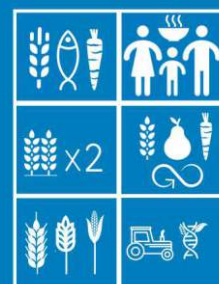




United Nations Food Systems Summit (UNFSS) 2021 and **India's Food System Policies**

2 ZERO
HUNGER



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PREFACE

The all-important United Nations Food System Summit (UNFSS) as part of the 'Decade of Action' to achieve the Sustainable Development Goals (SDGs) by 2030, is scheduled for 23rd September 2021. India will be participating too, to share the country's approach to the food system, and its commitment to ensuring the nutrition security of a growing population, challenged by climate change. With a population of 1.31 billion people, which represents a major share of the global population of 7.5 billion, India's statements at the UNFSS can be expected to gather substantial interest.

This 'Discussion Paper' has been produced to enable the Ministry of Agriculture & Farmers Welfare, Government of India in preparation for this scheduled summit. To support the summit preparation process, the UN World Food Programme-India (WFP-India), a lead agency of the UN Country Team's participation in the UNFSS, has been partnering with the NITI Aayog to prepare a summary paper of 'game changing' policies, actions, and initiatives regarding the Food System, that have been implemented by the Government of India. Following deliberations between these two organizations, I am privileged to have been entrusted this onerous task that I believe would serve the nation's interest. In appreciation of the limited time and taking advantage of a window offered by WFP, my attention went without loss of time to identifying domain experts who could bring context-relevant expertise to this task.

The universe conspired to make this assignment feasible as my search resulted in consent from four knowledgeable professionals - Prof. Pawanexh Kohli, formerly CEO, National Centre for Cold-chain (NCCD), India; Dr.Shobha Nagnur, Professor, Extension & Communication Management, and Dean, College of Community Science, UAS, Dharwad, Karnataka; Dr.Raka Saxena, Principal Scientist, Agricultural Economics, ICAR-National Institute of Agricultural Economics & Policy Research, New Delhi; and Dr.Ritambhara Singh, Associate Professor, Agribusiness, School of Agribusiness & Rural Management, Dr.Rajendra Prasad Central Agricultural University, Pusa, Samastipur, Bihar. Together, in authoring this paper, the Team brought the needed seriousness to examining India's food system and comprehend the journey covering decades, survey various government initiatives since India's independence, along with an analysis of their impact, and narrate the theme that emerged after networking all the apparently sporadic & temporally disbursed 'game changers'. Working in concert, the Team adhered to the scope of work delineated by the WFP.

It was logical for us to begin with a review of the five Action Track Synthesis Papers, which were in synch with the five objectives of the Summit. A wholesome appreciation of the Action Tracks (ATs) and the associated Summit objectives was a pre-requisite to undertaking a survey of the multiple 'game changing' policies, actions, and initiatives, made by the Govt. of India over the period since independence.

The Team began its survey with identification of all the Ministries, Departments, and Agencies of the Union Government, and then combed all their websites to compile every conceivable initiative that impacted and is impacting the agricultural system of the country. Additionally, a review of related literature was also felt necessary to capture the evolution of the food system over the decades, since

some of the past actions may not see mention in the current list of initiatives. This comprehensive survey yielded a list containing more than 320 policies, legislations, programs, schemes etc. (Annexure-II). The initiatives directly linked to the food system were then filtered, and further micro-filtered to identify those, that could be considered 'Game Changing', as defined by UNFSS. As seen in Annexure-III, this list is heavy, indicating the Government's 360-degree intervention to build a food system for the country. Given the diversity of India's agroecological regions, and the diversity of production possibilities, it is natural that the initiatives are multi-pronged.

The thoroughness of the review of these initiatives can be gauged from the various columns of the Annexures, one of which shows the specific AT(s) that is/are addressed by the associated initiative. Notwithstanding time constraints, an effort was made to recognize and include important initiatives by the state governments too, in the discussion paper.

It manifests in this discussion paper that soon after breaking free of its colonial past in 1947, India focussed on multiple aspects that challenged the food system of the country. In the context of ensuring adequate availability of food, the production segment of the agri-supply chain was the obvious initial emphasis. The ecosystem, then, was disconnected and could not truly be called a food system, as is now recognized. However, it is very clear that the government's response has always been the most optimal in the face of various resource constraints and has been demonstrably flexible in the given context. Openness to technology, domestic & global economic paradigms, and a commitment to the constitutional assurance of welfare of all the people of the country, led the policy framework that progressively moved from one platform to another, to finally arrive at a more wholesome food system in India.

In analyzing the initiatives in two distinct time-frames - 1947 to 2015, and post-2015, it emerges that there is a distinct shift from a predominantly production-led agricultural system towards a value-based food system. The vision is now sharper on addressing the triple demands in contemporary & future times. These are articulated as nutrition (not just food represented by carbohydrates) for the consumers, incomes for the farmer producers including other food system workers, and sustainability of the ecology. Evaluated against this scale and diversity of this sub-continental region, India's food system can be said to be on a positive track. On the path to fulfilling its commitment to achieving the Sustainable Development Goals, 2030, the country remains open to the adoption of better practices from others, even as its journey presented a plethora of learnings that India can share with other countries.

The process of this work was an opportunity to contribute as well as learn. The authors benefitted from the inputs and expectations set out by Dr. Ramesh Chand, Member, NITI Aayog, Govt. of India, and Mr. Bishow Parajuli, Country Director, WFP. The Team also recognizes the constant support provided by Dr. Shruti, WFP, and conveys its gratitude to UN WFP for trusting it with this important responsibility, and proffering advice from time to time.

Dated: 16th September 2021
New Delhi

(Ashok Dalwai)



FOREWORD

This paper, prepared in the wake of the U.N. Food System Summit 2021, provides chronological as well as strategic insights into India's journey from a food starved and import-dependent country to a food surplus, and now a net exporter. This information was scattered and available for different periods. The paper knit together important policy and development initiatives taken since 1962. Besides serving as a reference resource for researchers, students, media writers, policymakers, and civil society groups, the paper offers important lessons from various policy and development initiatives to craft and suggest a way forward as we moved towards the pioneering Food Systems Summit 2021 in September.

In terms of larger goals, the food system transformation is considered essential in achieving the sustainable development agenda 2030. This makes strong sense as 11 Sustainable Development Goals (SDGs) out of 17 are directly related to the performance of food systems.

The summit involved several activities before the run-up to the meeting of the Head of States on September 23. While the dialogues on the five tracks identified have been underway for the past 18 months, the world has seen the fragility and vulnerability of food systems, highlighted by the disruptive impact of the COVID-19 pandemic that is projected to double the global hunger figure.

Global food systems — the networks that are needed to produce and transform food, and ensure it reaches consumers or the paths that food travels from production to plate — are in a state of crisis in many countries affecting the poor and the vulnerable. The flaws in food systems affect us all, but most of all they are affecting 811 million people in the world who go to bed hungry each night.

The summit created a mechanism for serious debates involving UN member states, civil society, non-governmental organisations, academics, researchers, individuals, and the private sector, which is to evolve transformative themes and ideas for reimagining food systems to enhance satisfaction of all stakeholders including future generations. The debate and response focused on five identified action tracks namely: Ensure access to safe and nutritious food for all; Shift to sustainable consumption patterns; Boost nature-positive production; Advance equitable livelihoods, and Build resilience to vulnerabilities, shocks, and stress.

The summit provided a historic opportunity to empower all people to leverage the power of food systems to drive our recovery from the COVID-19 pandemic and get us back on track to achieve all 17 SDGs by 2030.

The Statement of Action emerging from the summit offers a concise set of ambitious, high-level principles and areas for action to support the global call to “Build back better” after the COVID-19 pandemic.

There are lessons from India's tryst with food insecurity that are very well captured in this paper. Several themes that have emerged in the discussions and dialogues leading up to the summit find resonance

with India's past and ongoing journey towards creating and improving food and livelihood security. The long journey from chronic food shortage to surplus food producer offers several interesting lessons for other developing countries in Asia, Africa, and Latin America in the area of land reforms, public investments, institutional infrastructure, new regulatory systems, public support, and intervention in Agri markets and prices and Agri research and extension.

The discussion paper also makes recommendations for the way forward and a number of these are aligned with the spirit of the statement made by UN Secretary-General António Guterres to find solutions and 'catalyse momentum' to transform the way the world produces, consumes, and thinks about food and help address rising hunger.

I congratulate the team of authors led by Dr Ashok Dalwai for an authoritative account of India's journey from a food basket case to a food surplus nation and various other achievements in the agri-food sector. I appreciate UN / WFP for its leadership in supporting and coordinating the preparation of the paper to provide input for the U. N. Food System Summit dialogue.

Prof. Ramesh Chand
Member, NITI Aayog



MESSAGE

“Before you finish eating breakfast in the morning, you've depended on more than half of the world.” - Martin Luther King, Jr.

This quote marks the culminating statement by United Nations Secretary-General António Guterres on the United Nations Food Systems Summit (UNFSS) that took place on 23 September 2021 in New York. It underlines the fundamental connection we have with food and how it is the basis of connecting the entire humanity and its aspiration for a just and equal world.

The fact that up to 811 million people are chronically hungry across the world suggests that food systems – the networks that are needed to produce and transform food and ensure that it reaches consumers – are not meeting the needs of large sections of society.

The Summit has concluded with people around the world coming together to reaffirm that people, planet, and prosperity are at the heart of the 2030 Agenda. Particularly, in the wake of the impacts of COVID-19, transformative action through food systems can play an essential role in driving the global recovery.

The discussion paper, “‘Game changing’ policies, actions & initiatives of the Government of India that impacted the country's Food System”, could not have come at a more opportune time as the role of inclusive and transformative food systems in nourishing the progress towards Zero Hunger was unequivocally highlighted at the Summit and its vibrant deliberations.

The paper provides strategic insights that underline India's incredible journey from a ship-to-mouth situation concerning food to institutionalizing 'Right to Food' and establishing itself among limited net exporters of food, ranking very high in most production measures.

The discussion paper provides not just a chronology of India's transformation but also several game-changing ideas that have huge importance and relevance for the reimagining of food systems that are currently underway. The paper also sheds light on the aspects of equity and inclusion.

I am confident that this discussion will achieve its primary objective of sparking conversations to address the persistent challenge of nutrition while safeguarding food security and livelihoods and creating a sustainable food system for now and the future.

I want to especially thank Dr. Dalwai for his leadership for the paper, together with researchers for the paper, and commend the leadership and vision of Prof. Ramesh Chand, Member Secretary, Niti Aayog for his excellent steering of the Food System Dialogue process in India. I am humbled to join the process and be a party to the process together with my FAO and IFAD Representatives colleagues in India.

Bishow Parajuli

India Representative and Country Director

Introduction



WFP/Parvinder Singh

The Food System is defined as "the complex web of activities involving the production, processing, transport, and consumption of food." The five themes that the United Nation's Food Systems Summit (UNFSS) is to discuss in September 2021 are summed up as follows-

1. Ensure Access to Safe and Nutritious Food for All - to achieve zero hunger, higher nutrition, and higher food safety
2. Shift to Sustainable and Healthy Consumption Patterns - to have safe, sustainable, and healthy food environs, to improve demand and experience for healthy food, and reduce food waste at the level of households, food services, and retail
3. Boost Nature-Positive Production - to protect natural ecosystems, sustainably manage existing food production, and restore and rehabilitate degraded ecosystems
4. Advance Equitable Livelihoods - improve status and returns of the workforce food system -

farmers, waged agri-workers, fisherfolk, pastoralists, food processing/ manufacturing workers, transport/distribution workers, shop and market workers, and food preparers/servers

5. Build Resilience to Vulnerabilities, Shocks & Stress - provide universal access to climate justice and ensure resilient development, strengthen small holders to mitigate risks, reduce food loss in the supply chain, risk-proof food system infrastructure, and manage agroecology and water-energy-food nexus sustainably

The food system does not mean all of the agricultural value chains, though it is inherently linked with agricultural activities and the allied food distribution chain. This discussion paper narrows on India's progress in achieving the above aspects in food production, distribution and consumption, and other activities that relate to the food system.

The United Nations Food System Summit (UNFSS) aims to document and discuss food-related initiatives taken across the world, disseminate and develop a more systemic and standardised approach for greater equitability in nutritional security, sustainability, and dependability of the Food System worldwide.

UNFSS Outcomes

- **Document significant initiatives and measurable progress** towards the 2030 Agenda for Sustainable Development. The Summit will succeed in identifying solutions and recognizing leaders, and issuing a call for action at all levels of the food system, including national and local governments, companies, and citizens.
- **Raise awareness and intensify public discussion** about how our diversifying and reforming agri-food systems can help us all to achieve the SDGs by implementing reforms that are good for people and the planet.
- **Develop principles to guide governments and other stakeholders** looking to leverage their agri-food systems to support the SDGs. These principles will set an optimistic and encouraging vision in which food systems play a central role in building a fairer, more sustainable world.
- **Create a system of follow-up and review** to ensure that the Summit's outcomes continue to drive new actions and progress. This system will allow for sharing of experiences, best practices, and knowledge.

Indian Context

On achieving independence in 1947, the Union of India had to address the fundamental issues relating to the basic food system. The erstwhile commercial thrust by the previous colonial regime to produce and supply non-food crops, primarily cotton, to British mills, had weakened food production in a few regions. The feudal agricultural ecosystem combined with a non-supportive production environment had resulted in debilitating food insecurity. Production had to be perforce prioritised – food security was thus accorded the highest priority. This journey of India began with the **“Grow More Food Campaign” in the year 1947.**

Today, 75 years hence, India is no longer fed 'ship-to-mouth' and instead is among the few net exporters of food, ranking very high in most production measures, and is one of the few countries in the world where a citizen's right to food has legal entitlement with the parliamentary enactment of **“The National Food Security Act, 2013”**. The interlude witnessed various game-changing interventions to suit the need of the hour and the available knowledge-base and capacities at hand.

The decades beginning the new millennium have erased fears of production deficit, causing policy concerns around the efficient distribution of surpluses, nutrition of the consumers, efficient translation of production into market supply, including the linked issues of food loss and waste, the welfare of the food producers implying the need to ensure higher real-term market returns, risk management, sustainability, and resource-use efficiency. Along this path, regular reviews of past actions and suitable course corrections were needed. Some interventions that were once a game-changer, need not remain relevant when circumstances change, even if they come to be perceived as the norm. To deal with such vestiges of past policies, another set of game-changing decisions were necessitated, so that progress would not stagnate along with patterns of linear focus, but could adopt a systems approach, and

introduce an agenda of holistic development based on a dynamic policy paradigm.

Based on the premise that today's progressive measure can emerge as regressive in the new environment of the future, this discussion paper highlights many of the past game-changing policies, actions, and initiatives, that have constantly evolved into a new framework to secure India's Food System over the years. The gathering pace of new policies since 2015 has imparted greater sharpness to the food systems approach, paving the way for relevance beyond 2030, towards an even more equitable, egalitarian, sustainable, and gainful future.

In recognition of the diversity of India's agroecology and the attendant production systems, as also the consumption & cultural patterns, there have been multiple initiatives, and all these have been rolled out and managed not by one Ministry, but several. The governance

complexity needs to be further appreciated against the constitutional provision vide Article 246, which demarcates the jurisdiction over agriculture to the states (Schedule VII, List II - State List), while the Union also enjoys the authority in several aspects of agriculture and associated subjects (Schedule VII, List - I Union List & List III – Concurrent List). A broad survey of the Central Government's initiatives as of now yielded over 320 agriculture-centric initiatives encompassing both food- and non-food-related activities (**Annexure-II**). This discussion paper narrows down the deliberations to tightly delineated and just a handful of **"game-changers"** defined in terms of their impact, actionability, and sustainability, influencing India's approach to transforming its food system (**Annexure-III**). The narrative presents such interventions along with sequential timelines, and where relevant, with related reconsiderations implying some amount of up & down movement.

The context is aligned with the themes and proposals synthesized in the five Action Track (Ats) papers under the aegis of the UNFSS.

One of the objectives of this short discussion paper is to share India's course of actions that evolved over definitive phases and brought in a more comprehensive food system and facilitate other countries at various stages of development to replicate some of these as appropriate to their context. Corrective changes are also informed which may aid fast-tracking of interventions and engender local and global partnerships, besides elevating public discussion for greater awareness, step forward, scale up and promote system-based monitoring.

Early Game Changers

The key interventions initiated by the Government of India after independence and until 2015 are discussed in this section.



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Ecosystem and Institutions

At independence, the country was highly food insecure on account of low productivity that resulted from the total absence of incentives for the farmers to invest in agriculture. Apart from the poor status of infrastructure, including irrigation, road connectivity, and power, technology was archaic and, more importantly, the cultivators were largely bonded to large landlords and suffered a disadvantageous power structure that controlled agricultural land and markets. Shortly after, the Indian Government enacted the **Zamindari Abolition Act (1950)** and disrupted the feudal agricultural structure in the country. This was followed by a series of **Land Reforms Acts** that placed a ceiling on the extent of land a person could own, and this combined with the distribution of surplus land, government wasteland and the **Bhoodan Movement of Vinoba Bhave** created a more egalitarian land ownership pattern. This was the first necessary

condition to enable near 70 percent of India's population, then dependent on agriculture, to focus on their primary asset for generating food.

Coupled with the abolishment of begari (bonded labour) and financial support for their rehabilitation and land development, the backdrop was set for individual cultivators to farm the produce of their own choice. With the incentive to invest their labour and limited capital, and freedom to cultivate the crops of their choice, the needed focus on food production was facilitated. **This was one of the first game-changers as it drastically transformed power relations to provide an enabling environment for the under-represented to have and exercise their rights.** Besides improving the livelihood status of the hitherto bonded cultivators, with assured land title and rights, they could now not only invest better for higher productivity but also diversify with a higher level

of confidence into livestock rearing to diversify the food output.

Even before independence, the beginnings of the Cooperatives had been made, mostly in response to the farmers' protests against usurious money lenders. Rudiments of cooperative marketing and credit structures apart from production cooperatives were in existence. Post-independence, the role of cooperatives underwent a radical change. It was in this context that the Rural Credit Survey Committee was appointed in 1951. The Resolution of the National Development Council (NDC) in 1958 saw the rejection of the old large-sized credit society and the emergence of small-sized '**Service Cooperatives**'. The Agricultural Service Cooperatives play an important role in the disbursement of agricultural credit. The Primary Agricultural Cooperative Credit Societies (**PACCS**) constitute the base, and these federate into District Central Cooperative Bank (DCCB) at the district level and Apex Bank at the state level. This cooperative structure continues to act as an important provider of credit lines to the farmers even when other financial institutions have gained strength in rural India.

To address the food system comprehensively, a market system that could assure millions of small and marginal farmers a fair price through a transparent system of transactions and price discovery was also required. The mid-1950s saw the launch of Agriculture Produce Marketing Regulations with various state governments enacting the **Agricultural Produce Market Committee (APMC) Act** to implement what today has resulted in a network of 2,560 Principal Market Yards (PMYs) defined by notification of certain geography (APMCs) and 4,393 Sub-Market yards (SMYs) regulated by the respective APMCs, together counting to 6,953. All these are Primary Wholesale Agricultural Markets run by Farmers' Committees. For ease of governance, the notified farming areas were assigned under the jurisdiction of the APMCs, which could plough back funds into developing the market zones under their care. These APMC markets served as

assembly points for farmers and licensed traders, where farm produce underwent a competitive auctioning process. The farmers could benefit from this price discovery mechanism, and as the transactions were conducted within these market premises, they could be easily regulated and monitored. Given the preceding context of the dominance of village traders and the absence of an organized marketing structure, this was a game-changer initiative in the post-harvest domain. This was necessary to serve as a conduit for the marketable surpluses to enter the distribution channel and meet the needs of the consumers, including those in the urban who were not producers.

The decades of 1950s & 1960s were a period of uncertain times for the supply of various commodities, including foodstuffs, where opportunistic speculators could manipulate consumer prices by hoarding stock to aggravate a prevailing supply shortfall. Hence, the **Essential Commodities Act (ECA), 1955**, was passed, which allowed the Government to control and regulate the supply chain (production, storage, transportation & distribution), as also regulate the prices of commodities. This was done to curtail any tendency to buy low and hoard for later onward transaction, and thereby ensure a steadier state of supply of essential goods, including foodstuffs, to consumers.

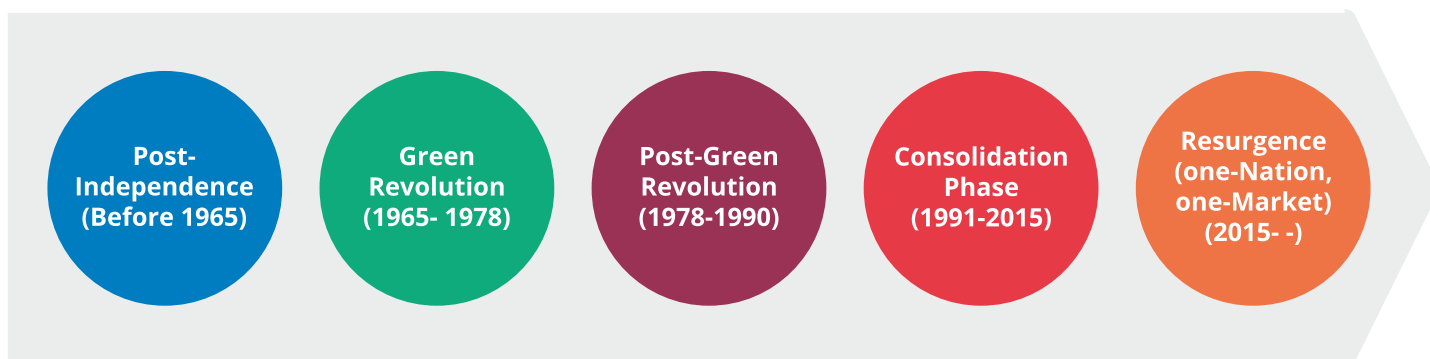
These two Acts, APMC and ECA, were game-changers at that time from the perspective of the country's food system. Since the country's food supply was in deficit to demand and the majority of the production could be easily and readily absorbed within the market area notified under the APMC Act, the APMC market network supported by the EC Act could facilitate the food supply chain. However, progressive growth in production riding on the back of new technology would demand amendments in the future to meet the price demands of the farmer-producers, who should be incentivized to produce more to meet the requirements of India's growing population. These incentives are discussed later in this paper as another set of game-changing interventions.

For a game-changing impact in support of smallholder farmers, the Government also enacted the National Cooperative Development Corporation (NCDC) Act, 1962. This initiative resulted in bringing institutional focus on supporting and developing cooperatives, and a statutory corporation was created, which is still regarded as a key enabler of the cooperative sector. This period also saw the Government of India enact the Warehousing Corporation Act, 1962, and the Cold Storage Order, 1964, so that the post-production storage aspects of the food chain could also be taken up as a thrust area. Earlier, in 1958, the National Agricultural Cooperative Marketing Federation of India (NAFED) had been constituted to promote and develop marketing, processing, and storage of produce, besides undertaking wholesale or retail trade as required.

To encourage production, the post-independence period also saw a few other major interventions that included large-scale public investment in the

irrigation sector (to build dams, canals, tube wells, etc.), power, and communication. This was a period when **public sector investments in agriculture grew steadily and empowered the larger agricultural sector, and thereby the food systems**. Meanwhile, for a much-needed rapid breakthrough in food production, the government identified specially endowed areas and farmer categories needing special attention. A more focused & strategized agricultural extension system was necessary to transfer technology and concomitant support to the farmers. A series of such initiatives came to be rolled out over the next two decades. These included Community Development Blocks in 1952, National Extension Service Blocks in 1953, Intensive Agricultural District Programme (IADP) in 1961 and Intensive Agriculture Area Programme (IAAP) in 1964-65. This finally culminated in the well-known Green Revolution technology during 1965-67. The Krishi Vigyan Kendras (Farm Science Centres) came up in 1974 to provide technical backup to the farmers in the later period.

Figure 1: India's Food and Agricultural Development Phases



The post-independence phase saw the initial restructuring and organising of the food production systems –both crops & animal husbandry – along with more equitable lines. Hundreds of millions of cultivators came to benefit from access to agricultural land, while a mechanism to protect producers from existing market monopolies was rolled out. With the establishment of the agricultural market network that regulated and managed the distribution of commodities, steps were also taken to ensure that the consumers are not artificially denied access to essential food items. These initial policies set the framework to revamp the production, postproduction and livelihood status of food producers. They positioned India and her farmers to quickly step into the next phase of game-changing actions, which has come to be recognised as the Green Revolution.

Supporting Production

The pre-Green Revolution (pre-GR) policy initiatives fostered a positive growth in food production. Yet, the country faced a major shortage of foodgrains and a regional imbalance in growth, primarily benefitting the well-endowed and irrigated areas. The crisis resulted in the signing of PL 480 by India, under which US food imports became critical for domestic food security. Thus was born the situation for initiation of GR technology based on short duration and dwarf varieties of wheat developed by Norman Borlaug, which were high yielders in response to intensive use of fertilizers & water. The Multiple Cropping Programme (MCP) was launched in 1967-68 and dovetailed with the High Yielding Variety Program (HYVP) to take advantage of short duration varieties in areas with limited irrigation

facilities. To incentivize continued growth in the production of staple foodgrains, multiple statutory bodies were strengthened or founded in this period, including the **Agriculture Prices Commission (APC), the Food Corporation of India (FCI) in 1965, and the Central Warehousing Corporation (CWC), and so was network of multiple State Agricultural Universities.** The Food Corporation of India (FCI) came to be tasked with public procurement of food-grains and is to date, counted among the largest corporations in the country. It purchases a cumulative average of 33 percent of the country's wheat and rice output from farmers every year, at prices notified as Minimum Support Prices (MSP) by the Government.

