking purposes. According to the villagers, since last 20 years groundwater extraction has been increasing, due to which the fluoride contents have creeped into the groundwater.

The woes of the villagers are not only related to drinking water but also with the crops they grow - as they are also laden with traces of fluoride. At present, they have no solution. But they hope to solve this problem by regularly recharging the groundwater table with rainwater. The villagers have evolved laws to protect the resource, like, no new tube wells will be dug and water from the well will be first used for drinking purposes and then can be used for irrigation. Balisana has inspired nearby villages, which are planning now similar works.

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Confederation of Indian Industry
Since 1895

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

CII is a non-government, not-for-profit, industry led and industry managed organisation, playing a proactive role in India's development process. Founded over 115 years ago, it is India's premier business association, with a direct membership of over 8100 organisations from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 90,000 companies from around 400 national and regional sectoral associations.

CII catalyses change by working closely with government on policy issues, enhancing efficiency, competitiveness and expanding business opportunities for industry through a range of specialised services and global linkages. It also provides a platform for sectoral consensus building and networking. Major emphasis is laid on projecting a positive image of business, assisting industry to identify and execute corporate citizenship programmes. Partnerships with over 120 NGOs across the country carry forward our initiatives in integrated and inclusive development, which include health, education, livelihood, diversity management, skill development and water, to name a few.

CII has taken up the agenda of "Business for Livelihood" for the year 2010-11. Businesses are part of civil society and creating livelihoods is the best act of corporate social responsibility. Looking ahead, the focus for 2010-11 would be on the four key Enablers for Sustainable Enterprises: Education, Employability, Innovation and Entrepreneurship. While Education and Employability help create a qualified and skilled workforce, Innovation and Entrepreneurship would drive growth and employment generation.

With 64 offices and 7 Centres of Excellence in India, and 7 overseas offices in Australia, China, France, Singapore, South Africa, UK, and USA, as well as institutional partnerships with 223 counterpart organisations in 90 countries, CII serves as a reference point for Indian industry and the international business community.

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