In the first weeks after independence, India named the Ministry of Food on 29 August 1947. In February 1951, it was combined with the Ministry of Agriculture to constitute the Ministry of Food & Agriculture. Various iterations followed and currently India has the Ministry of Agriculture & Farmers Welfare, the Ministry of Cooperation, the Ministry of Fisheries, Dairying & Animal Husbandry, the Ministry of Consumer Affairs, Food and Public Distribution, and the Ministry of Food Processing Industries, all of which are front-line agencies related to food. However, the food system also interacts closely with other ministries, including the ones related to rural development, education, health & family welfare, women & child development, tribal welfare, water resources, transport, skill development, environment, forestry and climate change, power, and others. Numerous specific and important initiatives were taken up by these various ministries and departments, and agencies under them, a quick review of which indicated that more than 320 are in operation as of today. This must be seen in juxtaposition to several state-specific initiatives as their stand-alone or supplementary to central initiatives.

The government's price support to the farmers comes through Minimum Support Price (MSP) and procurement operations. **Commencing in 1966-67**, the Government notified two types of prices, namely, **(i) Minimum Support Price (MSP); and (ii) Procurement Price (PP).** While MSP was intended to serve as a floor price and also an assurance to farmers against market fluctuations, the Procurement Price was deployed to undertake purchase by public agencies. Normally, the procurement price was higher than the MSP but lower than the open market price. This provided

the farmer with the choice to avail the price either in an open market or sell to public agencies. This MSP and PP system bolstered the GR technology, encouraging the farmers to invest in farming. And supported by both State Agriculture University (SAU) and state-led extension services, there was a consolidation of foodgrains output, and India became self-sufficient by 1971. Subsequently, around 1971, MSP itself came to be considered the Procurement Price, a practice that holds good to this day. It is now perceived as the benchmark price.

The APC was restructured as the Commission on Agricultural Costs and Prices (CACP) in the latter years, which currently recommends MSP for 23 crops (14 Kharif+7 Rabi+2 calendar year crops), of which 21 are food commodities, comprising 7 kinds of cereal (paddy, wheat, maize, sorghum, pearl millet, barley and ragi), 5 pulses (gram, tur, moong, urad, lentil), 7 oilseeds (groundnut, rapeseed-mustard, soyabean, sesamum, sunflower, safflower and niger seed), and 4 commercial crops (copra, sugarcane, cotton and raw jute) every year before the respective production season. This pre-season notification serves as a price signal to the farmers, letting them use this for an informed production decision. The CACP recommendation that forms the basis for the government to notify the MSP took a pro-farmer step forward with the government's acceptance of a minimum of 50 percent of the cost of production as the margin of profit in the year 2018.

As secure land tenure, new technology and more organized markets resulted in the production of agricultural produce, including food grains, beyond the family sustenance needs, and the rural economy experienced growth triggers, needing organised access to basic financial and banking services. The finances, by way of crop production loans that were available to the farmers via the cooperative credit structure and the nationalised commercial banks (from 1970), now needed to be broad-based to meet non-farm rural activities and integrate them with the economic mainstream of the country. This gap was sought to be bridged in 1975 by the Government, establishing the first set of five Regional Rural Banks (RRBs). **In 1976, the RRB Act was passed to strengthen this initiative and today the country has 43 RRBs to supplement banking and credit facilities for agriculture and other rural**

sector activities. The ownership structure of the RRBs is divided among three principal actors: Central Government (50percent), State Government (15percent), and sponsoring Nationalised Banks (15percent).

The next leap forward in the food system financing happened in **1982 when the National Bank for Agriculture & Rural Development (NABARD), established** under the Ministry of Finance, was entrusted with matters concerning policy, planning and operations, in the field of credit for agriculture, and other economic activities in rural areas of India. NABARD replaced three erstwhile agencies in this field and today it is one of the premier agencies that work with other global developmental organizations in the field of agriculture, and rural development. It serves as the apex financing agency for institutions that provide investment and production credit for developing rural areas. To direct a certain minimum threshold level of finance into agriculture and allied sectors, the Government of India accorded these a special dispensation that requires all commercial banks to assign a specific portion of their total volume of lending, as **Priority Sector Lending (PSL).** The latest RBI Guidelines stipulate that within the 18 percent target outlined for agriculture, eight percent of Adjusted Net Bank Credit (ANBC) or credit equivalent of off-balance sheet exposure is to be prescribed for small and marginal farmers.



WFP/Parvinder Singh

The Government's procurement mechanism for basic food commodities greatly incentivized the output and led to the country becoming food secure and imparted the ability to build strategic food buffers. Reforms and initiatives in the banking system eased the availability of credit to the food system. Besides ensuring the geographic spread of agriculture research centre, the country also developed an extensive education and extension system.. Laying appropriate emphasis on financial inclusion, the Government of India set forth the long-term facilitation mechanism for the key stakeholders of the food system, not only to ease their access to credit to support basic operations but also for modernization and diversification.

The period from 1991 to 2015 was when past lessons were consolidated and emerging technologies, and knowledge got assimilated. This period also saw the diversification of agriculture beyond agronomic crops and brought greater focus to horticulture, dairy, and animal husbandry sectors. The lessons encompassed elements of nutritional health, food safety & standards, sustainability, deployment of space technology and the like. In this period, some notable actions were taken to address policy anomalies in light of the new knowledge and changed circumstances. Further, in sharp contrast to the industrial and financial sectors that had seen several reforms under the 1991 liberalization policy of the Indian economy, it was realized by the 2000s that the agriculture sector had continued to be regulated and was ripe for the introduction of market forces. **Thus, some liberalization was initiated in this direction**, which included the repeal of the Cold Storage Order of 1964 in 1997, in acknowledgment that it was constraining future development, and sharing of a Model APMC Act with the state governments in 2003 that provided for setting up private APMCs alongside the cooperatives, contract farming, etc. Most states respected these provisions of market reforms by amending their State Acts. This was only the beginning and major changes were to come only much later. **Another initiative was the passing of the Food Safety and Standards Act, 2006, which led to the creation of the apex Food Safety & Standards Authority of India (FSSAI) under the Ministry of Health & Family Welfare.**

The earlier initiatives to focus on poorly endowed and climatically vulnerable regions of the country were all taken at the beginning of the 1970s.

These programs were Drought Prone Area Programme (**DPAP**), Desert Area Development Programme (**DDP**), and Small Farmers Development Agency (**SFDA**). They aimed at achieving higher productivity and offering greater support to the small and marginal farmers, as these areas had been bypassed by the input-intensive GR technology. The decade of the 1990s saw the area approach to agricultural development with the adoption of the Integrated Wasteland Development Programme (**IWDP**) for both forest areas (by the Ministry of Forests) and non-forest areas (by the Ministry of Rural Development). While both these programs adopted the watershed approach to land treatment, the National Watershed Development Programme in Rainfed Areas (**NWDPRA**) sought to focus on vast tracts of the rainfed system of agriculture, where yields were still low.

These interventions strengthened food production at the local level across differently endowed regions, and consolidated food availability at the national level, enabling a more sustained food distribution system. In the new millennium, the National Rainfed Area Authority (**NRAA**) was established in 2006 to bring convergence within and among agricultural and wasteland development programs, covering all aspects of sustainable and holistic development and livelihood systems approaches in rainfed areas. With this, the need for sharper policies for rainfed agricultural systems and a landscapebased approach for natural resource conservation came to be emphasized.

India achieved basic food security by 1971, with high yielding variety seeds of the GR technology

resulting in a big jump in wheat output, even if confined chiefly to irrigated regions. Parallely by 1970, the milk sector was undergoing a revolution too, and this came to be structured for wider reach under **Operation Flood-I in January 1970**. This was followed by **Operation Flood-II (1981-85) and Operation Flood-III (1985-96)**. The result, called the **White Revolution**, emanated from a highly successful dairy cooperative movement, initiated in 1946 that had taken firm and progressive steps from 1949.

The Gujarat initiative was catapulted to the national level by the establishment of the National Dairy Development Board (NDDB) in the year 1965, to promote, finance, organize, and support producer-owned, and controlled organizations. This has helped the country surpass and maintain the mantle as the world's largest producer of milk, ever since 1997. By the close of 2020, NDDB reported a network of 194,000 dairy cooperative societies with a cumulative membership of 17.22 million milk producers. Of these, a substantive number of societies are 'Women Only' cooperatives. These are associated with milk pooling points at the village level and the subsequent supply chain of milk. In the 1990s, the private sector was also permitted to enter the milk sector. Up from 150 million tonnes in 2015-16, in 2019-20, India produced about 198 million tonnes of milk, positively impacting the protein needs of a country with a predominantly vegetarian diet. The per capita per day availability of milk went up to 407 gms. by 2020-21.

In addition to the more popular Green & White revolutions, there have been a few other initiatives, also clubbed and labelled as revolutions and categorised colourfully. These include the **Pink, Blue, Yellow, and Golden revolutions**.

The Pink Revolution was initiated in the late 1970s when various schemes and programs were introduced to impart technological support to the meat and poultry sectors. Increasing the production of prawns was also one of the focus areas. As a result, in 2014, India surpassed Australia and Brazil for the first time to become

the world's largest exporter of bovine meat. Prawn became the primary export under fisheries. **The focus on fisheries** was expanded and further emphasised in the mid-1980s, bringing the **Blue Revolution to aquaculture, inland, and marine fish sources**. This involved various interventions by government agencies to ease and improve access to technologies, credit, inputs, and markets, which collectively boosted the productivity of the fisheries sector. The resulting impact is India gaining a position among the top five fish producers, making the fisheries sector the highest export earner among agricultural export commodities now. In 2018-19, the fish production stood at 13.3 million tonnes against the earlier 10.8 million tonnes in 2015-16. Egg production was another area that was given due attention and has grown by leaps to generate 114.38 billion pieces of eggs in the year 2019-20. India ranks third in egg production, globally. This sector has largely been driven by the private sector that adopted the contract model under which the farmer-producers were supported with technology, including the chicks (layers/broilers) and assured marketing.

The **Yellow Revolution** can be said to have rolled out in 1986 and sought the direction of institutional support for oilseed production (mainly, mustard & sunflower) under the **National Oilseeds Mission**. The key intervention components were thrust on production technology, area expansion, and policy support for market intervention. This saw the volume of production increasing from 11 million tonnes of oilseeds in 1986-87 to a level where India became near-self-sufficient around 1993-94. For some reason, this momentum was lost in the subsequent years and came to draw attention, once again, as a deficit sector after 2015. The initiatives in this context will be discussed later.

The **year 1986** was also when the Agricultural and Processed Food Products Export Development Authority (**APEDA**) was established by the Government of India, under its then Ministry of Commerce, to support market expansion into

export destinations. And to modernize agricultural warehouses, the **Warehousing Act, 2007**, was enacted, and the Warehousing Development Regulatory Authority (WDRA) came into existence.

On the critical aspect of credit as an input, the issue of fair access of institutional credit to the farmers took a progressive shape in **1998, with the introduction of the Kisan Credit Card (KCC)**. This was to provide credit to farmers based on their holdings and for uniform adoption by the banks, for purchase of agricultural inputs such as seeds, fertilizers, pesticides, etc., and to draw cash for their production needs. The scheme was extended to cover other **investment credit** requirements of farmers viz. allied and non-farm activities in the year **2004**. The scheme provides farmers with short-term credit and crop loans at a reduced interest rate, which goes with an

additional interest subvention for timely repayments. Participating financial institutions include regional rural banks, all commercial banks, and state cooperative banks. The loans can be availed free of collateral up to a specified amount and the quantum of the loan in the first year is assessed based on the cost of cultivation, post-harvest expenses, and farm maintenance costs. The credit is like a revolving cash account and the credit balance in the account earns interest at the savings bank rate. The interest subvention-based institutional credit system stands validated with the steady increase in the annual volume. It has grown from Rs.8.5 lakh crores in 2014-15 to Rs.16.50 lakh crores in the Budget 2021-22. Further, the farmers having KCC credit and below 70 years of age, are also covered by personal accidental insurance for permanent disability, death, and other risks.

Much of the aforesaid initiatives were rooted in fears of past food insecurity and were focused on enhancing productivity and production. When production gains were visible, especially in high-value foods, the general mantra was to target better-priced export markets. India's food system was primarily focused on production, and high-value production was export-oriented.

Adapting to Demand

By the 1990s, the domestic consumer was getting increasingly more aware of his nutritional intake, and consequently, the focus began to shift towards the **domestic availability of fruits and vegetables**. Though the Government had established the **National Horticulture Board in 1984**, the diversification into horticulture got a major fillip in the late 1990s. The majority of horticultural crops are perishable by nature and require cold-chain as a logistics conduit to markets. It was increasingly clear that without suitable cold chains, the gains in-field productivity and production of perishable fruits and vegetables were taking a wasteful turn. This was when the erstwhile Cold Storage Order (1964), originally intended to support farmers, was viewed as limiting new investments in the refrigerated logistics chain. In 1997, its repeal initiated a change for the better, in the scope and scale of future cold-chain development.

Seeing the rising demand for fruits and vegetables, two mission-mode programs were initiated, with the first one in 2001 to direct attention on developing horticulture initially in the North-eastern States, and subsequently, in all the Himalayan States (**HMNEH**). This was not found sufficient, and therefore, in **2005-06**, a more empowered **National Horticulture Mission (NHM)** was launched to promote the development of horticulture in all suitably endowed regions in the country as well as the associated cold-chain system. **The NHM led the Golden Revolution** that witnessed a rapid scaling up of demand and production of a wide variety of horticultural crops. The production year 2013-14 culminated with India's horticulture sector registering a total output of 277.35 million tonnes to surpass that of foodgrain production at 265.05 million tonnes for the first time, only to gain the increasing lead in the years ahead. Notably, the annual State of

Indian Agriculture 2012-13 report indicates that the horticulture output of 257 million tonnes for the said year came from 23.2 million hectares and utilized only one percent of irrigated area. From 2006-07 to 2011-12, the average productivity per hectare for fruits increased by 14.5 percent and of vegetables by 6.5 percent, pushing up the per capita availability of fruits and vegetables by 23 percent.

An increasingly affluent India continued to demand more fresh fruits, vegetables, eggs, and milk. Various studies projected a continued trend and compared to others, with a multi-fold increase in demand for these three food items (that can meet the much-needed micro-nutrients) in the coming decades (Table 1). Observing such trends, in 2014, the Government of India subsumed all its varied initiatives for horticulture development into one national-level holistic intervention and named it the “**Mission for Integrated Development of**

Horticulture (MIDH)”. Two years earlier, it also approved setting up a Public-Private Partnership (PPP) think-tank called the National Centre for Cold-chain Development (NCCD), primarily to help restructure its policies and programs to develop, and modernize the cold-chain. NCCD adopted a systems approach to cold-chain development and multiple changes in the existing support mechanism were commenced. Proving to be the most strategic decision, it helped to rationalize and allocate resources, such that horticultural production growth targets got linked with the associated development of logistics connectivity for perishables. This combined with other strategic support has checked food loss in perishables, though much more needs to be done in this regard. **These initiatives signalled a definitive shift from a carbohydrate-centric to a balanced nutrition-centric approach to India’s food system.**

Table 1: Projected Demand (million tonnes)

S.N.	Food Category	2030*	2050**
1	Cereals	284	359
2	Pulses	26.6	46
3	Edible Oils	21.3	39
4	Vegetables	192	342
5	Fruits	103	305
6	Milk	170	401
7	Sugar	39.2	58
8	Meat	9.2	14
9	Egg	5.8	10
10	Fish	11.1	22

Source: *Kumar et al. (2016) for projected demand in 2030
 **NCAP Vision 2050 for projected demand in 2050

Today, India has the world’s highest capacity in refrigerated warehousing (approx. 160 million cubic metres) and is targeting a rapid scale up of the associated network of aggregation hubs at the first mile, transport and distribution system. These economic activities are being promoted in the hands of the private sector, farmer groups, including cooperatives, and individual entrepreneurs. Growth in horticulture output also continues with production touching a record 320 million tonnes in 2019-20 and 329.40 million tonnes in 2020-21 (2nd Advance Estimates).

In just the following 2 years, between 2014 and 2016, under MIDH alone, more than 2 million tonnes capacity in 400 cold stores, 70 integrated packhouses, 175 fruit ripening units, 50 reefer transport, and 25 temperature-controlled retail outlets were installed. At the same time, under this scheme, an additional extent of 73,400 hectares under protected cultivation and 1360 numbers of accredited nurseries were developed. This is besides expanding the open field area under horticulture by 353,600 hectares and rejuvenating 66,130 hectares of fruit trees. Other works include support for horticulture mechanization, new water resources, capacity building, skilling, etc.

The food system has to cater to both fresh whole food and processed food items. Manufacture of convenience food items, fortified foods, and food extracts was supported through initiatives rolled out by the government that led to the development of an expansive food processing industry in India. Initially, the Ministry of Food Processing Industries (MoFPI) focused on supporting industry-scale food processors with technology uptake and infrastructure to create factories by promoting Food Parks. A multitude of processing enterprises has now emerged in India, converting cereals and pulses into fortified meals, biscuits, snacks, milling flour and rice, edible oil factories, and more. Similarly, the industry was encouraged to processing of a variety of fruits, such as making wine, potato chips, juices, ketchup, etc. Further, pickles, jams, frozen and ready-to-eat items from culled tableware fresh foods got encouraged in the MSME sector.

Meat, poultry, and fisheries food items for export are also processed and form a large share of food processing industries. While largely the food processing industries in India cater to domestic demand, the sector has also emerged as a net exporter. Towards the end of the **Consolidation Phase (1991-2015) (refer to Figure 1)**, it is reported that India had more than 37,000 units registered as food processing factories (2013-14). This same year, the registered food processing units were reported to employ 1.74 million people.

However, a larger number of units, particularly at cottage-scale or micro-scale enterprises, exist in the unorganized sector, supporting a larger number of jobs and value generation.

In the dairy sector, while the bulk of milk is consumed in fresh liquid format, the huge demand for butter, clarified butter (ghee), ice cream and other products caused demand-led processing of milk. Surplus milk production is also processed into whole milk powder and skimmed milk powder. Much of dairy processing is handled by the cooperatives sector in India. The milk supply chain in India caters to both fresh milk demand and integration with the dairy processing units. Various reports indicate that food loss in milk is less than 1.5 percent of the milk produced. The Economic Survey (2020-21) highlighted that in 2019-20, the per capita availability of milk was 407 grams per day and with milk production expected to cross 205 million tonnes in 2020-21 (FY20: 198 million tonnes), the per capita availability is expected to cross 425 grams per day.

India is the global capital of spices and is the world's largest producer, consumer, and exporter of spices. This food sub-sector traditionally comprises small landholders who have been positively impacted by initiatives of the Central Government. In 1987, the government constituted the Spices Board of India, merging the erstwhile Cardamom Board and the Spices Export Council. A statutory body under the Ministry of Commerce and Industry {vide the **Spices Board Act (1986)**}, it serves as a regulatory and export agency regarding the production and marketing of spices. The Board spearheaded activities that enabled India to reach a high level of excellence in this sector. **India produces about 75 of the 109 varieties listed by the International Organization for Standardization (ISO) and accounts for half of the global trading in spices.**

In 1976, the Government approved the final report of the National Commission on Agriculture (commissioned in 1970). Among other policy recommendations, it emphasised the

need to modernize livestock, fisheries, and other allied sectors in agriculture, and to bring the added focus of agricultural research, education, and extension systems to these sectors. This set the tone for public agricultural research and education systems to devote more resources across agriculture-allied sectors. As food demand diversified and expanded beyond cereals, so did the interventions by the Government of India. India's extensive public agriculture extension system scaled and adjusted to improve the productivity in other sectors, such as horticulture, animal husbandry, fisheries, beekeeping, etc. By the second decade of the new millennium, the growth potential of livestock and fishery sectors

gained greater attention as a provider of nutritious food and additional livelihood options. Thus was launched the National Livestock Mission in 2014. It establishes convergence and synergy among multiple ongoing government programs for sustainable livestock development. It dovetails a series of interventions to accelerate production of quality fodder and fodder seeds, promotes applied research in prioritised areas of concern in animal nutrition and livestock production, provides for infrastructure and forward linkage for marketing, processing, and value addition to farmers' enterprises, promotes risk management measures including livestock insurance, and more.

Initiatives on Access to Food

The discussion paper has so far dwelt mostly upon the production and distribution aspects of the food production system, now engendering the necessity to turn to the critical aspect of food access. In 1992, India ratified the United Nations Convention on the Rights of the Child (**UNCRC**) and is, under Article 24 of UNCRC, committed to "**adequate nutritious food**" for children. On **15 August 1995**, the Central Government launched its National Programme of Nutritional Support to Primary Education (**NP-NSPE**). Before this, similar initiatives were seen in 12 states of India, but by 1997-98, the NP-NSPE was being implemented all across the country. It then provided for a cooked mid-day meal of 300 calories and 12 grams of

protein, to children enrolled in government schools in classes one to five. In **2007**, the programme was restructured into the **National Programme of Mid-Day Meals in Schools (Table 2)**. By 2008, this Mid-Day Meal (MDM) scheme covered all children across the country studying in government, local body, and government-aided primary, and upper primary schools, along with those studying in centres supported by Education Guarantee Scheme (EGS) and Alternative & Innovative Education (AIE) Scheme, and in Madarasas/Maqtab. The food norms of MDM were revised and now the scheme also covers the cost of essential infrastructure, cooking, and hiring of cooks and helpers.

Table 2: Mid-Day Meal - Food norms

S.N.	Items	Quantity per day/Child	
		Primary School	Upper Primary School
1	Foodgrains	100 grams	150 grams
2	Pulses	20 grams	30 grams
3	Vegetables (leafy also)	50 grams	75 grams
4	Oil & fat	5 grams	7.5 grams
5	Salt & condiments	As per need	As per need

Source: Ministry of Education, GoI

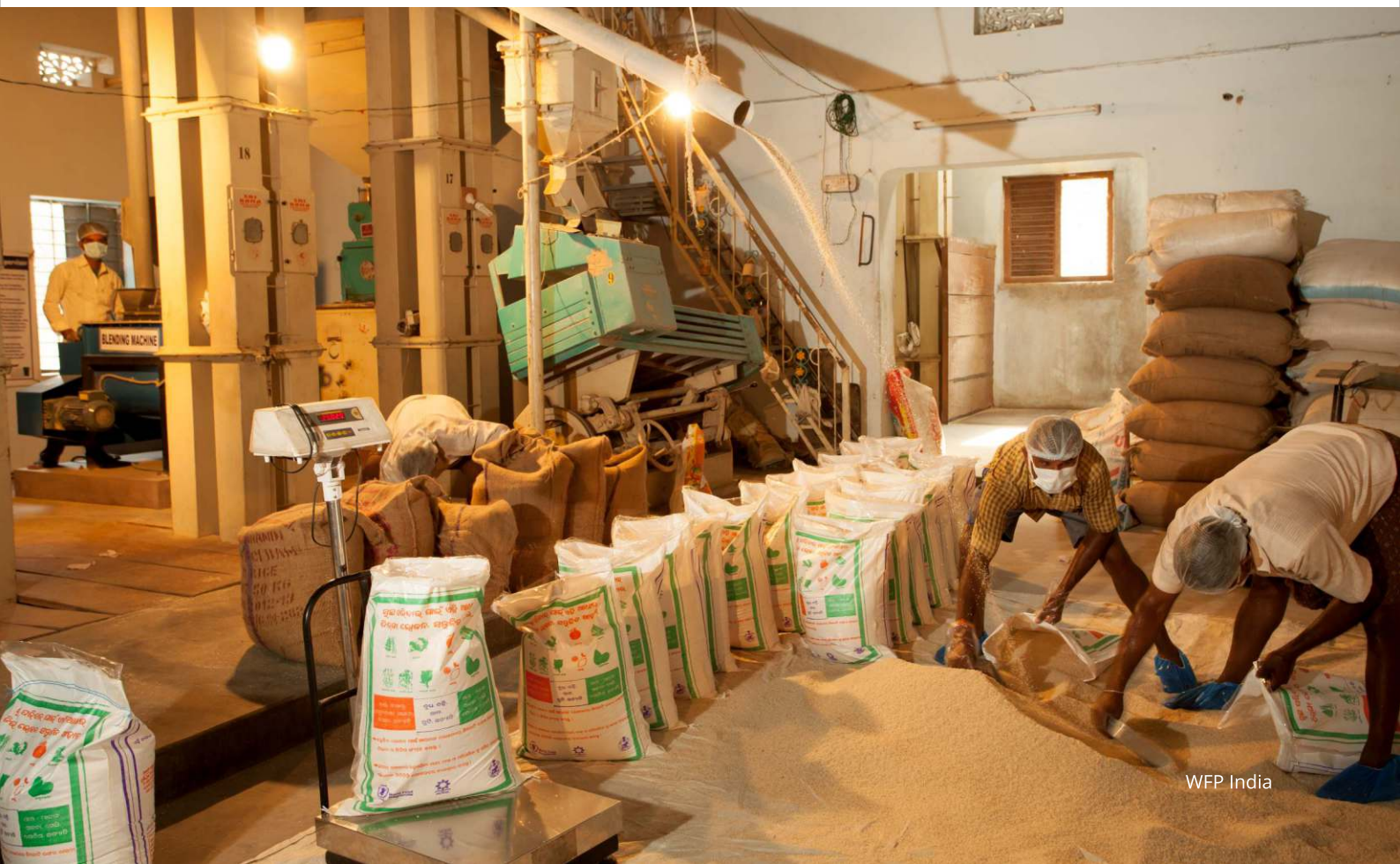
In some states/ UTs, additional provision of eggs, dairy products, and fortified food items is also made. **In 2019-20, the scheme covered 11,19,724 (1.11 million) institutions enrolling 11,80,16,529 (118 million) children.** The budgetary outlay in 2020-21 for the MDM scheme was Rs. 12,900 crores (USD 1.82 billion). **India's MDM scheme now has legal backing, akin to that provided in the US through its National School Lunch Act.**

The critical food shortages of the 1960s had brought focus on the need for direct delivery of foodgrains to certain pockets of the country. This had led to the adoption of the Public Distribution System (PDS) in urban scarcity areas. Then, this system was extended to tribal blocks and areas of high poverty incidence in the 1970s, and 1980s. To strengthen and streamline the PDS, a Revamped Public Distribution System (RPDS) was launched in 1992, which was subsequently restructured and commissioned as **Targeted Public Distribution System (TPDS) scheme in June 1997**, with a targeted view the poor more sharply. **In the year 2000**, there was further sharpening to cover the poor, and hence, a scheme called “**Antyodaya**

Anna Yojana (AAY)” was launched. It adopted quantifiable criteria to identify the eligible.

India signed into law the **National Food Security Act, 2013 (NFSA), also called the Right to Food Act, in September 2013.** It includes the Mid-Day Meal (MDM) scheme, Targeted Public Distribution System (TPDS), and Integrated Child Development Services (ICDS) scheme, converting them into legal entitlements. The MDM and ICDS are universal, and the TPDS targets about two-thirds of the country's 1.3 billion people (75 percent in rural areas and 50 percent in urban areas). **The objective of NFSA is “to provide for food and nutritional security in human life cycle approach, ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity....”**

Under the NFSA, the TPDS entitles households identified under AAY to receive 35 kilograms of foodgrains per household per month, and other priority households with 5 kilograms per person per month, at highly subsidized prices. For each state, the total number of people covered under the TPDS is determined by the Central Government based on population estimates and



the state governments are responsible for developing the criteria for the identification of priority households. **The TPDS provides nearly 800 million people with highly subsidized foodgrains.** In recognition of the loss of livelihood options due to COVID-19, the government gave an additional 5 kgs of free rice or wheat to every ration cardholder under the TPDS. Importantly, the eldest woman in each household, who is not less than eighteen years of age, is considered the head of the household for the issuance of ration cards, a step towards women empowerment. The NFSA also provides nutritional support to every pregnant woman and lactating mother by entitling them to a meal, free of charge, and additional financial support is provided as maternity benefit to supplement their nutrition. Through the ICDS and MDM, nutritional support is provided to every child up to the age of fourteen years, by way of a proper meal, free of charge, through local ICDS centres, called Anganwadi centres, in all schools run by the government and local bodies, and in government-aided schools.

To enable a more appropriate focus on food safety, the Central Government passed a consolidating statute related to food safety and

regulations in India, called the **Food Safety and Standards Act, 2006. In August 2011, the associated Food Safety Standards Authority of India (FSSAI) was formed,** which is responsible for protecting and promoting public health through regulation and supervision of food safety matters. The FSSAI also contributes to the development of international technical standards in food and the dissemination and promotion of public awareness about food safety and nutrition in India. This has empowered consumers with greater confidence in food products and has also provided them with the ability to redress any concern regarding misleading claims concerning food ingredients, additives, products, etc.

Other food safety measures come from the Central Government initiating a central sector scheme called **the Monitoring of Pesticide Residues at National Level (MPRNL) in 2006.** Under this, the Department of Agriculture & Farmers' Welfare (DA&FW) undertakes regular monitoring of the pesticide residues in food commodities and environmental samples. The permissible maximum residue limits are regulated by the FSSAI.

The preceding policies and actions were selected and discussed to give a broad indication of how the Government of India laid the foundation for what is now known as the Food System. They shaped the subsequent roadmap for related activities and have led to a fresh set of game-changing interventions after 2015. These shall be dealt with in the ensuing sections.

Game Changers after 2015



WFP/Parvinder Singh

Critical food shortages of the past and growing population ensured that India's agricultural system stayed food-focused, and the approach remained highly production-centric. By 2015, India was not only self-sufficient in respect of food production but was also a net exporter of agri-products occupying seventh position globally. In 2013-14, the country produced 265 million tonnes of foodgrains and 277 million tonnes of horticultural produce. These figures went up to 308.65 million tonnes (4th Advance Estimates) & 329 million tonnes (2nd Advance Estimates) respectively in the year 2020-21, indicating the impressive rise in per ha. yield levels. Of course, the rise in horticultural produce is an outcome of both increasing productivity and area coverage. Since 2005-06, driven by focused programs on horticulture, the area under the sector has been rising and by 2020-21, it stood at 26 million hectares, an impressive growth from around 18 million hectares in the year of initiation. With more favorable farm returns and a commensurate rise in demand for fruits & vegetables, one can expect the trend to continue over the years and meet the higher needs for a nutrition-rich diet.

This is important to address concerns that still exist in the country with malnourishment & undernourishment of the population. Further, the increase in the area needed for horticulture, dairy & livestock, fisheries, and the like, is expected to come from cultivation areas released by the foodgrain sector. Thanks to increasing per ha. yields of foodgrains (cereals & pulses), on account of the interventions made under the National Food Security Mission (NFSM), crop diversification is becoming feasible without compromising foodgrain production.

NFSM was launched in 2007-08 to realize higher area and productivity-based production in wheat, paddy, and pulses. Subsequently, nutriacereals/ millets (then called coarse cereals) too were brought under NFSM. Thereafter, in 2014-15, commercial crops, namely cotton, jute, and sugarcane, were also included under NFSM. Notwithstanding the enviable cumulative agricultural output, there remained segments of concern, impacting the nutrition status of the consumers. **The government, therefore, sought to bring focus to the three-deficit crop**

categories, namely pulses, nutria-cereals, and oilseeds.

Pulses have been an integral part of the Indian diet. Being a cost-effective source of proteins, pulses along with leguminous species, in general, are important in India for a vegetarian population of 47 percent. Concerned with a low pulse production of 16.71 million tonnes in 2015-16, the Ministry of Agriculture drew up a five-year action plan on the lines of a mission and targeted to increase pulse production in the country. With the increase in the number of districts covered under NFSM (pulses) and focussed interventions, including production of quality seeds, the output jumped to 23.13 million tonnes in 2016-17, and in 2020-21, it registered a further rise at 25.72 million tonnes. This upward trend has also been on account of an increase in MSP and procurement of pulses that incentivized the farmers to adopt better technology to realize higher productivity.

The deficit in domestic production of edible oils has also been a serious concern. With domestic production of about 33.41 million tonnes of oilseeds (2019-20), the availability of edible oils from nine seasonal oilseeds & other sources (palm, tree-borne, and secondary sources) has been far short of the annual average demand of about 15 million tonnes. Hence, since 2015, the government has had a renewed attention towards promoting seasonal oilseed crops and oil palm under the centrally sponsored scheme, National Mission on Oilseeds and Oil Palm (NMOOP), launched in 2014-15. With effect from 2018 to 2019, NMOOP came to be merged with NFSM and was called NFSM (OS & OP). However, in the year 2021-22, it has further been restructured as **National Mission on Edible Oil (NMEO)** with two verticals, namely **NMEO (Oilseeds)** and **NMEO (Oil Palm)**. Since there is a growing demand for edible oil with a growing population, it may be difficult to achieve selfsufficiency in edible oil anytime soon. Hence, the government's target is to restrict further growth in the already huge quantum of imports being made, by increasing domestic production of all three sources of edible oils. With this end in mind, the Government of India in August 2021 approved two proposals, namely Implementation of NMEO (OP) for the period 2021-22 to 2025-26 and Viability price for

the price of FFB (Fresh Fruit Bunch) to secure the farmers assured returns. The target is to increase the palm oil plantation to 10 lakh hectares by 2025-26. The targeted Crude Palm Oil (CPO) is 11.20 lakh tonnes by 2025-26 and 28.11 lakh tonnes by 2029-30. The estimated cost for the Mission Period as approved by the Cabinet is Rs.11,040 crores (USD 1.5 billion) inclusive of central & state shares. However, support for Viability Gap Funding (VGF) will continue until 2037. Further, NMEO (Oilseeds) will also roll out this year.

Millets have been India's traditional crops most suited to rainfed agricultural systems. On account of negative inter-crop returns, the area under millets saw a decline since 1983, with the coverage plummeting from 41 million hectares to around 17 million hectares by 2015-16. Millets are not only eco-friendly and better suited to poorly endowed regions but are also rich in dietary fibre and various nutrients, and possess a low glycaemic index. They are a good source of protein, micronutrients, and phytochemicals. Thanks to improved technology, the output of millets had stayed put at around 18 million tonnes despite an unchecked shift of area coverage to non-millets. In recent years, there has been a vigorous attempt to increase the production of millets by adopting the triple interventions of technology under NFSM, higher MSP, and procurement under **PM-AASHA** (Pradhan Mantri Annadata Aay Sanrakshan Abhiyan). Further, some state governments, like those of Odisha and Karnataka, have now been using the procured millets for consumption through PDS, ICDS, and Mid-Day-Meal scheme for students. In recognition of the nutritive value of millets (earlier called coarse cereals), they have been re-named as **nutria-cereals** and the year 2017-18 was celebrated as "The Year of Millets" in India. It is at the behest of India's proposal that the UN has resolved to celebrate the year 2023 as "**The International Year of the Millets**".

Apart from these anomalies in the food production basket, there were also concerns about **sustainability at ecological and economic levels**. Large tracts of erstwhile arable and fertile land had come under stress and turned into problem soils (alkaline, saline & acidic) with indiscriminate use of chemicals, overuse of water,

and poor/no attention to soil organic carbon. Climate change was adding new challenges. Food production pattern, particularly in the Indo-Gangetic Plains, considered the food basket challenged by untenable cropping system (paddy followed by wheat), which forced burning of paddy crop residue to prepare for winter wheat within the available narrow window of about 25 days. This was harming the production ecology and the larger environment. Further, the plateauing of yields across agricultural sub-sectors indicated technology fatigue and the extension services needed modernization. A vigorous focus on new science and technology options, which targeted and benchmarked productivity and sustainability together, was called for.

A major challenge that had come to gain momentum was the sub-par translation of increasing volumes of production into monetary value on account of falling prices, the inability of farmers to withhold till the market achieved buoyancy, and poor agri-logistics. The steady supply of food and food loss was a growing challenge. The farming community – the human factor behind food production – was infrequent distress and in fact, an inverse relationship between farm production and farmers' income was being evidenced. Ironically, the country was still home to the largest number of undernourished and underweight children in the world. Urbanization and a demographic shift in

Supporting Healthy Nutrition

In 2015, the **Atal Pension Yojana (APY)** was launched as a scheme mainly focused on the unorganized sector workers such as maids, gardeners, street hawkers, delivery persons, labourers, etc., which aimed to provide them with a guaranteed minimum pension after they reach 60 years of age. Earlier, in 2014, one of the largest financial inclusion programs in the world was undertaken. This was **the Jan Dhan Yojana (JDY)**, which aimed to provide bank accounts with zero balance to all and the pension program was linked to this. Subsequently, in 2019, a pension scheme for old age protection and social security of Small and Marginal Farmers (SMF), aged 18 to 40 years, called **the Pradhan Mantri Kisan Maandhan Yojana (PMKMY)** was also launched. These

food habits offered the pursuit of market-led production and economic growth. Yet regular calls were made for the government to assure the farmers' remunerative returns through its public procurement mechanism. The market ecosystem remained ingrained in the past, unproductive in dealing with the changed circumstances and inefficient in managing the surpluses generated. On the consumption side, a large number of housewives in poor households were still cooking food on kerosene stoves or by firing coal or other biomass, which exposed them to deadly smoke. Another concern was related to millions employed in unorganized sectors, with minimal resources to rely on in their senior years, and consequently facing a serious impact on their food intake, nutrition, and health. **This new situation called for the strengthening of market forces and simultaneously broadening the welfare net with secure support to the needy to sharpen the food system.**

It was clear that henceforth both production and post-production aspects of the food system must be developed together, unlike in the past, when their role was considered sequential. A sustainable food system with equitable and egalitarian benefits required the adoption of an end-to-end approach, and this concern substantiates the basket of interventions that the Government of India has made in recent years through new policies, programs and schemes.

programs touch millions of lives with a guaranteed pension income that can supplement their nutrition needs in their old age.

To address the pitiful condition of the smoke-generating traditional cooking system in poor households, the government launched the **Pradhan Mantri Ujjwala Yojana (PMUY) or Ujjwala scheme on 1st May 2016** to make clean cooking fuel such as LPG available to women of rural households. The original target to primarily cover rural women Below Poverty Line (BPL) with 50 million free LPG connections was extended in 2018 to all the poor households and other deprived categories. As of August 2021, a total of 81.40 million LPG connections have been released

under this scheme. The scheme not only provides for a new connection but also subsidizes refill of cooking gas if the criteria of being a poor household or other beneficiary types is met. This initiative has been positively impacting on the health of women, besides providing them extra time to attend to other aspects of their own life. The ecology is also benefitting from reduced carbon footprints. India was among the largest contributors to global mortality due to household and ambient air pollution. **From the food system perspective, it addresses a healthy way to consumption and family health.**

By deploying the power of its earlier triple interventions – Jan Dhan (zero-balance-based bank account), Aadhaar (the biometric-based unique Identity number) and the Mobile-based App (the three together referred to as JAM), the country has created a secure platform for direct and seamless transfer of various services to the targeted group. Regarding the food system, in August 2015, the Government of India notified the **“Cash Transfer of Food Subsidy Rule, 2015”** under the enabling provisions of the National Food Security Act, 2013 (NFSA). It, inter alia, provides for the transfer of cash directly to the bank accounts of entitled households for the provision of food entitlements. This mechanism of direct cash transfer to the beneficiary (DBT) is being implemented on a pilot basis in the union territories of Chandigarh, Puducherry and Dadra & Nagar Haveli. The DBT pilot aims to **(i)** reduce the need for huge physical movement of foodgrains; **(ii)** provide greater autonomy to beneficiaries to choose their consumption basket; **(iii)** enhance dietary diversity; **(iv)** reduce leakages; **(v)** facilitate better targeting; and **(vi)** promote financial inclusion.

Thanks to the freedom of movement for education and profession guaranteed as a constitutional right, the workforce is mobile and includes a large number of domestic migrant workers among others, all of who are enrolled under the NFSA. While this necessitated seamless access to their food entitlement, it was immobile under NFSA, as it was linked to their home addresses in their state of domicile. **Earlier in May 2019, the Central Government had launched the One-Nation One-Ration Card**

(ONORC) scheme. The initiative piloted initially in four states to demonstrate inter-state portability was, by January 2020, adopted in 12 states. After a multitude of COVID-19 related challenges, a total of 32 states/UTs covering around 690 million, i.e., 86 percent of NFSA beneficiaries in the country, stood to benefit under the ONORC plan (December 2020). As of 2021, this is being implemented in 34 states/UTs and provides seamless portability of existing ration cards for availing food-security entitlements. Tailor-made for migrant labourers, ONORC makes food security portable by allowing beneficiaries to avail their entitlements under the NFSA from any Fair Price Shop (FPS), also known as ration shops, irrespective of their physical location anywhere in the country. This digital-based system can now ensure exclusion of the ineligible, inclusion of the eligible, and monitor targeted delivery of entitlements to the advantage of the consumers.

In 2018, the government launched Prime Minister's Overarching Scheme for Holistic Nutrition (POSHAN), also called the Poshan Abhiyaan or National Nutrition Mission (NNM). Its objective is to ensure adequate nutrition and enhance the nutritional status of pregnant women, mothers, and children in identified districts with the highest malnutrition burden. It is a multi-ministerial initiative that leverages technology and convergence between/among various agencies of the government. It has specific annual targets for reducing anaemia by three percent stunting low birth weight, and undernutrition by two percent. It also targets the scaling up of interventions under the aforementioned ICDS scheme. The implementing agency is the Ministry of Women & Child Development. **POSHAN has more than 98.6 million beneficiaries and its dashboard provides a daily tracker of take-home rations, and cooked meals disbursed.**

The food system guided by food security is expected to ensure affordability besides availability & accessibility. Given the high-universal demand for certain perishables including onion & potatoes in the country and simultaneously their price volatility, the consumers needed to be protected. This led to **Price Stabilisation Fund (PSF).** Conceived in 2014, the operational

guidelines were released by the Ministry of Agriculture and Farmers Welfare in March 2015.

With a corpus of Rs.500 crores, the Fund operated to provide an interest-free advance to state governments and UTs to procure, and maintain a strategic buffer of the two perishable vegetables to protect consumers by supplying the commodities in a calibrated manner to discourage hoarding and unscrupulous speculation. In 2016, the implementation of this Fund was rightly moved under the Ministry of Consumer Affairs, Food and Public Distribution, and pulses were also included in the notified commodities. The PSF remains in use to support consumers and keep these staple food items affordable in times of extreme price fluctuation.

Similarly, a **Market Intervention Scheme (MIS)** is available to state governments as an ad-hoc scheme under which are included horticultural commodities which are perishable and are not covered under the Minimum Price Support scheme. The MIS is intended to intervene to protect growers from making distress sales in the event of prices falling below economic levels and the cost of production. This has, however, also helped maintain producers who would otherwise react and shift from producing such crops in the following cropping cycle. **The scheme, therefore, contributes to sustaining the subsequent supply of such nutritious foods to consumers.**

These actions directly relate to ensuring access to safe and nutritious food for all (At1). Furthermore, they also link to supporting a positive food environs and food experience to support healthy consumption patterns (AT2), and the sustenance of livelihood of the workforce (AT4).

Supporting Nature Positive Food Production

Negotiating Climate Change and its Impact on Food System:

Even as the focus is continuously redirected on sustaining a robust food system to meet the food and nutrition demands of the country's growing population, the country is also displaying sensitivity and respect for a sustainable approach in the context of climate change. India is committed to its targets under various international agreements that include fulfilling its Nationally Determined Contributions (NDCs) vis-à-vis the Paris Agreement, 2015, under the UNFCCC; SDGs 2030 milestones; Land Degradation Neutrality (India has voluntarily increased its target area to 26 million hectares); Convention for Biological Diversity; etc.

India has been targeting delineated NDCs to be achieved by 2030. At the macro-level, India's environmental policy is anchored in Article 48-A of its Constitution. The broad policy framework relating to the environment and climate change that flows from this comprise is listed here:

- i)** National Environment Policy (NEP), 2006
- ii)** National Action Plan on Climate Change (NAPCC)

iii) State Action Plan on Climate Change

The NAPCC provides a sharper focus on required interventions, an effort that is being channelized through eight national missions that outline priorities for mitigation and adaptation to climate change. The SAPCCs adopted by various states and union territories are focused on mainstreaming climate change concerns in their planning process. The government has also set up a national-level panel with a composition that draws members from various ministries, technical experts, civil society leaders and other stakeholders to drive a coordinated approach to the nation's climate change goals under the Paris Agreement.

Committed to its NDCs, the Government of India has adopted specific strategies under the three components of the Paris Accord, namely Mitigation, Adaptation and Finance. There are eight strategies under the head of Mitigation and nine under Adaptation. Conscious of the deleterious impact of climate change on the climate-sensitive livelihood options of a vast

section of its dense population, the Agriculture sector has been specially identified as critical for promoting mitigation strategies. Water is another important element of the mitigation strategy,

while also emphasizing that seven other components are equally important from the perspective of food system security under climate change conditions.

Climate Change – Agriculture – Policies and Missions:

The specific initiatives in this regard include National Food Security Mission (NFSM), Mission Integrated Development of Horticulture (MIDH), National Mission on Sustainable Agriculture (NMSA), Sub Mission on Agricultural Mechanisation (SMAM), National Bamboo Mission (NBM), Sub-Mission on Agroforestry (SMAF), National Mission on Agricultural Extension & Technology (NMAEMT), among others. Under each of these, the government has rolled out several missions and centrally sponsored programs. Some of these are Paramparagat Krishi Vikas Yojana (PKVY), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Soil Health Management (SHM), Rainfed Area Development (RAD), etc. Some of these are discussed in the following paragraphs.

The Government's **National Mission of Sustainable Agriculture (NMSA)**, promotes a sustainable development pathway. It promotes location-specific improved agronomic practices

through soil health management, enhanced water use efficiency, judicious use of agro-chemicals, increasing use of organic carbon, crop diversification, progressive adoption of crop-livestock farming systems, etc. and encourages a progressive shift to environmentally-friendly technologies, energy-efficient equipment, conservation of natural resources, etc.

Soil health management is a crucial component of the NMSA. To facilitate science-based and farm-specific interventions, the Central Government launched the universal **Soil Health Card (SHC) scheme in 2015**. After testing soil samples collected from a defined grid and assessing the nutrient status (macro, secondary & micro-nutrients, besides pH & soil organic carbon) of each, a physical soil health card is issued to all the farmers within the respective grid. The farmers can then make an informed decision for integrated nutrient management of the soil. By



WFP/Aradhana Srivastava

now, (two) cycles of 2 years each have been completed. The numbers of SHCs generated stand at 10.74 crores in Cycle -I (2015-17) and 11.97 crores in Cycle-II (2017-19). In 2019-20, the scheme was modified and tested as 'Pilot Model Village Development', under which the soil samples were collected from individual landholdings instead of adhering to the grid-based collection as in the first two cycles. In 2020-21, demonstrations were undertaken to prove the usefulness of SHC-based soil health management. The SHC system will have a long-lasting impact on the evidence-based nutrient application and the promotion of customized inputs, and fertigation. The use of nitrogen has been further rationalized by adopting the slow-releasing, neem-coated urea.

A sub-component of soil health management under the NMSA, also launched in 2015, is conservation agriculture, with two specific programs. These are the **Paramparagat Krishi Vikas Yojana (PKVY) and Mission Organic Value Chain Development for the North Eastern Region (MOVCD-NER)**. These help farmers develop sustainable models of farming through a blend of traditional wisdom and modern science to ensure long-term soil fertility build-up, resource conservation, and aid in climate change adaptation and mitigation besides producing chemical-free healthy food. Another important initiative in the conservation agriculture domain is **Natural Farming**, which was rolled out in 2018. The country targets to cover 14 million hectares under conservation agriculture, accounting for 10 percent of the net cultivated area in due course. These initiatives suggest the government's attention to ecological problems and promoting chemical residue-free safe foods.

Other related components of NMSA are Rainfed Area Development (RAD) and Climate Change and Sustainable Agriculture: Monitoring, Modelling, and Networking (CCSAMN). Collectively, the NMSA influences soil health management, facilitates scientific use of inputs, aids diversification of cropping systems, disseminates best practices and technologies in rainfed areas, supports the judicious use of fertilizers and minimizes soil degradation.

A Sub-Mission on Agricultural Mechanization (SMAM) is another initiative that targets to increase the use of farm power by supporting small and marginal farmers and the regions where the average is low. It also supports for setting up of Custom Hiring Centres (CHCs), so that farm machines can be availed as a service by the small and marginal farmers. This is important from the perspective of ensuring timely agricultural operations and nature-positive production as the facilities include those that enable the judicious, and safe application of pesticides and other agrochemicals.

Adopting a systems approach to ongoing interventions on soil health, water conservation and watershed development, also dovetailed the agroforestry on the on-farm landscape. Natural biophysical resources on farm landscape are promoted, such as trees to help in enriching soil organic matter and windbreaks, peripheral shrubs as large pest barriers, etc. **Agro-forestry** is a submission (SMAF) under NMSA launched in 2016-17. It also aids in higher carbon sequestration and complements other national initiatives on climate change adaptation and mitigation. This aspect finds additional support from the government amending the Indian Forest Act, 1927, to liberalize plantation of select species by the farmers (hitherto restricted) on their field bunds, which includes permission to fell and transport the mature wood to the market. Similarly, the bamboo species has been released from the Forest Act to let farmers grow it on their farms, and a dedicated programme called **Restructured National Bamboo Mission** rolled out as a value chain approach in the year 2018-19. The foray into non-crop forestry species is a way of technology based risk management at the farm level and facilitates the realization of regular returns.

Integrated food farming systems are encouraged, promoting crop-livestock synergies in individual farms as well as across village communities. The emphasis on the creation of Farmer-Producer Organizations (FPOs) also extends to Village Producer Organizations (VPOs), where village communities can cooperate for a more sustainable mixed crop-livestock food production

system. Besides NMSA, support for integrated farming is also provided by the Central Government through the Mission for Integrated Development of Horticulture (MIDH). Through a dedicated National Beekeeping and Honey Mission (NBHM), 'Sweet Revolution' was also scaled up with a budgetary allocation of Rs.300 crores for the years 2018-19 & 2019-20. This emphasis on bees brings a key contribution to crop yields, besides the production of honey as a nutritious food supplement.

Committed to accord high priority to water conservation and its management, the Government of India launched the **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) in July 2015** with a corpus fund of Rs.50,000 crores (USD 6.8 billion), in addition to the annual budgetary allocations. It amalgamates other schemes to expand the area under dependable water sources by completing the long-pending and incomplete irrigation projects; extend the coverage of irrigation (HarKhet to Paani – water to every farm) by constructing a large number of small/micro irrigation structures; water conservation and groundwater recharge through Watershed Development Component (WDC); improve water use efficiency (Per Drop, More Crop) by adopting micro-irrigation systems. The initiative looks at an end-to-end solution on source creation, distribution, management, field application and extension activities. The PMKSY has a decentralized planning and execution structure to allow states to draw up **District level and State level Irrigation Plans**. The funds for PMKSY are pooled from a corpus fund for completion of AIBP (Accelerated Irrigation Benefit Projects), Micro-Irrigation Corpus Fund, budgetary allocations for all the four sub-components of PMKSY and developmental programs like the MGNREGA of the Department of Rural Development. As part of Phase-I, as many as 99 of the 155 incomplete AIBP Projects have been taken up and while nearly 45 are complete, the rest are at an advanced stage of completion. With the completion of all the projects, an additional cultivable area of 7.6

million hectares will come under irrigation. The area under micro-irrigation has also gone up substantively to about 13 million hectares by 2020-21.

There are special initiatives to promote climate-resilient and climate-smart agriculture to realize more sustainable and higher per hectare yield levels. Integrated Watershed Development Project (IWDP), called Neeranchal, is one of the major interventions being made. This is a landscape approach to the production system that treats land on the principle of 'Ridge to Valley'. The specific interventions include soil and water conservation, integrated farming, non-farm livelihood activities, and people-led management.

To demonstrate climate resilience in agriculture, the Indian Council of Agriculture (ICAR) led a major project called "National Initiative on Climate Resilient Agriculture (**NICRA**)". It includes four modules – Natural Resource Management (NRM); improving crop production; livestock and fisheries; institutional interventions.

The National Rainfed Area Development Authority (NRAA) has developed a **Composite Index (CI)** linked to Natural Resource Index (NRI) and Livelihood Index (LI) to prioritize index-based prioritization of drought-vulnerable districts. It has also developed a comprehensive drought-proofing package based on climate-smart agriculture principles. This is progress over the District Contingency Plans (**DCPs**) that the country has been preparing to help farmers overcome climate-related constraints.

All the above initiatives (as also those discussed in the earlier sections) that offer new technology and agricultural management practices are enablers of a more sustainable system of production that will ensure a secure food production system at the production stage. These are further supported by a package of post-harvest management measures that include competition-based marketing channels, fair and remunerative prices under the system of MSP with a bias in favor of climate-

resilient crops (pulses, oilseeds, millets), strengthening of agri-logistics & processing to minimize food loss, farmers mobilization through FPOs, etc. The expected increase in the number of weather extreme events is being addressed by adopting the mechanism of weather forecasting, pests & diseases as also prediction of demand and price to help risk negotiation, etc.

All these interventions are supported by Research & Development carried out by the National

Agricultural Research System (NARS), reorientation of the policy framework, and advocacy among all the stakeholders. The underlying principle of the food system in particular and agricultural development at large is being guided in India by **nutrition security for the consumer, income security for the farmer, and a sustainable approach to ecology**. This formula will take care of a secure and stable food system for the country's growing population.

In appreciation of the expected negative impact of climate change on the climate-sensitive livelihood options of a large percentage of the country's population, India has a comprehensive package of strategies in place under the National Mission on Sustainable Agriculture. Following this, specific policies, programs and schemes have been adopted. These actions have a direct impact on soil health, affect smart and efficient use of water resources, encourage regenerative farming to enable living soils, and aid in restoring degraded ecosystems (AT3). They also help resilient development (AT5), and by optimizing inputs, advance the livelihood efforts of small producer-farmers (AT4).

Supporting Resilience in Food Supply Chain

The food supply chain was approached sequentially in the past, which had directed more effort and resources on multiple production aspects. Various organizations and agencies had come into existence to market a variety of inputs, machinery, and guidance, all of which were largely production-centric. However, the need for efficient marketing of the output did not elicit equal attention in the earlier phases of development. This resulted in a more vested and less resilient post-production supply chain, especially for fresh whole food that did not require intermediary conversion into processed food products. The market architecture of the 1960s, designed for a period of deficit, was being continued into the 21st century.

A new market architecture was proposed by the Inter-Ministerial Committee on Strategy for Doubling Farmers' Income in its Preliminary Report in 2017. It pointed out anomalies that did not enable smallholder farmers to opt for market connectivity beyond the

regulated markets near their farms. There were very few aggregation hubs for farm produce that could serve such needs of the farmers and enable them to target better-paying markets within the country. In 2018, the Government of India announced the setting up of 22,000 aggregation hubs (called GrAMs, Gramin Agricultural Markets) that would primarily serve as first-mile aggregation points and connect physically, and electronically the aggregated lots to other market centres, and also function to allow local retail-level transactions. It was also announced that the GrAMs would be kept outside the ambit of the existing APMC market system. This intervention was preceded by developing the **Model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017**, with all the states. This was a progressive initiative as it enabled more than one APMC in the same place by provisioning to set up APMCs in both public/cooperative and private sectors, confined the jurisdiction of the APMC to its market yard and thereby creating a free trade zone outside it for

other marketing, and trade players to operate. This promoted the concept of 'One State-One Market' with single trader license for the entire state, deregulated fruits & vegetables from the APMC provisions, among several other facilitations that primarily aimed at a competitive market structure.

The operational guidelines for GrAMs were formulated in 2018 for developing them as multi-commodity aggregation hubs. They allowed for service models where resource sharing could be achieved for the pooling and cooling of milk, pre-conditioning and pre-cooling of fruits and vegetables, assaying and bagging of foodgrains and oilseeds, etc., and for other requirements of the local community. Therefore, GrAM facilities aim to serve as village community hubs, to function at bulk and retail levels and to achieve a high level of energy efficiency through more effective resource, and capacity utilization. Further, the concept of market infrastructure went beyond developing merely buying-selling centres and aimed at creating village-level services—assembly/pooling/packaging units that could facilitate forward connectivity services to crossregional centres. The Agriculture Market Infrastructure Fund (AMIF), with a corpus of Rs.2,000 crores (USD 270 million), was set up in 2018 to support the creation of suitable infrastructure in GrAMs, as well as to upgrade the existing regulated wholesale markets (APMCs).

These interventions indicated that farmers need not restrict themselves to near-farm sales at depressed valuations but could avail the services of GrAMs and target higher valuations for their produce at wholesale markets in other parts of the states, as also other states and regions. The initiatives also freed the farmers from continuing with the existing practice of selling at their local wholesale APMC market, which originated a multilayered, non-differentiated agricultural supply chain. This was the first time that farmers were provided with the means that empowered them with a choice of marketing, where supply connectivity became feasible under the concept of 'One-India One-Market'. However, this was to be

legally and firmly facilitated by the next set of market reforms that saw the light of the day in 2020. The direct dispatch of fresh produce to terminal destinations was also intended to minimize repeated intermediary handling and mitigate food losses in the supply chain. The GrAMs are not merely pack-houses for fruits and vegetables but can also consolidate pooling points for milk, aggregation and bagging of grains, and other agricultural produce for forward supply chain connectivity.

Additionally, the required all-weather road connectivity of the villages found support under the **Pradhan Mantri Gram Sadak Yojana** (Program for rural road development). Then, in its third phase (**PMGSY-III**), GrAMs were directed to be linked.

The idea of the **One-India One-Market ecosystem** came to the fore fully with the legislation of the **Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020 (FPTCA)**. It legally provisions farmers and traders with the freedom of choice relating to inter-state and intra-state sales and purchase of farmers' produce, including through channels outside the physical premises of markets notified under other market legislations. The FPTCA defines a farmer as “an individual engaged in the production of farmers' produce by self or otherwise and includes farmer producer organisations; and farmers' produce includes all foodstuffs and dairy intended for human consumption in its natural or processed form”. For this Act, **'trade area'** is defined as “any area or location, place of production, collection and aggregation and includes silos, warehouses, cold storages or any other structures or places, but does not include premises within physical boundaries of markets and yards formed or deemed markets under the State APMC Acts”.

The definitions and the Act have empowering ramifications for those engaged in the production of food items. The FPTCA opens up the entire country as a farmers' market and allows the existing regulated market yards to operate and

compete in the open market. **From the perspective of the food system, it opens up horizontal and alternate market channels, and marketing services for farmers, thereby building enormous resilience in the food supply chain.**

On the other hand, efforts were also made to facilitate the trade at APMC markets. Earlier in **April 2016**, an electronic agricultural trade portal was launched to provide a common online trading mechanism to APMCs. Called the **eNAM (electronic National Agriculture Market)**, its stated mission is the “Integration of APMCs across the country through a common online market platform to facilitate pan-India trade in agriculture commodities”, with the idea of removing information asymmetry, promoting real-time price discovery along with timely online payment. As an online trade platform, eNAM now operates pan-India, networking 1,000 APMC markets in 18 states and 2 union territories. Funds are also provided to APMCs to augment their infrastructure facilities under Agriculture Infrastructure Fund (AIF). Now, the second set of 1,000 APMCs is being integrated with the eNAM platform.

The eNAM is also to link with the aforementioned GrAMs and has recently initiated a logistics module so that electronic trade can also be physically fulfilled with appropriate transport and warehousing options. The eNAM also provides electronic integration with the Negotiable Warehouse Receipt System (e-NWR) that is promoted by the country's Warehousing Development and Regulatory Authority (WDRA). The **e-NWR** (electronic format of the NWR) launched in September 2017 assures the quality and quantum of stock held, and enables produce owners, usually small and marginal farmers, to trade the negotiable receipts or take loans pledged against their stocked inventories. The Government supports an extensive pledge finance program for farmers, who can avail credit against such regulated warehouse receipts at highly subsidized rates. Such systems mitigate the need to undertake distress sales and add resilience among farmers to face any incremental shocks. This staggered off-loading of farm produce also

ensures a greater steadiness in supply, benefitting the food system.

Pledge loans and negotiable warehouse receipts are not equally feasible in the case of fresh perishable foods like fruits, vegetables, fish, etc. The more perishable produce types, like milk, must rely on a post-production refrigerated supply chain system. In the absence of an appropriately integrated cold-chain, the farmers' produce is unable to connect with national demand and their market is constrained to an immediate selling radius around production areas. This, in turn, dissuades higher productivity and production, or the adoption of sustainable economy-of-scale in other associated components of the food system. However, the demand for these high-value foods is rising and hence, the Government of India has been placing crucial importance on cold-chain development. **The minimum system standards for cold-chain infrastructure components were first put in place in 2015** and differentiated programs are in place to support modern cold-chain systems under the ministries, and departments in charge of horticulture, dairy, fisheries and food processing, as applicable. Extensive research and studies were conducted by the National Centre for Cold-chain Development, between 2014 and 2016, to provide suitable strategic direction for cold-chain development. Other studies were also conducted to assess the quantum of food loss, especially of perishables, so that the most appropriate mitigation efforts could be taken and to support the direction towards sustainability.

Two other policies expected to effect a visible change in the food system of the country are the **Farmers (Empowerment & Protection) Agreement on Price Assurance and Farm Services Act, 2020, and the Promotion of 10,000 Farmers Producers Organisations (FPOs) by 2024**. The Price Assurance & Farm Services (Promotion & Facilitation) Act, 2020 provides for multi-party agreements with the farmers for post-harvest price agreements as also for various farm services. This is expected to benefit the farmers by enabling them to produce based on market demand and also avail of new technologies

besides negotiating risks that originate from price fluctuations on account of post-harvest gluts. The support to FPOs has been a much-felt need to impart efficiency at both input and output management stages of the agricultural value chain, given that 86 percent of the farmers in India are small and marginal.

These market reforms have been supported by the much-needed **“Agriculture Infrastructure Fund (AIF)” set up in 2020. It is of the size of Rs.100,000 crores.** It will take care of the post-harvest infrastructure. Some important features of this Fund are i) an interest subvention of three percent and credit guarantee up to Rs.2 crores for a maximum period of 7 years; ii) convergence allowed with all schemes across ministries & state governments; iii) multiple eligible projects (across PHM infra & community farming assets); iv) loans available to FPOs, MSMEs, agribusinesses, etc., with a cap of one project per beneficiary. Further, as many as 24 public & private sector banks have been on board for priority sector lending under the scheme.

In 2015, the Reserve Bank of India (RBI) also amended its guidelines for Priority Sector Lending (PSL). **In the revised RBI Guidelines, issued on 23 April 2015,** post-harvest activities and coldchain were classified under agriculture. With this, the distinction between direct and indirect agriculture came to be dispensed with, and credit under Priority Sector Lending could include loans for all categories of post-harvest activities. This again indicated a more holistic approach to support agricultural development, including the food system.

The rollout of **Goods and Services Tax (GST) with effect from 1st July 2017** gave a boost to achieving a single market status in India and to attaining the 'One-tax One-market' status. Even so, to minimize the taxation impact on services carried out to prepare and market-fresh produce, the GST regime carried forward the recommendation to exempt tax services by way of pre-conditioning, i.e., sorting, grading, cleaning &

pre-cooling, waxing, retail packing, and labelling of fruits & vegetables, which does not change or alter the essential characteristics of the said fruits and vegetables. Therefore, preconditioning services, as well as ripening, loading, unloading transport, and warehousing of agricultural produce, remain exempt from GST.

In further support to drive a changing market ecosystem, past regulatory controls that were designed in times of deficit had to be addressed and urgent calls for the same were being made for more than a decade. In September 2020, the Government enacted amendments to the Essential Commodities Act, 1955 (ECA). The ECA had provided government officers the powers to control production, supply, and distribution of essential commodities, which included foodstuffs, by way of requiring stock limits, controlling permits, directing commodity prices, enforced selling of stock, etc. that consequently hampered the development of a free-market economy in the food system. The **Essential Commodities (Amendment) Act, 2020,** did away with these omnibus powers on foodstuffs and allowed such controls only during extraordinary events like war, famine, the natural calamity of grave nature, or extraordinary price rise. Further, even in such cases, pre-determined guidance is placed to make the level of control reasoned and transparent to stakeholders such that traders, exporters, and food processors, whose operations depended on the prearranged availability of stock, can plan for, and manage such eventualities. This is expected to even out the supply chain over space and time to the advantage of the food system.

There is a continued need to create additional capacity and modernize the food supply chain. The comprehensive set of assets, like integrated logistics, is a priority for enabling access to a wider one-nation market. Such infrastructure and business interests are largely attracted by incentivizing capital investment from the private (corporate) sector that is also expected to bring in the desired operational efficiencies. The package

of market reforms, allowing 100 percent FDI in the manufacture of food products and their trading, and 100 percent FDI in processing on the automatic route, will invite private sector investments, and strengthen India's food system.

In 2014, a separate infrastructure fund of the size of Rs.5,000 crores (USD 675 million) was also established under NABARD to provide credit at reduced interest rates for cold-chain and dry logistics infrastructure.

The food producers especially small & marginal farmers, who have a poor financial withholding capacity, are exposed to market risks since the agriculture markets cannot be perfect. Hence, there is an inevitable need for government support to enhance the resilience of both producers and consumers. The public procurement system that had been, for a long, providing some steady demand and succour during a market crisis also had some key inadequacies. There was more attention given to procurement of two kinds of cereals, namely wheat, and paddy, and procurement of other commodities like pulses, oilseeds, and millets were perfunctory. This was sought to be corrected, for which in **September 2018, the PM-AASHA Scheme was announced**, with a bouquet of options such as Price Support Scheme (PSS), Price Deficiency Payment Scheme (PDPS), and pilot Private Procurement & Stockist Scheme (PPSS). The interventions are intended to help mitigate market risks and allow for greater stability in the trade of various food items. Since then, the procurement of pulses and oilseeds as a percentage of total annual production has gone up substantively, enabling the build-up of buffer stock.

Another major risk to food producers is weather changes and the risks exist despite various weather advisory and alerting systems. Climate change has been exacerbating the challenge with its increased number of weather extremes. To compensate for losses arising from natural calamities, a flagship crop insurance scheme called **Pradhan Mantri Fasal Bima Yojana**

(PMFBY) was launched in 2016. It integrates multiple stakeholders on a single platform and applies uniformity across the country. A total of 10 insurance companies are linked as of date. While the premium rate is discovered through a transparent and competitive mechanism, the farmers pay only a fixed and low rate of premium (1.5, 2 & 5 percent respectively for Kharif, Rabi & commercial crops). It is the central & the state governments that bear the remaining premium on a 50:50 basis. The states and UTs are provided flexibility to run the scheme with a selection of additional risk covers. The insurance covers cereals, millets, pulses, annual horticultural crops, and oilseeds against losses arising from calamities like landslides, hailstorms, floods, droughts, pests infestations, cyclones, etc.

Various technologies (drones, smartphones, satellite remote sensing, etc.) are used for faster and more efficient estimation of crop losses, and to ensure early settlement of insurance claims. The insurance is voluntary for farmers and can be taken based on cropping season. It is clear that the PMFBY backstops to keep the production base financially resilient in the face of such disasters, thereby supporting quicker recovery from the supply chain disruptions that occur at the production end. **Since its inception in Kharif (South-West Monsoon-based season) and till Kharif 2020, the figures show demonstrable success**—the cumulative number of farmers' applications accepted are 2,702.1 lakhs, area insured is 2,356.5 lakhs ha., sum insured is Rs.9,56,171 crores, and the number of farmers' applications that benefitted is 758.6 lakhs. And, the cumulative farmers' share in the premium is only Rs.19,912 crores as against the gross premium of Rs.1,26,878 crores for this period. The claim ratio has been generally very high (for example, 79.7 percent in 2019-20) and the number of claims paid stands at Rs.90,192 crores for this entire period. **The advantage to the food system is that farmers are more secure in deciding to invest in technologies for higher yields.**

The supply chain of food also includes a wide array of food processors. In India, most food-

processing units are cottage-scale or micro-scale enterprises. These stakeholders in the food system do not have recourse to resources that were generally made accessible to large-scale food processors. There are approximately 2,50,000 such micro-processing units in the country, 66 percent of which are in rural areas and are estimated to be contributing 74 percent of employment in the food processing sector. It was necessary to support these units and make them resilient in a changing market environment that was placing demands on their operational capabilities. In June 2020, the government launched the **Prime Minister Formalization of Micro Food Processing Scheme (PMFME)** for a tenure of five years (2020-21 to 2024-25). With this, the Ministry of Food Processing Industries is to provide financial, technical, and business support to upgrade existing micro food processing enterprises. The Central Government has earmarked Rs.10,000 crores (approx. USD 1.4 billion) for this centrally sponsored scheme. The scheme encourages the 'One-District One-Product' approach in implementation, which will impart efficiency to the supply chain by enabling scales of operational economy.

Another game-changing initiative launched by the Government of India in September 2020 is the **Pradhan Mantri Matsya Sampada Yojana (PMMSY)**. With a tenure of five years and a total outlay of Rs. 20,050 crores (USD 2.73 billion), it targets the modernization and sustainable development of the fisheries sector. The program encompasses the entire gamut of the fisheries supply chain, covering inputs, production, post-harvest management, and market supply. To amplify the outcomes of PMMSY, the scheme is to be fostered by other ongoing schemes of ministries of shipping, food processing industries,

rural development, and agriculture. The program involves area-specific strategic development planning that promotes aquaculture, especially in northern India where the soil has turned saline and alkaline. It focuses on value chain aspects such as species diversification, accreditation and standardization of broodstock, blockchain for end-to-end traceability, laboratories to address disease, anti-biotic, and residue issues, development of entrepreneurship models, expansion of fisheries extension support services, and national level e-marketing. The desired outcomes are not merely the increase of sustainable fish production, productivity, and share in GDP, but also a decrease in the post-harvest loss from the current 25 percent to 10 percent, and an increase in domestic fish consumption from 5 kg to 12 kg per capita. **These outcome-focused objectives will contribute to building a higher level of resilience in the fishery food system.**

Various similar initiatives to enhance the productivity of the livestock and animal husbandry sector are under implementation. In September 2019, the Central Government brought forth a targeted and resurgent focus on making the livestock sector more resilient to disease with the launch of the **National Animal Disease Control Programme (NADCP) for controlling Foot & Mouth Disease (FMD) and Brucellosis**. This program has a total outlay of Rs.13,343 crores (USD 1.8 billion) for five years (2019-20 to 2023-24) for vaccinating 100 percent of cattle, buffalo, sheep, goat, and pig population for FMD, and 100 percent of bovine female calves, 4-8 months of age, for Brucellosis. The achievement under this program will have a deep impact on millions of livestock and livestock farmers.

The actions in this section have a direct impact on improving post-harvest management, minimizing food loss, and strengthening smallholders to mitigate risks (AT5). They also contribute to advancing livelihood and livelihood opportunities across the food system (AT4). Relating to the supply chain, these also ensure benefits that cut across AT1 to AT5.

Advancing Livelihoods in the Food System

Traditionally, the food system, like all the agricultural production systems, has also been primarily production-centric. Not just in efforts to enhance production and farm-level productivity but also in recording achievements, and growth. The metrics were output-focused, limited to tonnes of a commodity produced per unit of land or livestock or water body, the quantum of fertilizers used, the number of water resources created, the population of livestock, the capacity and number of warehouses created, and the like, all rooted in linear thinking. A systems approach with the measure of the outcome was not evident. More relevant measures could be tonnes of food delivered per unit of land, returns per unit of input, throughput increase and market expansion from logistics, metrics of food system sustainability, etc. Furthermore, farmers' welfare was considered synonymous with production growth, ignoring the fact that economic returns also depend on market dynamics and supply demand metrics. Growth measured in terms of food producers' income would automatically assimilate and necessitate a focus on specific outcomes from all other interventions concerning

productivity, resource use efficiency, and monetization efficiency of the produce. This is the new approach that the government is now adopting.

In February 2016, the Prime Minister of India set direction by visioning the doubling the income of farmers, and an **Inter-Ministerial Committee on Strategies for Doubling Farmers Income (DFI) was constituted in April 2016**. Its members were drawn from among policymakers, experts, researchers, and civil society, and the Committee addressed various concerns in agriculture and the food system. The watchword adopted by the DFI Committee was Efficiency for Sustainability, which was explained by saying that, **“Agriculture sector as a profession will become wholesome when the transition happens from food security to nutrition security for the consumers, extractive production system to sustainable production system for the ecology, and from a mere Green Revolution to a Farmers' Income Revolution or Income Revolution for the farmers - Good for the Farmer, Good for the Consumer and Good for the Planet”**.



The findings and recommendations of the DFI Committee were accepted by the Government of India and are now under various stages of implementation. Many of the recommendations were adopted concurrently, even before the submission of the final report by the Committee, which was released by the Ministry of Agriculture in September 2018.

The DFI Committee analyzed the growth of agriculture over the past seven decades and examined the results, the current status to set appropriate context and understanding of the pathway followed. It determined the need for a directional change where farmers' income is to be the basis in place of production alone. It set appropriate outcomes as growth targets.

The DFI Committee noted that farmers' income is not just dependent on volumes of production but is also directly related to the cost of production (including input costs) and that it was also dependent on the profitable monetization of their produce through effective market linkages. The Committee deliberated, in detail, the specific economic activities and topics that have a durable

impact on increasing farmers' income. Based on the NITI Aayog Study, it recommended the following seven sources of growth, the first six of which directly impact the food system of the country. These are:

- 01 Increase in crop productivity
- 02 Increase in livestock productivity
- 03 Increase in cropping intensity
- 04 Increase in crop diversification
- 05 Improvement in resource use efficiency/total factor productivity
- 06 Improvement in real remunerative prices on farmers' produce
- 07 The shift of surplus of manpower from agriculture to non-agriculture sector

A close examination of the first six sources of growth indicates the emphasis laid on the food system – a component of the larger agricultural system as a value chain. This approach, which entails the realization of higher volumes of a basket of produce based on market demand, is bound to strengthen the food system of the country in terms of nutrition security, safety and health, and quality along with cost-efficiency, for the benefit of all the consumers.

India, in its SDG-targeting exercise, had stated, “By 2030, to double agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets income and livelihoods...” The DFI Report advances and fast-tracks these stated commitments (AT 1 to AT5).

Other Support for Efficiency and Effectiveness

Deployment of Digital Technology: The use of satellite technology, geospatial technology and digital technology, including emerging technology, to support execution, and optimize the implementation of schemes & programs of the Government of India is becoming commonplace.

In September 2014, keeping in view that the horticulture sector is a major driver for the growth of Indian agriculture and that there was a need for reliable, and timely horticultural statistics, a project called **CHAMAN** (Coordinated Horticulture Assessment and Management using geo-informatics) was initiated under Mission for Integrated Development of Horticulture (MIDH) of the Ministry of Agriculture. CHAMAN leverages a combination of remote sensing, geospatial applications and field surveys for better horticulture assessment, and development.

Similarly, a program called **FASAL (Forecasting Agricultural Output using Space, Agro-meteorological and Land-based Observations)**

is being used to regularly generate crop forecasts at district/state/national level for nine major crops of the country for the Ministry of Agriculture. The procedures for this purpose have been developed by the Space Applications Centre, ISRO. The assessment relies upon both optical and microwave remote sensing data for rainfall, remote sensing vegetation index & moisture adequacy index for crop acreage estimation, crop condition assessment, and production forecasting. In the year 2017-18, a total of 17 forecasts were generated for crops such as jute, Kharif rice, sugarcane, cotton, rapeseed and mustard, Rabi sorghum, wheat, Rabi pulses, and Rabi rice.

To provide near real-time information on prevalence, severity level and persistence of agricultural drought at state/district/sub-district level, a project called the National Agricultural Drought Assessment and Monitoring System (NADAMS) has been under implementation.

NADAMS has been developed by National Remote Sensing Centre (NRSC) and currently, it covers 17 states of India, which are predominantly agriculture-based, and are drought-vulnerable (Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, and West Bengal).

To support the crop insurance schemes with a remote-sensing-based index for index-based insurance, a project called **KISAN (Crop Insurance)** using Space technology and geo-informatics was launched in **October 2015**. The project envisages using high-resolution remote sensing data from satellites and UAVs for optimum crop cutting experiments, planning and improving yield estimation.

To promote crop intensification under the NFSM, experiments for mapping and monitoring post-Kharif rice fallow lands using satellite remote sensing and GIS technologies are also underway. It is estimated that an extent of 12 million hectares of post-Kharif fallows is available with adequate moisture to support the cultivation of pulses and oilseeds cultivation, as also of millets. This



approach has been identified as a critical component in the nation's missions of promoting pulses and oilseeds. Within the last 4 years, an estimated one million hectares of such fallow has been put to use. Satellite-based wind vector data products for weather forecasting, cyclone detection and tracking services are also initiatives taken by the Government of India.

Under the **Digital India** program which has nine pillars, NeGP-A (National electronic Governance Plan for Agriculture) is an important one. Launched initially in 2010-11, from 2014-15, it has been extended to the entire country. Under this, the Ministry of Agriculture has rolled out several farmer-friendly ICT initiatives— websites, portals, mobile apps, etc. Farmers with different levels of access, namely, basic phones, smartphones and the internet, have been enabled to use digital technology. For those with none of these facilities and who prefer direct communication, a system of Call Centres called Kisan Call Centres is available which can be accessed using a toll-free number. In addition, Common Service Centres (CSCs) are in operation across the country near the farm gates.

The Union Ministry of Agriculture is now focussing on a **Digital Stack** as a key enabler for online marketplaces and “Smart Agriculture”. The key features of this include i) a digital AgriStack built on the foundation of Farmers' Database; ii) database linkage to state land records and landholdings' GIS data; iii) data standardization for onboarding information from satellite imagery, IoT devices and databases in both private & public domains. Building a model for monetization of data to impart sustainability is also being contemplated.

These initiatives are aimed at sharing real-time data and information with the farmers to enable them to negotiate production and post-production risks, minimize both production and income losses.

There also are several laudable initiatives by the states/UTs. One such initiative is the mobile-app-

based Crop Survey tool rolled out by the Government of Karnataka. This enables the farmers to upload the status of the standing crop of their geo-fenced farms themselves. This has generated more accurate data on the area under different crops in comparison to the conventional system of eye-estimates that the State Revenue Department used to undertake. Such accuracy is good for arriving at the crop area and production status relating to various crops and understanding the food system more appropriately.

Likewise, several states have strengthened their meteorological infrastructure at a decentralized level and have captured weather parameters at regular intervals. This data is fed into a central server and subjected to data analytics, and interpretation for dissemination of weather forecasts to the farmers. This 'in-advance' information is useful for the farmers in negotiating production & income risks.

Agricultural Extension: This has always played a critical role in the transfer of technology from the laboratories to the land. The nature of extension has undergone constant change since the launch of the “Grow More Food Campaign” immediately after independence, transitioning through several stages post the GR, namely Lab-to-Land (1979), Training & Visit system (the 1980s to late 90s), etc. Largely, all these were production-centric. The adoption of ATMA (Agricultural Technology Management Agency) in 2005-06 across the country with 700 KVKs providing the technology backup support has introduced a more serious approach to value-chain-based extension. However, since the recent years and DFI's strong emphasis on reorienting agriculture as an enterprise, the extension system is being reoriented to practise a market-led approach. The new paradigm includes extension machinery that optimally blends manpower and digital technology, encompasses all sub-sectors of the agricultural sector, not crops alone, and facilitates concerted efforts by government, private and non-government organizations.

Extension of KCC and Supplementary Income:

In 2019, the Kisan Credit Card (KCC) Scheme, earlier linked to crops, was extended to farmers in animal husbandry and 2020 to fishers, enlarging the support to a more diverse food system.

Furthermore, in February 2019, the **Pradhan Mantri Kisan Samman Nidhi scheme (PM-KISAN)** was launched, which provides land-owning farmers with monetary support as supplementary income. This is paid directly to their bank accounts in three equal instalments annually. While not specific to the food system, this supplemental income supported a great number of food producers in the distressing situation caused by the COVID-19 pandemic and will, in normal times, continue to meet their additional financial needs.

Focus on the Cooperatives: In 2021, to bring a resurgent focus to the Cooperatives sector, the Government of India established a dedicated **Ministry of Cooperatives**. One can now expect reform-based rejuvenation of the cooperative sector in promoting a more resilient food system in particular. Already various schemes are being introduced by the National Cooperative Development Corporation (NCDC) to ease credit availability and other associated support to fast-track the digitization of primary cooperative societies, build entrepreneurship capacity, and

support technology induction in the dairy and fisheries sector, each of which complements government schemes being implemented by other ministries, and departments.

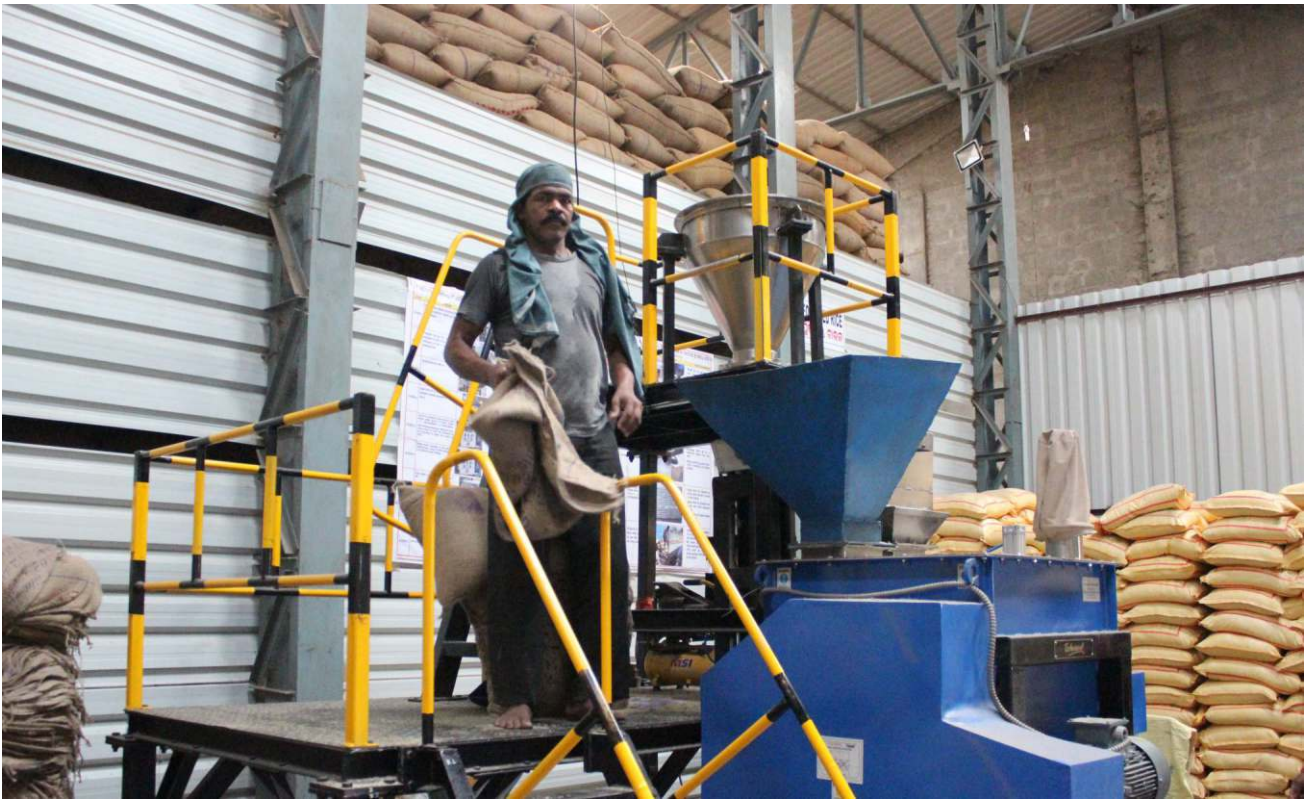
Public sharing and Accountability: The programs and schemes implemented by the Government of India are hosted on dedicated web portals with dashboards and a pan-India database that is regularly updated. This enables transparent public dissemination of the information, helps in monitoring implementation and sets public expectations of outcomes.

The Comptroller and Auditor General of India (CAG) is one of the institutions that evaluate the implementation of Central Government programs and expenditures. The CAG report is taken seriously whenever various systemic inefficiencies, delays and deficiencies in such implementation, are assessed. Additionally, third-party impact evaluations are a norm for the programs and schemes being implemented and are disseminated for public consumption and utilized for planning course corrections.

These governance systems ensure that the country's commitment to a robust food system is a public commitment and therefore, remains on track.

A systems approach that focuses on system-wide outcomes, through convergence and dovetailing of resources, with appropriate monitoring mechanisms, is evident. The Government of India has initiated a holistic set of initiatives that leverage modern and emerging technologies as well as consolidate piecemeal initiatives that support various aspects of the food system and support the themes considered under UNFSS 2021 (AT 1 to AT5).

Annotations



WFP India

A panoply of policies, programs and schemes, related to overall agricultural development & growth, and the food system, are implemented in India to provide incremental gains in their course. However, for brevity, the above sections discuss those that signify a higher impact through means of disruption, effecting convergence, the amalgamation of initiatives or offering a transformation by providing a new focus or direction for the functioning of the food system.

Several other policies and actions also have an impact on agriculture and allied sectors such as adopting the WTO agreement, committing to SDGs, Paris agreement relating to climate change, international cooperation through Joint Agricultural Working Groups, region-specific initiatives, localized sector-specific programs, solarized applications like irrigation pumps, employment guarantee programs, income support programs, digitalization of agriculture, funds to support agricultural tools, infrastructure and R&D, interventions to facilitate railway, waterway and airway connectivity, and more.

Being an agrarian society, many of India's socio-economic development and welfare activities inherently converge on the associated stakeholders, including the food system. However, for purpose of this paper, the discussion touches on those that are primarily food system-related and largely specific to the Government of India. However, all these have pan-India coverage and also influence state government initiatives that further the cause of a healthy food system.

The policies, actions and initiatives of the Government of India mentioned in this discussion paper are, therefore, not exhaustive, nor are they complete. The paper intends to narrate the evolution of the food system in the country and the direction taken for sustaining the pathway well beyond 2030. The scale and scope of impact of the discussed interventions are inherently large, given the backdrop of India. There does exist scope for adaption and adoption of these initiatives for appropriate relevance in other countries to match their circumstances.

The UNFSS can consider the comprehensive detailing of schemes and programs, categorized by outcomes, to compile templates that can be quickly adopted by others. Similarly, a global level monitoring and impact evaluation group may be considered to assist the implementation of schemes. This will also contribute to knowledge sharing, albeit in a uniform and standardized manner, under the auspices of the United Nations (UN). Due consideration may also be given to dovetailing resources of various arms of the UN to assist LDCs to indigenise and adapt select, and exemplary actions and policies from other countries.

The food system impacts all humankind at multiple levels which cannot remain partial to merely think global to act local, but need to think global and also act global, as inter-linkages across the continents get strengthened. The UNFSS 2021 and the five Action Tracks synthesised for it, bring to fore this urgent need for greater collaboration, cooperation, and global action. Interventions must address the outcomes that encourage a supportive mindset or a value system that promotes an ecosystem where all stakeholders in the food system win.

Annexure

Annexure I:

Acronyms

AAY	: Antyodaya Anna Yojana	CAG	: Comptroller and Auditor General of India
AIBP	: Accelerated Irrigation Benefit Project	CCSAMMN	: Climate Change and Sustainable Agriculture: Monitoring, Modelling and Networking
AIF	: Agriculture Infrastructure Fund	CHAMAN	: Coordinated Horticulture Assessment and Management using Geo-informatics
AMIF	: Agriculture Market Infrastructure Fund	CSC	: Common Service Centres
ANBC	: Adjusted Net Bank Credit	CWC	: Central Warehousing Corporation
APY	: Atal Pension Yojana	DA&FW	: Department of Agriculture & Farmers Welfare
APC	: Agricultural Price Commission	DBT	: Direct Benefit Transfer
APEDA	: Agricultural and Processed food products Export Development Authority	DCPs	: District Contingency Plans
APMC	: Agricultural Produce Marketing Committee	DCCS	: District Central Cooperative Bank
AT	: Action Track	DDP	: Desert Area Development Programme
ATMA	: Agricultural Technology Management Agency	DFI	: Inter-Ministerial Committee on Doubling Farmers Income
BPL	: Below Poverty Line	DPAP	: Drought Prone Area Programme
CACP	: Commission on Agricultural Costs and Prices	ECA	: Essential Commodities Act

EGS	: Education Guarantee Scheme	MGNREGA	: Mahatma Gandhi National Rural Employment Guarantee Act
e-NAM	: Electronic National Agricultural Market	MIDH	: Mission for Integrated Development of Horticulture
e-NWR	: Electronic Negotiable Warehouse Receipt	MIS	: Market Intervention Scheme
FASAL	: Forecasting Agricultural output using Space, Agro meteorological and Land based observations	MoFPI	: Ministry of Food Processing Industries
FCI	: Food Corporation of India	MPRNL	: Monitoring of Pesticide Residues at National Level
FMD	: Foot and Mouth Disease	MOVCD	: Mission Organic Value Chain in North Eastern Region
FPO	: Farmers Producers Organization	MSME	: Micro, Small and Medium Enterprise
FPS	: Fair Price Shops	NABARD	: National Bank for Agriculture & Rural Development
FPTCA	: Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020	NADAMS	: National Agricultural Drought Assessment and Monitoring System
FSSAI	: Food Safety and Standards Authority of India	NADCP	: National Animal Disease Control Programme
GrAMs	: Gramin Agricultural Markets	NAFED	: National Agricultural Cooperative Marketing Federation of India
GST	: Goods and Services Tax	NBHM	: National Bee Keeping and Honey Mission
HMNEH	: Horticulture Mission for North East and Himalayan States	NCCD	: National Centre for Cold-chain Development
HYVP	: High Yielding Variety Program	NCDC	: National Cooperative Development Corporation
IAAP	: Intensive Agriculture Area Programme	NDDB	: National Dairy Development Board
IADP	: Intensive Agricultural District Programme	NDC	: National Development Council
ICDS	: Integrated Child Development Services	NeGP-A	: National electronic Governance Plan for Agriculture
ISO	: International Organization for Standardization	NFSA	: National Food Security Act
IWDP	: Integrated Watershed Development Programme	NFSM	: National Food Security Mission
JAM	: Jan-Dhan Aadhar Mobile	NITI	: National Institute for Transforming India
JDY	: Jan Dhan Yojana	NICRA	: National Initiative on Climate Resilient Agriculture
KCC	: Kisan Credit Card	NMEO	: National Mission on Edible Oil
LDCs	: Less Developed Countries	NMH	: National Horticulture Mission
MCP	: Multiple Cropping Programme		
MDP	: Mid Day Meal		

NMM	: National Nutrition Mission	PP	: Procurement Price
NMSA	: National Mission on Sustainable Agriculture	PSF	: Price Stabilization Fund
NP-NSPE	: National Programme of Nutritional Support to Primary Education	PSL	: Priority Sector Lending
NRAA	: National Rainfed Area Authority	RAD	: Rainfed Area Development
NWDPRA	: National Watershed Development Programme in Rainfed Areas	RBI	: Reserve Bank of India
ONORC	: One Nation One Ration Card scheme	RPDS	: Revamped Public Distribution System
PACSS	: Primary Agricultural Cooperative Societies	RRB	: Regional Rural Bank
PKVY	: Paramparagat Krishi Vikas Yojana	SAU	: State Agricultural University
PM-AASHA	: Pradhan Mantri Annadata Aay Sanrakshan Abhiyan	SFDA	: Small Farmers Development Agency
PMFBY	: Pradhan Mantri Fasal Bima Yojana	SHC	: Soil Health Card
PMFME	: PM Formalization of Micro Food Processing Scheme	SMAF	: Sub-Mission on Agro-Forestry
PMGSY	: Pradhan Mantri Gram Sadak Yojana	SMAM	: Sub-Mission on Agricultural Mechanization
PMKMY	: Pradhan Mantri Kisan Maandhan Yojana	TPDS	: Targeted Public Distribution System
PMKSY	: Pradhan Mantri Krishi Sinchayi Yojana	UNCRC	: United Nations Convention on Rights of the Child
PM-KISAN	: Pradhan Mantri Kisan Samman Nidhi scheme	UNFCCC	: United Nations Framework Convention on Climate Change
PMMSY	: Pradhan Mantri Matsya Sampada Yojana	UNFSS	: The United Nations Food System Summit
PMUY	: Pradhan Mantri Ujjwala Yojana	VPO	: Village Producers Organisation
POSHAN	: Prime Minister's Overarching Scheme for Holistic Nutrition	WDC	: Watershed Development Component
		WDRA	: Warehousing Development Regulatory Authority

Annexure II

Government of India's Important Policies/Actions/Initiatives Impacting the Food System

A SN	B Ministry / Department / Agency	C Name of the Policy/ Action /Initiative	D Period Active		E Major Objectives/Description in Brief	F Action Tracks that fit the Policy/Action/Initiative				
			D1	D2		G1	G2	G3	G4	G5
			Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
1. Ministry of Agriculture and Farmers' Welfare (MoAFW)										
1.1 Department of Agriculture, Co-operation and Farmers Welfare (DAC&FW)										
1.1.1	DAC&FW	The National Cooperative Development Corporation Act	1962		To provide for the incorporation and regulation of a corporation for planning and promoting programs for the production, processing, marketing, storage, export, and import of agricultural produce, foodstuffs, industrial goods, livestock, certain other commodities and services on co-operative principles and for matters connected therewith or incidental thereto.				X	X
1.1.2	DAC&FW	The Seeds Act	1966		To provide for regulating the quality of certain seeds for sale, and for matters connected therewith	X	X	X		X
1.1.3	DAC&FW	The Insecticides Act	1968		To regulate the import, manufacture, sale, transport, distribution, and use of insecticides to prevent risk to human beings or animals, and for matters connected therewith.	X		X		
1.1.4	DAC&FW	The protection of plant varieties and Farmer's Right Act	2001		To provide for the establishment of an effective system for the protection of plant varieties, the rights of farmers and plant breeders, and to encourage the development and cultivation of new varieties of plants.				X	
1.1.5	DAC&FW	MANAGE	1987		To facilitate the acquisition of managerial and technical skills by Extension Officers, Managers, Scientists and Administrators in all sectors of agricultural economy to enable them to provide most effective support and services to farmers and fishermen for practicing Sustainable Agriculture			X	X	X
1.1.6	DAC&FW	National Council for Cooperative Training			To mainly organize need-based training programs and facilitate the process of human resource development for cooperatives for the country.				X	X
1.1.7	DAC&FW	CCS-NIAM	1988		A premier national-level institution to offer specialized training, research, education, and consultancy in the field of Agricultural Marketing.	X		X	X	X
1.1.8	DAC&FW	The Multi-State Cooperative Society Act	2002		It substituted the Multi-State Cooperative Societies Act of 1984. The Act was passed in 2002 to facilitate the incorporation, functioning, and organization of cooperative societies that have jurisdiction in more than one state. The Act ensures voluntary formation and proper operation of the Multi-State Cooperative Societies that are member-driven institutions, and they are based on self-help and mutual aid. The MSCS Act of 2002, along with MSCS Rules 2002, governs the compliance requirement of the Multi-State Cooperative Society (MSCS).				X	X
1.1.9	DAC&FW	National Agricultural Cooperative Marketing	1958		To promote Cooperative marketing of agricultural produce to benefit the farmers.				X	X

		Federation of India (NAFED)								
1.1.10	DAC&FW	The Coconut Development Board Act	1979		An act to provide for the development under the control of the Union of the Coconut Industry and for matters connected therewith.				X	X
1.1.11	Coconut Development Board, DAC&FW	Coconut palm Insurance Scheme			<ul style="list-style-type: none"> a. Assist coconut growers in insuring coconut palms, against natural and other perils. b. Provide timely relief to farmers, who suffer income loss due to the sudden death of palms. c. Minimize risk and encourage replanting and rejuvenation to make coconut farming remunerative. 			X	X	X
1.1.12	DAC&FW	Agricultural Produce Marketing (Development and Regulation) Act, 2003	2003	2017	To provide for the development of efficient marketing system; promotion of agri-processing and agricultural exports; and lay down procedures and systems for putting in place an effective infrastructure for the marketing of agricultural produce.	X			X	X
1.1.13	DAC&FW	Model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act	2017		<ul style="list-style-type: none"> a. To provide for geographically restriction-free trade transaction of agricultural produce including livestock across the State/Union Territory (UT) and country; b. To give freedom to the agriculturists to sell their products across time and space; c. To enhance transparency in trade operations and price settlement mechanism through the adoption of electronic and other innovative forms of technology; d. To promote the emergence of multiple channels for competitive marketing, agri-processing, and agricultural export; e. To encourage investments in the development of markets and marketing infrastructure 				X	X
1.1.14	DAC&FW	Farmers Produce Trade and Commerce (Promotion and Facilitation), Rules, 2020	2020		To provide competitive alternative channels for sale and purchase of farmers; produce, to promote barrier-free inter and intra state trade and commerce of farmers' produce outside the physical markets and deemed markets notified under various State Agricultural Market legislatures, and to provide a facilitative framework for electronic trade and matters related to		X		X	X
1.1.15	DAC&FW	Model Contract Farming (Promotion & Facilitation) Act,	2018		To provide for improved production and marketing of agricultural produce and/or livestock and/or its product through holistic contract farming and to facilitate the contracting parties to develop mutually beneficial and efficient contract farming system, and also promote services contract, by putting in place a friendly and effective institutional mechanism and conducive regulatory and policy framework for contract farming and services contract or such other contracts and lay down procedures and systems and the matters connected therewith and incidental thereto.				X	X
1.1.16	DAC&FW	The Farmers (Empowerment	2020		To provide for a national framework on farming agreements that protects and	X			X	X

		and protection) Agreement on Price Assurance and Farm Services Rules, 2020			empowers farmers to engage with agri-business firms, processors, wholesalers, exporters, or large retailers for farm services and sale of future farming produce at a mutually agreed remunerative price framework in a fair and transparent manner.					
1.1.17	DAC&FW	Formation and Promotion of 10000 Farmer Producer Organization	2020	2023-24	To provide a holistic and broad-based supportive ecosystem to form new 10,000 FPOs to facilitate the development of vibrant and sustainable income-oriented farming and for overall socio-economic development and wellbeing of agrarian communities.				X	X
1.1.18	DAC&FW	Gramin Agricultural Markets (GrAMS)	2018		<ol style="list-style-type: none"> 1. First-mile aggregation/pooling of small lots to organise the supply chain 2. Integration with the national One India market. 3. Community hubs to support local direct retail and improved farmer-consumer interface. 4. Independent operations kept outside the ambit of regulated APMC market network. 				X	X
1.1.19	DAC&FW	Agri-Market Infrastructure Fund (AMIF) for development and up-gradation of Agricultural Marketing Infrastructure in Gramin Agricultural Markets (GrAMs) and APMC Markets	2018		<ol style="list-style-type: none"> a. To improve marketing and supporting infrastructure in GrAMs as well as in regulated wholesale markets b. Support development of GrAMs as Farmer-Consumer Direct Markets c. To facilitate aggregation of the produce in GrAMs and establish forward linkages with the secondary markets in the hub and spoke mode and also in Public-Private Partnership (PPP) mode as well as to establish linkage with the processors, organized retailers, and consumers including that with Mega Food Parks and Integrated Cold-chain, etc, d. To modernize the marketing, processing, storage, and ancillary infrastructure/logistics including better assaying facilities in 585 regulated APMC markets to enhance marketing efficiency and promote inter-mandi and inter-State trade by developing adequate logistics. 				X	X
1.1.20	DAC&FW	Promotion of National Agriculture Market (NAM) through Agri-Tech Infrastructure Fund (ATIF) or e-NAM	2016		<ol style="list-style-type: none"> a. To integrate markets first at the level of the states and eventually across the country through a common online market platform, to facilitate pan - India trade in agricultural commodities; b. To streamline marketing/transaction procedures and make them uniform across all markets to promote the efficient functioning of the markets; c. To promote better marketing opportunities for farmers/sellers through online access to more buyers/markets, removal of information asymmetry between farmer and trader, better and real-time price discovery based on actual demand and supply of Agri commodities, transparency in the auction process, prices commensurate with the quality of produce, online payment, etc. that contribute to marketing efficiency; d. To establish quality assaying systems for quality assurance to promote informed bidding by buyers; and 				X	X

					e. To promote stable prices and availability of quality products to consumers.					
1.1.21	DAC&FW	Integrated Scheme for Agricultural Marketing (ISAM)	2014	XII plan period	To provide farmers with access to competitive markets with adequate infrastructure including cold-chain logistics, to enable them to realise better prices on the one hand and provide nutritious food to consumers at stable and affordable prices on the other. The ISAM has the following five sub-schemes: a. Agricultural Marketing Infrastructure (AMI) [the existing schemes of Grameen Bhandaran Yojana (GBY) and Development/Strengthening of Agricultural Marketing Infrastructure, Grading and Standardization (AMIGS) will be merged as AMI] b. Marketing Research and Information Network (MRIN) c. Strengthening of Agmark Grading Facilities (SAGF), d. Agribusiness Development (ABD) through Venture Capital Assistance (VCA) and Project Development Facility (PDF) and e. Choudhary Charan Singh National Institute of Agriculture Marketing (NIAM)				X	X
1.1.22	DAC&FW	Market Intervention Scheme and Price Support Scheme			To provide remunerative/guaranteed prices to the oilseeds, cereal, copra, sugarcane and raw jute. Pulses & cotton growers in case of price fall below the Minimum Support Price (MSP) declared by Government of India in both crop seasons i.e., Rabi & Kharif every year				X	
1.1.23	DAC&FW	Modified National Agricultural Insurance Scheme (MNAIS)			To provide insurance coverage and financial support to the farmers in the event of prevented sowing and failure of any of the notified crops as an effect of natural calamities, pests, and diseases, to support the farmers to adapt progressive farming practices, high-value inputs and better technology in Agriculture, to help stabilize farm incomes mainly in disaster years				X	
1.1.24	DAC&FW	National Agricultural Insurance Scheme (NAIS)- revamped as PMFBY	1999-2000		The National Agricultural Insurance Scheme (NAIS) was introduced from 1999-2000 replacing the erstwhile Comprehensive Crop Insurance Scheme (CCIS). The main objective of the scheme is to protect the farmers against crop losses suffered on account of natural calamities such as drought, flood, hailstorm, cyclones, fire pests, and diseases.				X	
1.1.25	DAC&FW	Weather Based Crop Insurance Scheme (WBCIS)			To provide insurance protection to the farmers against adverse weather incidence, such as deficit and excess rainfall, high or low temperature, humidity, etc. which are deemed to impact adversely the crop production. It has the advantage to settle the claims within the shortest possible time.				X	
1.1.26	DAC&FW	Pradhan Mantri Fasal Bima Yojana	2020		PMFBY aims at supporting sustainable production in the agriculture sector by way of: a. Providing financial support to farmers suffering crop loss/damage arising out of unforeseen events. b. Stabilizing the income of farmers to ensure their continuance in farming.				X	

					<p>c. Encouraging farmers to adopt innovative and modern agricultural practices.</p> <p>d. Ensuring credit worthiness of the farmers, crop diversification and enhancing growth and competitiveness of agriculture sector besides protecting the farmers from production risks.</p>					
1.1.27	DAC&FW	Interest subsidy for short term credit to farmers			Support and build resilience among farmers.			X		
1.1.28	DAC&FW	Draft National Disaster Mitigation Plan			To address localised disaster events like cold wave/frost, etc, location-specific mitigation plans are to be drawn up by the concerned State Governments instead of a national-level plan.	X			X	
1.1.29	DAC&FW	m-Kisan portals	2013		The project conceptualized, designed and developed in-house within the Department of Agriculture & Cooperation USSD has widened the outreach of scientists, experts and Government officers posted down to the Block level to disseminate information, give advisories and provide advisories to farmers through their mobile telephones. SMS Portal was inaugurated by the Hon'ble President of India on July 16, 2013, and since its inception, nearly 327 crore messages or more than 1044 crore SMSs have been sent to farmers throughout the length and breadth of the country. These figures are rising ever since.				X	
1.1.30	DAC&FW	National Project on Management of Soil Health and Fertility (NPMSHF)	2008-09		To facilitate and promote Integrated Nutrient Management (INM) through judicious use of chemical fertilizers, including secondary and micro nutrients, in conjunction with organic manures and bio-fertilizers, for improving soil health and its productivity.	X		X		
1.1.31	DAC&FW	National Project on Organic Farming (NPOF)	since 10th five-year plan		<p>a. Promotion of organic farming in the country through technical capacity building of all the stakeholders including human resource development, technology development, transfer of technology, promotion and production of quality organic and biological inputs, awareness creation and publicity through print and electronic media.</p> <p>b. Statutory quality control requirements of bio-fertilizers and organic fertilizers under the Fertilizer (Control) Order (FCO), 1985, including revision of standards and testing protocols keeping in view the advances in research and technology and bringing remaining organic inputs under a quality control regime.</p> <p>c. Capacity building for soil health assessment, organic input resource management and market development.</p>	X		X		
1.1.32	DAC&FW	PM Kisan Maandhan Yojana	2019		The Pradhan Mantri Kisan Maan-Dhan Yojana (PM-KMY) provides for an assured monthly pension of Rs. 3000/- to all land holding Small and Marginal Farmers (SMFs), whether male or female, on their attaining the age of 60 years.	X	X		X	
1.1.33	DAC&FW	Rashtriya Krishi Vikas Yojana- Remunerative Approaches for Agriculture and	2014	2017	<p>The main objective of Rashtriya Krishi Vikas Yojana is</p> <p>a. to develop farming as the main source of economic activity.</p>	X		X	X	X

		Allied sector Rejuvenation (RKVY-RAFTAAR)			<ul style="list-style-type: none"> b. Some of the objectives also include Risk mitigation, strengthening the efforts of the farmers along promoting agri-business entrepreneurship through the creation of agri-infrastructure. c. Providing all the states with autonomy and flexibility in making plans as per their local needs. d. Helping farmers in increasing their income by encouraging productivity and promoting value chain addition linked production models. e. To reduce the risk of farmers by focusing on increasing income generation through mushroom cultivation, integrated farming, floriculture, etc. f. Empowering the youth through various skill development, innovation, and agri-business models. 					
1.1.34	DAC&FW	RKVY- Agri-Business Incubators (R-ABI)			<ul style="list-style-type: none"> a. To achieve "Lab to land" - new technology /varieties to farmers. b. To promote innovation, entrepreneurship and business creation. c. To create employment opportunities for youth in agriculture d. To facilitate technical, legal, financial, intellectual property services to agripreneurs e. To promote R&D, commercial technology transfer. f. Capacity building of existing agri-incubator 				X	
1.1.35	DAC&FW	Participatory Guarantee System of India: Operational Manual for Domestic Organic Certification (national Mission for Sustainable Agriculture)	2015		Participatory Guarantee System (PGS) is a quality assurance initiative that is locally relevant, emphasize the participation of stakeholders, including producers and consumers and operate outside the framework of third-party certification		X	X	X	
1.1.36	DAC&FW	Extending Green Revolution to Eastern India under RKVY	2011-12		<ul style="list-style-type: none"> a. To increase production & productivity of rice and wheat by adopting the latest crop production technologies; b. To promote cultivation in rice fallow area to increase cropping intensity and income of the farmers; c. To create water harvesting structures and efficient utilization of water potential; and d. To promote post-harvest technology and marketing support 	X	X	X	X	X
1.1.37	DAC&FW	PM Kisan Samman Nidhi	2018		To supplement the financial needs of all landholding farmers' families in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income as well as for domestic needs. Under the Scheme, an amount of Rs.6000/- per year is released by the Central Government online directly into the bank accounts of the eligible farmers under Direct Benefit Transfer mode, subject to certain exclusions	X	X	X		
1.1.38	DAC&FW	Pradhan Mantri Annadata Aay Sanrakshan	2018		Aimed towards ensuring remunerative prices to farmers for their produce. The new Umbrella Scheme is comprised of Price Support Scheme, Price Deficiency	X	X		X	

		Abhiyan (PM-AASHA)			Payment Scheme and Pilot of Private Procurement and Stockist Scheme. This step aims at protecting the farmers' income which is expected to go a long way towards the welfare of farmers.					
1.1.39	DAC&FW	National Agroforestry Policy	2014		Encourage and expand tree plantation in complementarity and integrated manner with crops and livestock to improve productivity, employment, income, and livelihoods of rural households, especially the smallholder farmers.		X	X	X	
1.1.40	DAC&FW	'Green Revolution - Krishonnati Yojana'	2017-18	2019-20	The Umbrella scheme comprises of 11 Schemes/Missions to develop the agriculture and allied sector holistically and scientifically to increase the income of farmers by enhancing production, productivity and better returns on produce.	X	X	X	X	X
1.1.40.1	DAC&FW	(1) Mission for Integrated Development of Horticulture (MIDH)	2014		Subsuming individual schemes on horticulture for strategic and integrated approach- a. Promote holistic growth of horticulture sector, including bamboo and coconut through area-based & regionally differentiated strategies, which includes research, technology promotion, extension, post-harvest management, processing and marketing, in consonance with comparative advantage of each state/region and its diverse agro-climatic features; b. Encourage aggregation of farmers into farmer groups like FIGs/FPOs and FPCs to bring economy of scale and scope. c. Enhance horticulture production, augment farmers, income and strengthen nutritional security; d. Improve productivity by way of quality germplasm, planting material and water use efficiency through Micro Irrigation. e. Support skill development and create employment generation opportunities for rural youth in horticulture and post-harvest management, especially in the cold-chain sector.	X	X	X	X	X
1.1.40.1.1	DAC&FW	a) National Horticulture Mission (under MIDH)	2005-06		To enhance horticultural production and improve nutritional security and income support to farm households and others through area-based regionally differentiated strategies	X	X		X	X
1.1.40.1.2	DAC&FW	b) Horticulture Mission for NE and Himalayan States (under MIDH)	2001-02		a. To improve the production and productivity of horticulture crops by harnessing the potential of the region. b. Special emphasis on "Low Volume, High Value, Less Perishable Horticulture Crops". A horticulture-based farming system to be developed, thereby providing viable and ample opportunities for employment, especially for women, besides improving the productivity of the land.	X	X		X	X
1.1.40.1.3	DAC&FW	c) National Horticulture Board (under MIDH)	1984		Development of Commercial Horticulture through Production and Post-Harvest Management of Horticulture Crops; Capital Investment Subsidy Scheme for construction/ expansion/ modernization of Cold Storages/Storages of Horticulture Products; Technology Development and Transfer for promotion of Horticulture; Market Information Scheme for horticulture Crops, Horticulture Promotion Services / Expert Services,	X	X	X	X	X

					Nursery management, and Accreditation and Rating of Plant Nurseries (fruits, spices, flowers, etc.)					
1.1.4 0.1.4	DAC&FW	d) Coconut Development Board								
1.1.4 0.1.5	DAC&FW	e) Central Institute of Horticulture (under MIDH)								
1.1.4 0.8		Market Information Service Scheme for Horticulture Crops			<ul style="list-style-type: none"> a. To generate information on wholesale prices, arrivals, and trends in various markets of the country for important fruits, vegetables & flowers, etc and also on retail prices for an increased number of selected markets b. To analyse the trends of arrivals, prices and other related factors of the selected fruit and vegetables such as stock in storage, crop stand, etc and generate Market Intelligence Reports c. To establish a nationwide communication network for speedy collection and dissemination of market information data for its efficient and timely utilization. d. To prepare farmers' advisory and issue the same for the benefit of producer farmers especially by making use of statistics so generated and collected for optimizing returns to the producers e. To collect and compile horticulture database and strengthen the existing system of 'Crop Estimation Survey-Fruits & Vegetables' (CES-F&V) as far as possible Information dissemination through publicity, advertisements, films, printed literature, etc. f. Development of technology packages in the electronic form to be shared through IT 				X	X
1.1.4 0.9		Cluster Development Program			<ul style="list-style-type: none"> a. Address the concerns of the horticulture value chain from pre-production, production, postharvest management and value addition to logistics, marketing and branding, in an integrated manner for enhancing competitiveness in the domestic and export market. b. Reduce harvest and post-harvest losses by developing/ expanding/ upgrading the infrastructure for post-harvest handling of produce, value addition and market linkages. c. Facilitate the introduction of innovative technologies and practices to help enhance the global competitiveness of focus cluster crops. d. Facilitate the dovetailing of resources, including the convergence of various government schemes to entrench stakeholders in the global value chains. e. Build the capacity of stakeholders and enhance farmers' income through cluster-specific interventions, including brand promotion 	X	X		X	X

1.1.40 .2.1	DAC&FW	(2.a) National Food Security Mission (NFSM)	2007-19	2019-20	<ul style="list-style-type: none"> a. Increasing the production of rice, wheat and pulses through (i) area expansion and productivity enhancement, b. restoring soil fertility and productivity, c. Creating employment opportunities and enhancing the farm-level economy. <p>Coarse cereals were also included in the Mission from 2014-15 under NFSM. The interventions covered under NFSM include cluster demonstrations on the improved package of practices, demonstrations on cropping system, Seed distribution of high yielding varieties, farm machinery/resources conservation machinery/tools, efficient water application tools, plant protection measures, nutrient management/soil ameliorants, cropping system-based training to the farmers etc.</p>	X	X	X	X	X
1.1.40 .2.2	DAC&FW	National Mission on Oil Seeds and Oil Palm (NMOOP);	2014-15		<p>National Mission on Oilseeds and Oil Palm (NMOOP) envisages an increase in production of vegetable oils sourced from oilseeds, oil palm and TBOs from 7.06 million tonnes (average of 2007-08 to 2011-12) to 9.51 million tonnes by the end of Twelfth Plan (2016-17). The Mission is proposed to be implemented through three Mini Missions with the specific target as detailed below</p> <ul style="list-style-type: none"> a. MM I on Oilseeds Achieve production of 35.51 million tones and productivity of 1328 kg/ha of oilseeds b. MM II on Oil Palm Bring additional 1.25 lakh hectare area under oil palm cultivation through area expansion approach in the States including utilization of wastelands with an increase in productivity of fresh fruit brunches (FFBs) from 4927 kg per ha to 15000 kg per ha. c. MM III on Tree Borne Oilseeds (TBOs) Enhance seed collection of TBOs from 9 lakh tonnes to 14 lakh tonnes and augment elite planting materials for area expansion under waste land. <p>With effect from 2018-19, NMOOP came to be merged with NFSM and was called NFSM (Oilseed & Oil Palm). In 2021-22, the scheme was again restructured as National Mission on Edible Oilseeds NMEO (Oilseeds) and NMEO (Oil Palm). The target is to increase the palm oil plantation to 10 lakh hectares by 2025-26. The targeted crude palm oil (CPO) is 11.20 lakh tonnes by 2025-26 and 28.11 lakh tonnes by 2029-30</p>	X	X		X	X
1.1.40 .2.3	DAC&FW	NFSM (Millets)	2016-17		To achieve production of 36 million tons by 2024		X		X	X
1.1.40 .2.4	DAC&FW	NFSM (Pulses)	2016-17		To achieve 26 million tons of production by 2022		X		X	X
1.1.40 .3	DAC&FW	(3) National Mission for Sustainable Agriculture (NMSA);			<ul style="list-style-type: none"> a. To make agriculture more productive, sustainable, remunerative, and climate-resilient by promoting location-specific Integrated/Composite Farming Systems. b. To conserve natural resources through appropriate soil and moisture conservation measures. c. To adopt comprehensive soil health management practices, 	X	X	X	X	X

					<p>d. To optimize utilization of water resources through efficient water management to expand coverage for achieving 'more crop per drop'.</p> <p>e. To develop the capacity of farmers & stakeholders in the domain of climate change adaptation and mitigation measures.</p> <p>f. To pilot models in select blocks for improving the productivity of rainfed farming</p> <p>g. To establish an effective, inter and intra-departmental/Ministerial co-ordination for accomplishing key deliverables of National Mission for Sustainable Agriculture under the aegis of NAPCC</p>					
1.1.4 0.3.1	DAC&FW	a. National Bamboo Mission	Revised 2019		<p>i) Enhancement of productivity in non-forest land, both Government and private.</p> <p>ii) Innovations in value addition and new product development (i) Development of market infrastructure and linkages with farmer producers such as cooperatives / FPCs / federated SHGs iii) Strengthening of existing bamboo-based industry and exploring new emerging areas to make the industry competitive iv) Extensive IEC campaigns, skill development and R&D for bamboo as an environmentally friendly, fast-growing substitute for wood</p>	X	X	X	X	X
1.1.4 0.3.2	DAC&FW	b. Rainfed Area Development (RAD) and Climate change			Sustainable Production, remunerative and climate-resilient, conserve natural resources with optimized utilization of water "Per Drop More Crop"	X	X	X	X	X
1.1.4 0.3.3	DAC&FW	c. Soil Health Management (SHM)	2014		To promote Integrated Nutrient Management (INM) through judicious use of chemical fertilisers including secondary and micro nutrients in conjunction with organic manures and bio-fertilisers for improving soil health and its productivity; strengthening of soil and fertiliser testing facilities to provide soil test based recommendations to farmers for improving soil fertility; ensuring quality control requirements of fertilisers, bio-fertilisers and organic fertilisers under Fertiliser Control Order, 1985; up-gradation of skill and knowledge of soil testing laboratory staff, extension staff and farmers through training and demonstrations; promoting organic farming practices, etc.			X		
1.1.4 0.3.4	DAC&FW	d. Soil Health Card scheme under Soil Health Management (SHM)	2015		The scheme aims at promoting soil test-based and balanced use of fertilisers to enable farmers to realise higher yields at a lower cost.[3] also, the main objective is to aware growers of the appropriate amount of nutrients for the concerned crop depending on the quality of the soil.			X		
1.1.4 0.3.5	DAC&FW	f. Establishment of Soil Testing Projects at Village Level by Local Entrepreneurs under Soil Health Management (SHM)	2015		Employment generation for rural youth. ii. To improve timeliness in an analysis of soil samples. iii. Introduction of the Single Window approach from collection to issue of SHC to minimize delays and maximize convenience to farmers iv. Online delivery of soil health cards to the farmers using Soil Health Card Portal. v. Provide soil testing facilities to farmers at their doorstep.			X		
1.1.4 0.3.6	DAC&FW	g. Sub Mission on Agro-Forestry (SMAF)	2016		a. To encourage and expand tree plantation in a complementary and integrated manner with crops and livestock to improve productivity, employment opportunities, income generation and livelihoods of rural households, especially the small farmers.	X	X	X	X	X

					<ul style="list-style-type: none"> b. To ensure availability of quality planting material like seeds, seedlings, clones, hybrids, improved varieties, etc. c. To popularise various Agroforestry practices/models suitable to different agro-ecological regions and land use conditions. d. To create a database, information and knowledge support in the area of agroforestry. e. To provide extension and capacity-building support to the agroforestry sector. 					
1.1.4 0.3.7	DAC&FW	h. Paramparagat Krishi Vikas Yojana (PKVY)	2015		Organic agriculture is the production of agricultural products free from chemicals and pesticides residues by adopting eco-friendly low-cost technologies "Paramparagat Krishi Vikas Yojana "is an elaborated component of Soil Health Management (SHM) of the National Mission of Sustainable Agriculture (NMSA). Under PKVY, Organic farming is promoted through the adoption of the organic village by cluster approach and PGS certification.	X	X	X		
1.1.4 0.3.8	DAC&FW	i. Soil and Land Use Survey of India (SLUSI)	1958		To provide a detailed scientific database on soil and land characteristics to the user departments for watershed-based soil and water conservation planning for Natural Resource Management	X	X	X		
1.1.4 0.3.9	DAC&FW	j. National Rainfed Area Authority (NRAA)	2006		to provide the much-needed knowledge inputs regarding systematic up-gradation and management of the country's dry land and rainfed agriculture	X	X	X	X	X
1.1.4 0.3.10	DAC&FW	k. Mission Organic Value Chain Development in North Eastern Region (MOVCDNER)	2015		To provide end-to-end support to the farmers from farm to fork including quality production, effective postharvest management, value addition through processing and direct market linkages to national and international markets. Transformation of farmer clusters into Farmer Producer Companies (FPCs) empowers the growers with institutional mechanisms, collective production and processing strength for quality and quantity and ensures the emergence of a new breed of organic agri-enterprises.	X	X	X		
1.1.4 0.3.11	DAC&FW	l. National Centre of Organic Farming (NCOF)	2004		<ul style="list-style-type: none"> a. Promotion of organic farming in the country through technical capacity building of all the stakeholders including human resource development, transfer of technology, promotion and production of quality organic and biological inputs. b. To act as nodal quality control laboratory for analysis of biofertilizers and organic fertilizers as per the requirement of Fertilizer Control Order (FCO, 1985). c. Revision of standards and testing protocols keeping in view the advances in research and technology and bringing remaining organic inputs under quality control regime. d. Organic input resource management, technology development through support to research and market development. e. To maintain National and Regional culture collection bank of biofertilizer for supply to production units, development & procurement and efficacy evaluation of biofertilizer strains and mother cultures. 	X	X	X	X	X

					<p>f. Promotion of Organic Farming through low-cost certification system known as "Participatory Guarantee System for India" (PGS-India).</p> <p>g. To provide financial assistance through NABARD under Capital Investment Subsidy Scheme (CISS) for agro-waste compost production units, bio-fertilizers/bio-pesticides production units.</p>					
1.1.4 0.3.12	DAC&FW	m. Central Fertilizer Quality Control and Training Institute (CFQC &TI)								
1.1.4 .4	DAC&FW	(4) Sub-Mission on Agriculture Extension (SMAE);			SMAE aims to strengthen the ongoing extension mechanism of State Governments, local bodies, etc., achieving food and nutritional security and socio-economic empowerment of farmers, to institutionalize programme planning and implementation mechanism, to forge effective linkages and synergy amongst various stakeholders, to support HRD interventions, to promote pervasive and innovative use of electronic/print media, inter-personal communication and ICT tools, etc.	X	X	X	X	X
1.1.4 0.4.1	DAC&FW	a. Support to Extension Programmes for Extension Reforms (ATMA, a Centrally Sponsored Scheme)			The scheme promotes decentralized farmer-driven and farmer-accountable extension system through an institutional arrangement for technology dissemination in the form of an Agricultural Technology Management Agency (ATMA) at the district level.			X	X	
1.1.4 0.4.2	DAC&FW	b. Mass Media Support to Agricultural Extension			Agriculture-related programmes are broadcast through 180 Narrow Casting Centres, 18 Regional Centres & 1 National Centre of Doordarshan Kendras and 96 FM Station Radio for 30 minutes, five/ six days a week.				X	
1.1.4 0.4.3	DAC&FW	c. Establishment of Agri-Clinic and Agri-Business Centres by Agriculture Graduates (ACABC)	2002		To supplement the efforts of public extension, support agricultural development and create gainful self-employment opportunities to unemployed youths with a qualification in agriculture and allied sectors.	X	X		X	
1.1.4 0.4.4	DAC&FW	d. Support to Central Institutes/DoE			Human Resources Development to MANAGE, Extension Education Institute, Model Training Courses, Exhibitions and Fairs				X	X
1.1.4 0.4.5	DAC&FW	e. Kisan Call Centres	2004		This Scheme provides agriculture-related information to the farming community through toll-free telephone lines. A countrywide common eleven-digit number 1800-180-1551 has been allotted for Kisan Call Centre.			X	X	
1.1.4 .5	DAC&FW	(5) Sub-Mission on Seeds & Planting Material (SMSP);			SMSP aims to increase production of certified / quality seed, to increase SRR, to upgrade the quality of farm-saved seeds, to strengthen the seed multiplication chain, to promote new technologies and methodologies in seed production, processing, testing, etc., to strengthen and modernizing infrastructure for seed production, storage, certification and quality, etc	X	X	X	X	X
1.1.4 .6	DAC&FW	(6) Sub-Mission on Agricultural Mechanisation (SMAM);	revised 2018-19		a. Increasing the reach of farm mechanization to small and marginal farmers and to the regions where the availability of farm power is low		X		X	X

					<ul style="list-style-type: none"> b. Promoting „Custom Hiring Centres" to offset the adverse economies of scale arising due to small landholding and high cost of individual ownership; c. Creating hubs for hi-tech & high-value farm equipment d. Creating awareness among stakeholders through demonstration and capacity building activities e. Ensuring performance testing and certification at designated testing centres located all over the country. 					
1.1.40.7	DAC&FW	(7) Sub-Mission on Plant Protection and Plant Quarantine (SMPPQ);			SMPPO aims to minimize loss to quality and yield of agricultural crops from the ravages of insect pests, diseases, weeds, nematodes, rodents, etc. and to shield our agricultural bio-security from the incursions and spread of alien species, to facilitate exports of Indian agricultural commodities to global markets, and to promote good agricultural practices, particularly concerning plant protection strategies and strategies.	X	X	X	X	X
1.1.40.7.1	DAC&FW	a. Strengthening and Modernization of Pest Management Approach in India (SMPMA)			<ul style="list-style-type: none"> a. Implementation of Insecticide Act, 1968 b. Integrated Pest Management (IPM): IPM seeks to promote cultural, mechanical, biological methods of pest control and recommends the use of chemical pesticides as a measure of last resort c. Locust Control and Research: 	X		X	X	
1.1.40.7.2	DAC&FW	b. strengthening and Modernization of Plant Quarantine Facilities in India (SMPQF)			To prevent the introduction and spread of exotic pests that are harmful to crops and bio-security of the country by regulating/restricting the import of plants/plant products and monitoring import of agriculture commodities as per the agreed conditions prescribed in the Plant Quarantine Order, 2003 notified under provisions of Destructive Insect and Pests Act, 1914	X		X	X	
1.1.40.7.3	DAC&FW	c. Monitoring of Pesticide Residue at the National Level (MPRNL)			The scheme is ongoing with the participation of 31 laboratories all over the country. The participating laboratories collect the food commodities samples from various Agriculture Produce Marketing Committee (APMC) markets and Public Distribution System (PDS)	X	X		X	
1.1.40.7.4	DAC&FW	d. National Institute of Plant Health Management (NIPHM)			<ul style="list-style-type: none"> a. The NIPHM was established in 1966 as Central Plant Protection Institute (CPPTI) at Hyderabad. b. The Institute became an autonomous body in the year 2008 with the expanded scope of promoting sustainable Plant Health Management practices in diverse agro-climatic conditions and Plant Bio-security Management and Pesticide Management through capacity-building programs. c. The NIPHM organizes capacity building programs in areas (like Plant Health Management, Bio-security & Incursion Management, Pesticide Management and Market Access) provides Consultancy Services & Policy Support and undertakes adaptive research in the plant protection domain 	X		X	X	
1.1.40.8	DAC&FW	(8) Integrated Scheme on Agricultural Census,	2014-15 in restructu red form		It aims to undertake the agriculture census, the study of the cost of cultivation of principal crops, to undertake research studies on agro-economic problems of the country, to fund conferences/workshops	X	X	X	X	X

		Economics and Statistics;			and seminars involving eminent economists, agricultural scientists, experts and to bring out papers to conduct short term studies, to improve agricultural statistics methodology and to create a hierarchical information system on crop condition and crop production from sowing to harvest.					
1.1.40.9	DAC&FW	(9) Integrated Scheme on Agricultural Cooperation;			It aims to provide financial assistance for improving the economic conditions of cooperatives, remove regional imbalances and speed up - cooperative development in agricultural marketing, processing, storage, computerization and weaker section programmes; to help cotton growers fetch a remunerative price for their produce through value addition besides ensuring the supply of quality yarn at reasonable rates to the decentralized weavers.				X	X
1.1.40.10	DAC&FW	(10) Integrated Scheme on Agricultural Marketing (ISAM);			ISAM aims to develop agricultural marketing infrastructure; to promote innovative and latest technologies and competitive alternatives in agriculture marketing infrastructure; to provide infrastructure facilities for grading, standardization and quality certification of agricultural produce; to establish a nation-wide marketing information network; to integrate markets through a common online market platform to facilitate pan-India trade in agricultural commodities, etc.	X	X		X	X
1.1.40.11	DAC&FW	(11) National e-Governance Plan in Agriculture (NeGPA-A).			To bring farmer centricity & service orientation to the programmes; to enhance reach & impact of extension services; to improve access of farmers to information & services throughout crop-cycle; to build upon, enhance & integrate the existing ICT initiatives of Centre and States; and to enhance efficiency & effectiveness of programs through making available timely and relevant information to the farmers for increasing their agriculture productivity.				X	X
1.1.41	DAC&FW	'Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds	2005-06		Ensuring production and multiplication of high-yielding certified/quality seeds of all crops and making them available to the farmers. The scheme was extended to Mission mode under Krishi Unnati Yojana				X	X
1.1.42	DAC&FW	Empowered Body on Doubling of Farmers Income	2019	2022(24)	To monitor the implementation of recommendations made by the DFI Committee and guide on related matters	X	X	X	X	X
1.1.43	DAC&FW	Integrated Cereals Development Programmes in Coarse Cereals ICDP-CC based Cropping Systems Areas under Macro Management of Agriculture - MMA.				X	X	X	X	X
1.1.44	DAC&FW	Initiative for Nutritional Security through Intensive Millet Promotion - INSIMP a part of Rashtriya Krishi Vikas Yojana" -	2011-12		To catalyse increased production of millets in the country and enhance India's nutritional security. The scheme proposed to bring 0.5million hectares (ha) under millet cultivation and has made provision to supply hybrid seeds to the farmers. It has also proposed to establish composite millet processing centres, costing Rs 4,00,000, that handle de-stoning, de-	X	X	X	X	X

		RKVY which is the only comprehensive initiative to support millet production.			hulling, flaking and rava- making, across the country. In the initial phase of implementation, the scheme has been criticized by civil society groups on the ground that it is trying to promote intensive mono-cropping of millets, which may defeat the purpose of millets farming.					
1.1.45	DAC&FW	Rainfed Area Development Programme – RADP: a component of the Rashtriya Krishi Vikas Yojana – RKVY.	2011-12		<ul style="list-style-type: none"> a. Increasing agricultural productivity of rainfed areas sustainably by adopting appropriate farming system-based approaches. b. To minimise the adverse impact of possible crop failure due to drought, flood, or un-even rainfall distribution through the diversified and composite farming system. c. Restoration of confidence in rainfed agriculture by creating sustained employment opportunities through improved on-farm technologies and cultivation practices d. Enhancement of farmer's income and livelihood support for the reduction of poverty in rainfed areas e. Convergence of relevant developmental programmes in the project area for optimal utilisation of resources by establishing an integrated and coordinated system involving different sectors and institutions. 	X	X	X	X	X
1.1.46	DAC&FW	Model Agriculture Land Leasing Act	2016		To permit and facilitate the leasing of agricultural land, to improve agricultural efficiency and equity, access to land by the landless and semi-landless poor, occupational diversity and for accelerated rural growth and transformation; provide recognition to farmers cultivating agricultural land on lease for enabling them to access loans through credit institutions, insurance, disaster relief and other support services provided by Government, while protecting fully the land rights of the owners; and matters connected therewith or incidental thereto				X	X
1.1.47	DAC&FW	Promotion of Agricultural Mechanisation for in situ Management of Crop Residues in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi	2019		<ul style="list-style-type: none"> a. Protecting the environment from air pollution and preventing loss of nutrients and soil micro-organisms caused by burning of crop residue; b. Promoting in-situ management of crop residue by retention and incorporation into the soil through the use of appropriate mechanization inputs; c. Promoting Farm Machinery Banks for custom hiring of in-situ crop residue management machinery to offset the adverse economies of scale arising due to small landholding and the high cost of individual ownership. d. Creating awareness among stakeholders through demonstration, capacity building activities and differentiated Information, Education and Communication strategies for effective utilization and management of crop residue 				X	X
1.1.48	DAC&FW	Fertilizer Control Order	1985		To ensure adequate availability of the right quality of fertilizers at right time and at the right price to farmers, the Fertilizer was declared as an Essential Commodity and Fertilizer Control Order (FCO) was promulgated under Section 3 of Essential Commodities Act,1955 to regulate, trade,			X		

					price, quality and distribution of fertilizers in the country. The FCO provides for compulsory registration of fertilizer manufacturers, importers and dealers, specification of all fertilizers manufactured/imported and sold in the country, regulation on the manufacture of fertilizer mixtures, packing and marking on the fertilizer bags, the appointment of enforcement agencies, setting up of quality control laboratories and the prohibition on manufacture/import and sale of non-standard/spurious/adulterated fertilizers. Accordingly, there are 74 Fertilizer Quality Control Laboratories in the Country					
1.1.49	DAC&FW	Model Contract Farming Act	2018		To integrate farmers with bulk purchasers including exporters, agro-industries etc. for better price realization through mitigation of market and price risks to the farmers and ensuring smooth agro raw material supply to the agro industries, a "Model Contract Farming Act" has been prepared by the Ministry of Agriculture & Farmers Welfare for circulation to the States for its adoption.			X	x	X
1.1.50	DAC&FW	Distribution of Pulses to State / Union Territories for Welfare Schemes			To dispose of the huge stock of pulses procured under Price Support Scheme (PSS) during Kharif marketing season 2017-18 and Rabi Marketing season 2018-19 by offering a subsidy of. Rs.15/- per kg over the issue price to State/UTs for utilization under various welfare schemes like Mid-Day Meal, Public Distribution System, ICDS et	X	X		X	
1.1.51	DAC&FW	The integrated scheme on Agriculture Census and Statistics	2014-15		It aims to undertake the agriculture census, a study of the cost of cultivation of principal crops, to undertake research studies on agro-economic problems of the country, to fund conferences/workshops and seminars involving eminent economists, agricultural scientists, experts and to bring out papers to conduct short term studies, to improve agricultural statistics methodology and to create a hierarchical information system on crop condition and crop production from sowing to harvest					
1.1.52	DAC&FW	Integrated Scheme on Agriculture Cooperation (NCDC)			Construction & renovation of godowns	X				X
1.1.53	DAC&FW	Rastriya Krsihi Vikas Yojana (RKVY)	2007		<ul style="list-style-type: none"> a. Risk mitigation, strengthening the efforts of the farmers along with promoting agri-business entrepreneurship through the creation of agri-infrastructure. b. Providing all the states with autonomy and flexibility in making plans as per their local needs. c. Helping farmers in increasing their income by encouraging productivity and promoting value chain addition linked production models. d. To reduce the risk of farmers by focusing on increasing income generation through mushroom cultivation, integrated farming, floriculture, etc. e. Empowering the youth through various skill development, innovation, and agri-business models. 	X	X	X	X	X
1.1.54	DAC&FW	CHAMAN (Coordinated Horticulture Assessment)	2014		<ul style="list-style-type: none"> a. Crop Inventory: 7 Major horticultural crops in selected districts of major states (185 districts in 12 states), 			X	X	X

		and Management using geo-informatics)			b. Development and Management Planning: Post-Harvest Infrastructure, Aqua-horticulture, Orchard rejuvenation, Crop Intensification, GIS Database creation, site suitability assessment and c. R&D: Crop identification, yield modeling and disease assessment, precision farming, new techniques and algorithms					
1.1.55	DAC&FW	FASAL (Forecasting Agricultural output using Space, Agrometeorological and Land-based observations)	2007-08		Crop production forecasts using remote sensing data			X	X	X
1.1.56	DAC&FW	NADAMS (National Agricultural Drought Assessment and Monitoring System)	1986		A system that helps in predicting and occurrence of droughts by providing almost perfect information on prevalence, severity level and persistence of agricultural drought right from the sub-district to the state level.			X	X	X
1.1.57	DAC&FW	Multiple Cropping Programme	1967-68		This programme envisages that more crops per year per hectare are raised.			X	X	X
1.1.58	DAC&FW	High Yielding Variety Programme	1966		It envisaged popularisation of the high yielding varieties of paddy, wheat, maize, jowar and bajra over fairly large areas.			X	X	X
1.1.59	DAC&FW	Agricultural Price Commission	1965		To recommend Minimum Support Prices (MSPs), to motivate cultivators and farmers to adopt the latest technology in order to optimise the use of resources and increase productivity. [X
1.1.60	DAC&FW	Yellow Revolution	1986-87		To increase the production of Edible oilseeds in the country to meet the domestic demand.	X	X	X	X	X
1.1.61	DAC&FW	Golden Revolution	1991-2003		Panned investment in horticulture sector to make it highly productive	X	X	X	X	X
1.1.62	DAC&FW	National Centre for Cold-chain Development	2012		Operationalised as a PPP structured body to recommend appropriate policy framework for holistic development of cold-chain, recommend standards and protocols for cold-chain infrastructure, suggest guidelines for human resource development and	X	X	X	X	X
1.1.63	DAC&FW	PMKSY (Per Drop More Crop - PDMC)	2015-17		To enhance water use efficiency in the agriculture sector by promoting appropriate technological interventions like drip & sprinkler irrigation technologies and encourage the farmers to use water saving and conservation technologies		X	X	X	
1.1.64		Kisan Credit Card	1998		To meet the comprehensive credit requirements of the agriculture sector	X	X	X	X	X
1.2	Department of Agri Research and Education									
1.2.1		Pandit Deen Dayal Upadhyay Unnat Krishi Shiksha Yojana (https://pdduuk.sy.icar.gov.in/Guidelines.aspx)	2017		a. To build skilled Human Resource at village level relevant to national needs towards organic farming and sustainable agriculture. b. Provide rural India with professional support in the field of Organic Farming/Natural Farming/Rural Economy/Sustainable Agriculture. c. To extend other activities of Pandit Deen Dayal Upadhyay Unnat Krishi Shiksha Yojana at village level through these established centres.		X	X	X	
1.2.2		Student READY (Rural Entrepreneurship Awareness	2016		To reorient graduates of Agriculture and allied subjects for ensuring and assuring employability and develop entrepreneurs for emerging knowledge-intensive agriculture. This programme includes five	X		X	X	X

		Development Yojana)			components i.e. Experiential Learning, Rural Awareness Works Experience, In-Plant Training / Industrial attachment, Hands-on training (HOT) / Skill development training and Students Projects.					
1.2.3		Mera Gaon Mera Gaurav (Lab to Land Program)	2015		<p>a. To provide farmers with required information, knowledge and advisories on regular basis by adopting villages.</p> <p>b. To promote the direct interface of scientists with the farmers to hasten the lab to land process.</p> <p>c. To ensure that farmers benefit from best farm practices by providing required information, knowledge and advisories on regular basis by adopting villages</p> <p>d. To create awareness among farmers about the organisations and their programmes and schemes as well as government policies related to the farming sector</p>	X		X	X	
1.2.4	Central sector schemes/project	Agricultural Extension				X			X	
1.2.5		Agricultural Engineering				X		X	X	
1.2.6	Management of Natural Resources	Natural Resource Management Institutes including Agro-Forestry Research				X		X	X	X
1.2.7		Climate Resilient Agriculture Initiative				X	X	X	X	X
1.2.8	Crop sciences	Crop Science				X		X		X
1.2.9		Horticultural Science				X		X		X
1.2.10		National Agricultural Science Fund				X		X	X	X
1.2.11	Animal Sciences	Animal Sciences				X			X	X
1.2.12		Fisheries Sciences				X			X	X
1.2.13	Agricultural Education	Agricultural Universities and Institutes				X	X	X	X	X
1.2.14		Economic Statistics and Management				X				
1.2.15	ICAR-World Bank	National Agricultural Higher Education Project (NAHEP)			The objective of the Project is to support Participating Agricultural Universities and ICAR in providing more relevant and higher quality education to Agricultural University students. NAHEP addresses quality by supporting interested AUs to propose and implement technically sound and verifiable investments that increase faculty performance, attract better students to these AUs, improve student learning outcomes and raise their prospects for future employability, particularly in the private sector.	X	X	X	X	X
1.2.16	Others	ICAR				X	X	X	X	X
1.2.17		Central Agricultural Universities				X	X	X	X	X
2.										
.1	Department of Dairying and Animal Husbandry									

2.1.1	DAHD	NDDB Act	1965	-	To extend the success of the Kaira Cooperative Milk Producers' Union (Amul) to other parts of India	X	X		X	X
2.1.2		Rastriya Pashudhan Vikas Yojana (4 components)				X		X	X	X
2.1.2.1	DAHD	1. Rastriya Gokul Mission	2014		To undertake a breed improvement programme for indigenous cattle breeds to improve the genetic makeup and increase the stock. To enhance milk production and productivity of indigenous bovines. To upgrade nondescript cattle using elite indigenous breeds like Gir, Sahiwal, Rathi, Deoni, Tharparkar, Red Sindhi. To distribute disease-free high genetic merit bulls of indigenous breeds for natural service. The scheme comprises two components namely National Programme for Bovine Breeding (NPBB) and National Mission on Bovine Productivity (NMBP).	X		X		X
2.1.2.2	DAHD	2. National Programme for Dairy Development	2014-15		To create and strengthen dairy infrastructure for procurement, processing and marketing of milk and milk products by the State Implementing Agencies (SIAs) i.e. State Cooperative Dairy Federations/ District Cooperative Milk Producers' Union.	X			X	X
2.1.2.3	DAHD	3. National Livestock Mission	2014-15		To enhance the level of nutrition and standard of living of livestock keepers and farmers especially smallholders through sustainable, safe and equitable livestock development.	X	X		X	X
2.1.2.4	DAHD	4. Livestock Census and Integrated Sample Survey	1919		Conducting quinquennial livestock census. Conducting annual sample survey through Integrated Sample Survey. Publishing of Annual estimates of production of milk, eggs, meat, wool and other related Animal Husbandry Statistics based on an Integrated Sample Survey conducted through States and Union Territories.	X	X			
2.1.3	DAHD	National Programme for Bovine Breeding	2014-15		To arrange quality Artificial Insemination services at farmers' doorstep To bring all breedable females under organized breeding through Artificial Insemination or natural service using germplasm of high genetic merits. To conserve, develop and proliferate selected indigenous bovine breeds of high socio-economic importance. To provide quality breeding inputs in breeding tracts of important indigenous breeds to prevent the breeds from deterioration and extinction	X			X	X
2.1.4	Animal welfare Board of India	Maintenance of sheltered animals								
2.1.5	Animal welfare Board of India	Maintenance of rescued cattle			To protect from illegal transportation					
2.1.6	Animal welfare Board of India	Construction of sheltered houses and in-house animal dispensary			To look after animals					
2.1.7	Animal welfare Board of India	Purchase of veterinary ambulance			To provide emergency service to animals in distress.					
2.1.8	Animal welfare Board of India	Natural calamities and unforeseen circumstances								
2.1.9	DAHD	Infrastructure Development Fund (The Animal Husbandry Infrastructure	2017-18		To modernize the milk processing plants and machinery and to create additional infrastructure for processing more milk.				X	X

		Development Fund (AHIDF) and The Dairy Infrastructure Development Fund (DIDF) have been merged into one single fund.								
2.1.10	NDDB	Supporting Dairy Cooperatives and FPOs	2017-18		<p>a. To assist the Cooperative Societies and farmer producer organizations engaged in dairy activities by providing soft working capital loans to tide over the crisis on account of severely adverse market conditions or natural calamities.</p> <p>b. To provide stable market access to the dairy farmers.</p> <p>c. To enable Cooperative Societies and farmer producer organizations engaged in dairy activities to continue to make timely payments of dues to the farmers.</p> <p>d. To enable the cooperatives & farmer producer organizations engaged in dairy activities to procure milk at a remunerative price from the farmers, even during the flush seasons</p>	X	X		X	X
2.1.11	DAHD	National Animal Disease Control Programme	2019		To control Foot & Mouth Disease and Brucellosis by vaccinating 100% cattle, buffalo, sheep, goat and pig population for FMD and 100% bovine female calves of 4-8 months of age for brucellosis for five years (2019-20 to 2023-24).	X		X	X	
2.1.12	DAHD	Livestock Health and Disease Control	2002		To develop animal husbandry by providing financial assistance as a Central share for control & containment of animal diseases.	X		X	X	
2.1.12.1	DAHD	Assistance to States for Control of Animal Disease (ASCAD):			To control economically important and zoonotic diseases of livestock and poultry by immunization, strengthening of the existing State Veterinary Biological Production Units and the existing Disease Diagnostic Laboratories as well as for providing in-service training to veterinarians and para-veterinarians. Funds are provided also for vaccination against canine rabies and control of endo-parasites in cattle and buffaloes.	X		X	X	
2.1.12.2	DAHD	Peste des Petits Ruminants Control Programme (PPR-CP)			Vaccinate all susceptible sheep & goats	X			X	
2.1.12.3	DAHD	Establishment and strengthening of existing Veterinary Hospitals and Dispensaries (ESVHD)			To help states establish new veterinary hospitals and dispensaries as well as strengthen/equip the existing ones including running mobile veterinary ambulances,	X				X
2.1.12.4	DAHD	Classical Swine Fever Control Programme (CSF-CP)			To control the CSF disease in pigs, central assistance is provided for vaccination against Classical Swine Fever.	X				X
2.1.12.5	DAHD	National Project on Rinderpest Surveillance and Monitoring (NPRSM)			To strengthen surveillance to maintain the country's freedom from Rinderpest & Contagious Bovine Pleuro-Pneumonia (CBPP) infections,	X				X
2.1.12.6	DAHD	Professional Efficiency Development (PED)			Assistance is given to the State Veterinary Councils and the Veterinary Council of India (VCI) to carry out their statutory functions under the Indian Veterinary Council Act					X

2.1.13	NDDB	Quality mark scheme			<ul style="list-style-type: none"> a. To impart distinct identity to the cooperative and allied dairy sector in the country develop a quality culture b. These will facilitate enhanced consumer confidence and improved brand image. c. Export worthiness of the organization. 					
2.1.14	DAHD	National Livestock Policy	2013		<ul style="list-style-type: none"> a. Improve productivity and income to improve the socio-economic status of a vast majority of our livestock producers, most of which are women and small farmers b. To support R&D on issues about the livestock sector for improving production and productivity, bio-security and profitability c. To encourage establishment and growth of self-supporting financially viable, medium and large commercial livestock production units capable of adopting the latest technology including a facility for processing and value addition d. To improve the productivity of livestock and poultry by promoting and disseminating the technologies developed by the research system e. To promote conservation of animal biodiversity; conservation and genetic improvement of important indigenous breeds of livestock and poultry in the country f. To increase the availability of feed and fodder g. To strengthen overall animal health h. To focus on the production of quality livestock products as per the international standards for food safety i. To encourage value addition of livestock products like milk and milk products, eggs, wool and meat & meat products, etc j. To expand the capacity of milk handled by organized dairy sector including cooperatives k. To ensure transmission and application of improved technology and management practices to the doorstep of the farmers and the entrepreneurs l. To create an enabling environment to attract investment for improving infrastructure support, livestock production, processing, value addition and marketing in the sector 	X	X	X	X	X
2.1.15	DAHD	The prevention and control of infectious diseases in Animals Act	2009		To provide for the prevention, control and eradication of infectious and contagious diseases affecting animals, for prevention of outbreak or spreading of such diseases from one State to another and to meet the international obligations of India for facilitating import and export of animals and animal products	X	X	X	X	X
2.1.16	NDDB	National Dairy Plan I	2012		To help increase the productivity of milch animals and thereby increase milk production to meet the rapidly growing demand for milk. To help provide rural milk producers with greater access to the organised milk-processing sector	X	X		X	X
2.1.17	DAHD	Livestock breeding policy				X			X	

2.1.18	DAHD	Venture Capital Scheme for Dairy and Poultry	2005-06		aimed at extending support for setting up small dairy farms and other components to bring structural changes in the dairy sector	X			X	X
2.1.19	DAHD	Fodder Development Scheme	2005-06		a. Establishment of Fodder Block Making Units b. Grassland Development including Grass Reserves c. Fodder Seed Production and Distribution. d. Biotechnology Research Projects	X			X	
2.1.20	DAHD	Accelerated Fodder Development Programme	2011		The programme envisages accelerating the production of fodder through the promotion of integrated technologies and processes for enhancing the availability of fodder throughout the year	X			X	
2.1.21	DAHD	Kisan Credit Cards to Livestock Farmers	2019		To ensure the provision of easy and concessional credit and to bring all farmers under KCC fold,				X	X
2.1.22	DAHD	Dairy Entrepreneurship Development Scheme	2010 (revised venture capital scheme)		a. To promote setting up of new/modern dairy farms for clean milk production b. To encourage rearing of heifer calf c. To improve the quality & traditional technology to handle milk on a commercial scale d. To bring structural changes in the unorganized sector so that initial milk processing can be taken up at the village level itself e. To generate self-employment & provide infrastructure mainly for unorganized sector	X	X	X	X	
2.1.23	DAHD	Operation Flood I	1970-80		a. Creating a flood of Milk by Increase production b. Increase the incomes of the rural population c. Provide milk to consumers at fair prices	X	X	X	X	X
2.1.24	DAHD	Operation Flood II	1981-85		a. Creating a flood of Milk by Increase production b. Increase the incomes of the rural population c. Provide milk to consumers at fair prices	X	X	X	X	X
2.1.25	DAHD	Operation Flood III	1985-96		a. Creating a flood of Milk by Increase production b. Increase the incomes of the rural population c. Provide milk to consumers at fair prices	X	X	X	X	X
2.1.26	DAHD	Pink Revolution			The modernization of the meat and poultry processing sector in India	X	X	X	X	X
2.2	Department of Fisheries									
2.2.1	Department of Fisheries (Blue Revolution)	Pradhan Mantri Matsya Sampada Yojana	2020-21	2024-25	a. Harnessing of fisheries potential in a sustainable, responsible, inclusive and equitable manner b. Enhancing of fish production and productivity through expansion, intensification, diversification and productive utilization of land and water c. Modernizing and strengthening of the value chain - post-harvest management and quality improvement d. Doubling fishers and fish farmers' incomes and generation of employment e. Enhancing contribution to Agriculture GVA and exports f. Social, physical and economic security for fishers and fish farmers g. Robust fisheries management and regulatory framework	X	X	X	X	X

2.2.2	Department of Fisheries (Blue Revolution)	Fisheries and Aquaculture Infrastructure Development Fund			<ul style="list-style-type: none"> a. Creation and modernization of capture & culture fisheries infrastructure b. Creation of Marine Aquaculture Infrastructure c. Creation and modernization of Inland Fisheries Infrastructure d. Reduce post-harvest losses and improve domestic marketing facilities through infrastructure support. e. To bridge the resource gap and facilitate the completion of ongoing infrastructure projects. 	X	X	X	X	X
2.2.3	Department of Fisheries (Blue Revolution)	Integrated Development and management of Fisheries				X	X	X	X	X
2.2.4	Department of Fisheries	National Fisheries Development Board				X	X	X	X	X
2.2.5	Department of Fisheries	FISH COPFED (FFPO vision)			For setting up of 500 Fisheries FPOs (FFPOs) under PM Matsya Sampada Yojana	X	X	X	X	X
2.2.6	Coastal Aquaculture Authority	The Coastal Aquaculture Authority Act	2005		<ul style="list-style-type: none"> a. To regulate the aquaculture activities in the country b. To control the coastal environment destruction. c. To produce more protein-rich food for the consumption of the increasing population d. To provide a livelihood to humans in commercial aquaculture activities e. To increase the existing species of aquatic animals and protect the coastal environment f. To utilize the aquatic and coastal land in a sustainable way of ensuring enough resources for our future generation 	X	X	X	X	X
2.2.6.1	Coastal Aquaculture Authority	Guidelines for regulating coastal aquaculture	2005		To ensure orderly and sustainable development of shrimp aquaculture in the country. The guidelines are intended to lead to environmentally responsible and socially acceptable coastal aquaculture and also enhance the positive contributions that shrimp farming and other forms of aquaculture can make to socio-economic benefits, livelihood security and poverty alleviation in the coastal areas	X	X	X	X	X
2.2.6.2	Coastal Aquaculture Authority	Guidelines for regulating hatcheries and farms for introduction of <i>Litopenaeus Vannamei</i>	2009		To set biosecurity norms, sanitary requirement etc	X		X		
2.2.6.3	Department of Fisheries	Guidelines for seed production and culture of specific pathogen free (SPF) <i>Penaeus Monodon</i>	2012		Regarding sanitary import permit, biosecurity norms, water treatment, disinfection of instruments, seed production, sale, disease reporting, inspection etc.	X	X	X		
2.2.7	Department of Fisheries	National Policy on Marine Fisheries	2017		To ensure the health and ecological integrity of the marine living resources of India's Exclusive Economic Zone (EEZ) through sustainable harvests for the benefit of present and future generations of the nation. The overall strategy of the NPMF, 2017 is based on seven pillars, namely sustainable development, socio-economic upliftment of fishers, principle of subsidiarity, partnership, inter-	X		X	X	X

					generational equity, gender justice and precautionary approach					
2.2.8	Department of Fisheries	Integrated Development and Management of Fisheries (structured plan scheme of blue revolution)	2015-16	2019-20	<p>a. To fully tap the total fish potential of the country both in the inland and the marine sector and triple the production by 2020.</p> <p>b. To transform the fisheries sector as a modern industry with special focus on new technologies and processes</p> <p>c. To double the income of the fishers and fish farmers with special focus on increasing productivity and better marketing postharvest infrastructure including e-commerce and other technologies and global best innovations</p> <p>d. To ensure inclusive participation of the fishers and fish farmers in the income enhancement</p> <p>e. To triple the export earnings by 2020 with focus on benefits flow to the fishers and fish farmers including through institutional mechanisms in the cooperative, producer companies and other structures</p> <p>f. To enhance the food and nutritional security of the country</p>	X	X	X	X	X
2.2.9	Department of Fisheries	National Scheme for Welfare of Fishermen			To provide financial assistance to fishers for construction of house among other things. For housing, the State Governments may ensure equitable distribution of houses among all villages in proportion to the number of eligible fishermen, as far as possible.				X	
3	Ministry of Rural Development									
3.1	Department of Rural Development									
3.1.1	National Rural Infrastructure Development agency	Pradhan Mantri Gram Sadak Yojana I	2015	-	All-weather roads to provide connectivity to the unconnected habitations in the rural areas	X	X			X
3.1.2	National Rural Infrastructure Development agency	Pradhan Mantri Gram Sadak Yojana II	2013		To cover up-gradation of existing selected rural roads based on their economic potential and their role in facilitating the growth of rural market centres and rural hubs	X	X			X
3.1.3	National Rural Infrastructure Development agency	Pradhan Mantri Gram Sadak Yojana III	2019		Consolidation of the rural road network by upgradation and connecting inhabitants to GrAMs, Higher secondary schools, hospitals b) easy and faster movements to and for food processing units, markets and other related enterprise,	X	X			X
3.1.4	National Rural Infrastructure Development agency	National Rural Livelihood Mission	2011	2015	"To reduce poverty by enabling the poor households to access gainful self-employment and skilled wage employment opportunities, resulting in appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots institutions of the poor."	X	X		X	X
3.1.5	Department of Rural Development	Swarna Jayanti Gram Swarozgar Yojana	1999	merged with NRLM in 2011	To provide self-employment to millions of villagers. The programme aims at bringing the assisted poor families above the poverty line by organising them into self-help groups (SHGs) through a mix of bank credit and government subsid	X	X		X	X
3.1.6	Department of Rural Development	Deendayal Upadhyay Antyodaya Yojana- DAY NRLM (it	2015		Skill development of both rural and urban India as per requisite international standards, work on poverty alleviation, develop livelihood-based poverty action plans	X	X		X	X

		replaces Ajeevika or NRLM. In other words, NRLM was renamed as DAY-NRLM)								
3.1.7	Department of Rural Development	Start-up village entrepreneurship programme (sub scheme to DAY-NRLM)	2016		To support the rural poor come out of poverty, supporting them set up enterprises and provide support till the enterprises stabilize. SVEP focuses on providing self-employment opportunities with financial assistance and training in business management and soft skills while creating local community cadres for promotion of enterprises. It addresses three major pillars of rural start-ups namely – finances, incubation and skill ecosystems.	X	X		X	X
3.1.8	Department of Rural Development	MNREGA	2005		Providing not less than one hundred days of unskilled manual work as a guaranteed employment in a financial year to every household in rural areas as per demand, resulting in creation of productive assets of prescribed quality and durability; (b) Strengthening the livelihood resource base of the poor; (c) Proactively ensuring social inclusion and (d) Strengthening Panchayati Raj Institutions.	X	X		X	X
3.1.9	Department of Rural Development	Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)	2014		Part of NRLM with dual objectives of adding diversity to the income of rural poor and cater to the career aspirations of rural youth. The scheme is uniquely focussed on rural poor between 15-35 yrs. Supports other programs like Make in India, Digital India, Smart cities and Start up India	X			X	
3.1.10	Department of Rural Development	Annapurna Yojana	2000-21		The Annapurna Yojana is a senior citizen scheme aimed at people over 35 years of age. It is meant for people who are not getting pension and are given 10 kilograms of food grains per person per month which is supplied to them free of cost\	X			X	
3.1.11	Department of Rural Development	DBT to PMJDY Women Account Holders	April 2020		Rs 500 transferred to all women account holders under PMJDY	X			X	
3.1.12	Department of Rural Development	Indira Gandhi National Old Age Pension Scheme (IGNOAPS)	2007		Non-contributory old age pension scheme that covers Indians who are 60 years and above and live below the poverty line	X			X	
3.1.13	Department of Rural Development	National Family Benefit Scheme	1995		The scheme aims to provide a lump sum family benefit of Rs 10,000/- to the bereaved households in case of the death of the primary breadwinner irrespective of the cause of death. The scheme is applicable to people in the age bracket of 18-64 years. There are other schemes for "Ease of Living" of citizens:	X			X	
3.1.14	Department of Rural Development	Indira Gandhi National Widow Pension Scheme (IGNWPS)			The pension is given to widows aged between 45 and 64 years of age. The applicant should be a household below the Poverty Line as per the criteria prescribed by the Government of India. The pension amount is Rs. 200 per month per beneficiary and the concerned state government is also urged to provide an equal amount to the person. The pension is to be credited into a post office or public sector bank account of the beneficiary	X			X	
3.1.15	Department of Rural Development	Indira Gandhi National Disability Pension Scheme (IGNDPS)	2000		This is a Govt. of India funded Scheme where the beneficiaries receive Rs.300/- per month under this scheme	X			X	

3.1.16	Department of Rural Development	NABARD-housing							X	
3.1.17	Department of Rural Development	Shyama Prasad Mukherjee Rurban Mission	2016		The objective of the National Rurban Mission (NRuM) is to stimulate local economic development, enhance basic services, and create well planned Rurban clusters.				X	
3.1.18	Department of Rural Development	Pradhan Mantri Awaas Yojana-Gramin	2016		Awaas Yojana has been re-structured into Pradhan Mantri Awaas Yojana.aims at providing a pucca house, with basic amenities, to all houseless householder and those households living in kutcha and dilapidated house, by 2022. The beneficiary is entitled to 90.95-person day of unskilled labour from MGNREGS. The assistance for construction of toilet shall be leveraged through convergence with SBM-G, MGNREGS or any other dedicated the source of funding. Convergence for piped drinking water, electricity connection, LPG gas connection etc. different Government programmers are also to be attempted.	X			X	
3.2	Department of Land Resources									
3.2.1	Department of Land resources	Zamindari Abolition Act	1950	-	To abolish the intermediaries between the farmers and the state. Title of rights to the cultivator				X	
3.2.2	Department of Land resources	Digital India Land Record Modernization Programme	2008	extended up to 2020-21	To develop an appropriate Integrated Land Information Management System (ILIMS) across the country,				X	X
3.2.3	Department of Land resources	The National Rehabilitation and Settlement Policy	2007		To minimise displacement and to promote, 'as far as possible, non-displacing or least-displacing alternatives; (b) to ensure adequate rehabilitation package and (c) to ensure that special care is. taken for protecting the rights of the weaker sections of society, especially members of the Scheduled Castes and Scheduled Tribes, (d) to provide a better standard of living, making concerted efforts for providing sustainable income to the affected families				X	
3.2.4	Department of Land resources	Neeranchal National Watershed Project	2016	2022	The Project Development Objective (PDO) of Neeranchal is to support WDC-PMKSY through technical assistance to improve incremental conservation outcomes and agricultural yields for communities in selected sites, and adoption of more effective processes and technologies into the broader PMKSY in participating states.	X			X	
3.2.5	Department of Land resources	Watershed Guidelines	2012					X	X	X
3.2.6	Department of Land resources/ Ministry of Jal Shakti	Pradhan Mantri Krishi Sinchai Yojana (PMKSY)	2015-16		a. Convergence of investment in irrigation at the field level b. Expand cultivable area under irrigation (हर खेत को पानी) c. Improve On-farm water use efficiency to reduce wastage of water Enhance the adoption of being precise in irrigation and other water saving technologies (more crop per drop). The Integrated Watershed Management programme was subsumed into the current PMKSY on 26 October 2015			X	X	X
3.2.6.1	Department of Land resources	PMKSY (Watershed) - implemented by Department of Land Resources.	2015-16		a. Water harvesting structures such as check dams, nala bund, farm ponds, tanks etc. b. Capacity building, entry point activities, ridge area treatment, drainage line treatment, soil and moisture conservation, nursery raising, afforestation, horticulture, pasture development, livelihood			X	X	

					activities for the asset-less persons and production system & micro enterprises for small and marginal farmers etc. c. Effective rainfall management like field bunding, contour bunding/trenching, staggered trenching, land levelling, mulching etc.					
3.2.7	Department of Land Resources	Drought Prone Area Programme	1973-74		To minimise the adverse effects of drought on production of crops and livestock and productivity of land, water and human resources ultimately leading to drought proofing of the affected areas. The programme also aims to promote overall economic development and improving the socio-economic conditions of the resource poor and disadvantaged sections inhabiting the programme areas.			X	X	
3.2.8	Department of Land Resources	Desert Area Development Programme	1977-78		To minimise the adverse effect of drought and control desertification through rejuvenation of natural resource base of the identified desert areas			X	X	
3.2.9	Department of Land Resources	Integrated Wasteland Development Programme	1985-86		It is precisely to restore the ecological imbalance by developing the degraded non-forest wastelands			X	X	
3.2.10	Department of Land Resources	National Watershed Development Programme in Rainfed Areas	1990-91		a. conservation, development and sustainable management of natural resources. b. enhancement of agricultural production and productivity in a sustainable manner. c. restoration of ecological balance in the degraded and fragile rainfed ecosystems by greening these areas through appropriate mix of trees, shrubs and grasses. d. reduction in regional disparity between irrigated and rainfed areas and; e. creation of sustained employment opportunities for the rural community including the landless.	X		X	X	
4	Ministry of Food Processing Industries (MoFPI)									
4.1	MoFPI	Pradhan Mantri kisan SAMPADA (Scheme for Agro-Marine Processing and Development of Agro Processing Clusters)	2016-20		Creation of modern infrastructure for food processing mega food parks/ clusters and individual units. To create effective backward and forward linkages - linking farmers, processors and markets. To create robust supply chain infrastructure for processed foods industry	X			X	X
4.1.1	MoFPI	Mega Food Parks	2016-20		To provide modern infrastructure for food processing units in the country. To ensure value addition of agricultural produce including dairy, fisheries etc. To establish a sustainable raw material supply chain for each cluster. To facilitate induction of the latest technology. To address the need of small and micro food processing enterprises. To provide an institutional mechanism for producers, processors, and retailers to work together to build the supply chain.				X	X
4.1.2	MoFPI	Integrated Cold-chain and Value Addition Infrastructure	2016-20		To arrest post-harvest losses of horticulture & non-horticulture produce by providing financial assistance in setting up integrated cold-chain, preservation and value addition infrastructure facilities without any break from the farm gate to the consumer	X			X	X
4.1.3	MoFPI	Creation/Expansion of Food Processing	2016-20		Creation/ expansion and / or modernization of processing/preservation capacities will help in increasing the level	X			X	X

		/Preservation capacities			of processing, value addition and thereby reduction of wastage. The setting up of new units and modernization/ expansion of existing unit will be covered under the scheme. The processing units undertake a wide range of processing activities depending on the processing sectors which results in value addition and/or enhancing shelf life of the processed products.					
4.1.4	MoFPI	Infrastructure for Agro-processing clusters	2016-20		To create modern infrastructure for food processing closer to production areas. To provide integrated and complete preservation infrastructure facilities from the farm gate to the consumer. To create effective backward and forward linkages by linking groups of producers / farmers to the processors and markets through well-equipped supply chain.	X			X	X
4.1.5	MoFPI	Creation of Backward Forward Linkages	2016-20		To create effective backward & forward linkages for perishable agri-horti produce through setting up of primary processing centres / collection centres at farm gate, distribution hub and retail outlets at the front end. To provide preservation facilities for enhancing shelf life of perishable agricultural produce resulting in better remunerative prices to farmers.	X			X	X
4.1.6	MoFPI	Food Safety Quality Assurance Infrastructure	2016-20		To establish a surveillance system for monitoring the quality and composition of food. To analyse the samples received from processing industry and other stakeholders. To reduce the time for analysis of samples by reducing transportation time of samples. To ensure compliance of international and domestic standards on food in case of exports as well as imports.	X	X		X	X
4.1.7	MoFPI	Human Resources and Institutions	2016-20		The objective of the scheme is that end product/outcome/findings of R&D work should benefit food processing industry in terms of product and process development, efficient technologies, improved packaging, value addition etc. with commercial value along with standardization of various factors viz., additives, colouring agents, preservatives, pesticide residues, chemical contaminants, microbiological contaminants and naturally occurring toxic substances within permissible limits.	X	X	X	X	X
4.1.8	MoFPI	Operation Greens	2016-20		To address farm-to-fork connectivity of horticultural produce in line with the interventions taken under Operation Flood for milk.	X	X		X	X
4.2	MoFPI	Production Linked Incentive Scheme for Food Processing Industry (PLISFPI)	2021-22 to 2026-27		Support Food manufacturing entities with stipulated minimum Sales and willing to make minimum stipulated investment for expansion of processing capacity and Branding abroad to incentivise emergence of strong Indian brands.: Support creation of global food manufacturing champions; Strengthen select Indian brand of food products for global visibility and wider acceptance in the international markets Increase employment opportunities of off-farm jobs, Ensuring remunerative prices of farm produce and higher income to farmers.	X	X	X	X	X
4.3	MoFPI	Aatmanirbhar Bharat- PMFME (PM Formalisation of Micro Food Processing Enterprises Scheme	2020-21 to 2024-25		The objectives of scheme are to build capability of microenterprises to enable: <ul style="list-style-type: none"> a. Increased access to credit by existing micro food processing entrepreneurs, FPOs, Self Help Groups and Co-operatives; b. Integration with organized supply chain by strengthening branding & marketing; 				X	X

					<ul style="list-style-type: none"> c. Support for transition of existing 2,00,000 enterprises into formal framework; d. Increased access to common services like common processing facility, laboratories, storage, packaging, marketing and incubation services; e. Strengthening of institutions, research and training in the food processing sector; and f. Increased access for the enterprises, to professional and technical support 					
4.3.1	MoFPI	Aatmanirbhar Bharat-Operation Greens (Top to Total)	2020-21 to 2024-25		The objective of intervention is to protect the growers of fruits and vegetables from making distress sale due to lockdown and reduce the post-harvest losses	X	X		X	X
4.4	MoFPI	Indian Institute of Food processing Technology			The Institute offers academic and research programmes in the field of food processing technology.					
4.5	MoFPI	National Institute of Food Technology Entrepreneurship and management (NIFTEM)			To work actively for assisting in setting up food standards, businesses incubation and can also include knowledge sharing. It would also be an apex institution in the field of food technology and management, networking and co-ordinating with other institutions in the same field in India and Abroad					
5 Ministry of Consumer Affairs, Food and Public Distribution										
5.1 Department of Food and Public Distribution										
5.1.1	Department of Food and Public Distribution	The Food Corporations Act	1964	-	To provide for the establishment of Food Corporations for the purpose of purchase, storage, movement, transport, distribution and sale of foodgrains and other foodstuffs, setting up or assist in setting up of rice mills, flour mills and other undertakings for the processing of foodgrains and other foodstuffs, and discharge other functions as in the Act	X				X
5.1.2	Department of Food and Public Distribution	The Warehousing Development and Regulation Act	2007	-	To make provisions for the development and regulation of warehouses, negotiability of warehouse receipts, establishment of a Warehousing Development and Regulatory Authority and for matters connected therewith or incidental thereto.	X	X		X	X
5.1.3	Department of Food and Public Distribution	The Warehousing Corporations Act	1962		To provide for the incorporation and regulation of corporations for the purpose of warehousing of agricultural produce and certain other commodities and for matters connected therewith.	X				X
5.1.4	Department of Food and Public Distribution	WDRA			is to regulate and ensure implementation of the provisions of the Warehousing (Development and Regulation) Act, 2007 for the development and regulation of warehouses, Regulations of Negotiability of Warehouse Receipts and promote orderly growth of the warehousing business.					
5.1.5	Department of Food and Public Distribution	Strengthening of PDS			PDS - Training, Evaluation, Monitoring and Research					
5.1.6	Department of Food and Public Distribution	Village grain bank scheme	2004	2014	To provide a safeguard against starvation during the period of natural calamity or during lean season when the marginalized food insecure households did not have sufficient resources to purchase rations. (earlier implemented by Ministry of Tribal Affairs)					
5.1.7	Department of Food and Public Distribution	Fortification of Rice and Distribution under PDS	2019-20		The key objectives of the scheme are: Distribution of fortified rice through Public Distribution System, to cater to 15 Districts in the country – preferably one					

					District per State in the initial phase of implementation (To begin with, the States/UTs will have the option to implement the Pilot Scheme in a part of the selected District too).					
5.1.8	Department of Food and Public Distribution	National Food Security Act	2013	-	Right to Food, with a coverage of up to 75% of the rural population and up to 50% of urban population for receiving highly subsidized foodgrains under Targeted Public Distribution System, besides other public distribution (Mid-day meal, ICDS, etc)	X			X	X
5.1.9	Department of Food and Public Distribution	Food Corporation of India	1965		To implement the following objectives of the National Food Policy: a. Effective price support operations for safeguarding the interests of the poor farmers b. Distribution of foodgrains throughout the country for Public Distribution System (PDS) c. Maintaining a satisfactory level of operational and buffer stocks of foodgrains to ensure National Food Security	X			X	X
5.1.10	Department of Food and Public Distribution	Central Warehousing Corporation	1962		It aims to provide reliable, cost-effective, value-added, integrated warehousing and logistics solutions in a socially responsible and environmentally friendly manner.	X			X	X
5.1.11	Department of Food and Public Distribution	Cash Transfer of Food Subsidy Rule	2015		The DBT aims to a. reduce the need for huge physical movement of foodgrains b. provide greater autonomy to beneficiaries to choose their consumption basket c. enhance dietary diversity d. reduce leakages e. facilitate better targeting f. promote financial inclusion	X	X	X	X	X
5.1.12	Department of Food and Public Distribution	One Nation One Ration Card Scheme	2019		a. Reforms in the public distribution system. b. Access of food grains to each beneficiary. c. Integrating all the Indian states and UTs in the scheme by March 2021	X	X	X	X	
5.1.13	Department of Food and Public Distribution	Targeted Public Distribution System	1997		Emphasizes the implementation and identification of the poor for proper arrangement and delivery of food grains	X	X		X	X
5.1.14	Department of Food and Public Distribution	Antyodaya Anna Yojana	2000		To provide highly subsidised food to millions of the poorest families (poorest of the poor)	X	X		X	X
5.2	Department of Consumer Affairs									
5.2.1	Department of consumer affairs	Essential Commodities Act	1955		To maintain an interrupted production, supply and distribution of essential commodities in the country, prevent hoarding – amended in 2020.	X	X			
5.2.2	Department of consumer affairs	The Essential Commodities (Amendment) Act, 2020	2020		It aims to remove the "...stringent restrictions on stock, movement and price control of agricultural foodstuffs for attracting private investments in agricultural marketing and infrastructure."	X			X	X
5.2.3	Department of consumer affairs	Prevention of Black Marketing and Maintenance of Supply of essential commodities Act, 1980	1980		To provide for detention in certain cases for prevention of Black-marketing and maintenance of supplies of commodities essential to the community and for matters connected therewith.				X	X
5.2.4	Department of consumer affairs	Bureau of Indian Standards	2016		Harmonious development of the activities of standardization, marking and quality certification of goods and for matters connected therewith or incidental thereto	X	X		X	
5.2.5	Department of consumer affairs	Legal Metrology Act	2009		To establish and enforce standards of weights and measures, regulate trade and commerce in weights, measures and	X	X			X

					other goods which are sold or distributed by weight, measure, or number and for matters connected therewith or incidental thereto.					
5.2.6	Department of consumer affairs	Standards of weights and measures Act	1939	2009		X				
5.2.7	Department of consumer affairs	Standards of weights and measures (enforcement) Act	1985	2009	To ensure countrywide uniformity in the enforcement procedures of the modern system of weights and measures and also in the scope and coverage of legal control on weights and measures and weighing and measuring instruments	X	X			
5.2.8	Department of consumer affairs	Food Safety and Standard Act	2006		To consolidate the laws relating to food and to establish the Food Safety and Standards Authority of India for laying down science-based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import, to ensure availability of safe and wholesome food for human consumption and matters connected therewith or incidental thereto.	X	X			X
5.2.9	Department of consumer affairs	The levy sugar price equalisation fund act	1976		To provide for the establishment, in the interest of the general public, of a fund to ensure that the price of levy sugar may be uniform throughout India and for matters connected therewith or incidental thereto	X				X
5.2.10	Department of consumer affairs	Sugarcane Pricing policy			Fair and remunerative price for sugarcane	X			X	
5.2.11	Department of consumer affairs	Sugar Pricing policy (Sugar Price Control Order 2018)			Under the provisions of said order, the Government has fixed the Minimum Selling Price (MSP) of white/refined sugar at Rs. 29/kg w.e.f. 07.06.2018 for sale by sugar mills at the factory gate for domestic consumption. MSP of sugar has been fixed taking into account the components of Fair & Remunerative Price (FRP) of sugarcane and minimum conversion cost of the most efficient mills. The government has revised the MSP of white/refined sugar from Rs.29/kg to Rs.31/kg w.e.f. 14.02.2018	X			X	
5.2.12	Department of consumer affairs	Cold Storage Order	1980			X	X			X
5.2.13	Department of consumer affairs	Consumer Protection act	2019		To provide for the protection of the interests of consumers and the said purpose, to establish authorities for timely and effective administration and settlement of consumers' disputes and matters connected therewith or incidental thereto	X	X			
5.2.14	Department of consumer affairs	Price Stabilisation Fund	2015		To help regulate the price volatility of important agri-horticultural commodities like onion, potatoes and pulses were also added subsequently. The scheme provides for maintaining a strategic buffer of aforementioned commodities for subsequent calibrated release to moderate price volatility and discourage hoarding and unscrupulous speculation. For building such stock, the scheme promotes direct purchase from farmers/farmers' associations at farm gate/Mandi. Initiated with DAC&FW in 2015, later transferred to DCA in 2016	X	X			
5.2.15	Department of consumer affairs	Legal Metrology and Quality Assurance				X	X			
5.2.16	Department of consumer affairs	Ethanol blended petrol programme	2003		The Ethanol Blended Petrol Programme was launched in 2003 to promote the use of renewable and environmentally friendly fuels and reduce India's import dependence for energy security. Starting with 5% blending, the government has set a target of 10% ethanol blending by 2022 and 20% blending (E20) by 2030. The		X	X	X	X

					programme is implemented following the National Policy on Biofuels. Under this programme, oil marketing companies (OMCs) will procure ethanol from domestic sources at prices fixed by the government. Till 2018, only sugarcane was used to derive ethanol. Now, the government has extended the ambit of the scheme to include foodgrains like maize, bajra, fruit and vegetable waste, etc. to produce ethanol. This move helps farmers gain additional income by selling the extra produce and also broadens the base for ethanol production in the country					
6 Ministry of Corporate Affairs										
6.1	Ministry of Corporate Affairs	Companies Act (Amendment), Producer Company Act 2013	2013	-	To improve the standard of living of smallholders and ensure a good status of their available support, incomes and profitability	X	X		X	X
7 Ministry of Statistics and programme Implementation										
7.1	Ministry of Statistics and programme Implementation	Collection of Statistics Act (CSO and NSSO)	2008		To facilitate the collection on economic, social, scientific and environmental aspects, and for matters connected therewith or incidents there to	X	X		X	
8 Ministry of Skill Development and Entrepreneurship										
8.1	Ministry of Skill Development and Entrepreneurship	National Policy on Skill Development and Entrepreneurship 2015 (PM Kaushal Vikas Yojana)	2015		to meet the challenge of skilling at scale with speed and standard (quality). It will aim to provide an umbrella framework to all skilling activities being carried out within the country, to align them to common standards and link the skilling with demand centres				X	
9 Ministry of New and Renewable Energy										
9.1	Ministry of New and Renewable Energy	Remote Village Electrification Programme			To provide for financial support for electrification of those remote unelectrified census villages and unelectrified hamlets of electrified census villages where grid extension is either not feasible or not cost-effective and is not covered under DDUGJY. Such villages are provided basic facilities for electricity/lighting through various renewable energy sources. Small Hydro Power Generation systems, biomass gasification-based electricity generation systems, solar photovoltaic power plants, etc., in distributed power generation mode, may be used depending upon the availability of resources for generation of the required electricity				X	X
9.2	Ministry of New and Renewable Energy	Village Energy Security programme			The objective of the project is to go beyond electrification by addressing the total energy requirements for cooking, electricity, and motive provide access to electricity through renewables to households in remote villages and hamlets, which are not likely to get covered through grid extension. The projects on village energy security are taken up to demonstrate the techno-economic parameters of the village energy security plan, provide operational experience, mobilize local communities and firm up the institutional arrangements.				X	X
9.3	Ministry of New and Renewable Energy	PM-Kisan Energy Security and Upliftment Campaign (KUSUM) Scheme or Pradhan Mantri Kisan Energy Suraksha and	2019		PM-KUSUM is aimed at ensuring energy security for farmers in India, along with honoring India's commitment to increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030 as part of Intended Nationally Determined Contributions (INDCs).	X	X	X	X	X

		Utthan Maha Abhiyan (Kusum) Yojana								
10	Ministry of Petroleum and Natural Gas									
10.1	Ministry of Petroleum and Natural Gas	National Policy on Biofuels	2018		<p>a. The policy is aimed at taking forward the indicative target of achieving a 20% blending of biofuels with fossil-based fuels by 2030.</p> <p>b. The policy intends to ensure the adequate and sustained availability of domestic feedstock for biofuel production, increasing farmers' income, import reduction, employment generation, and waste to wealth creation.</p> <p>c. This policy exhibits the Centre's push towards strengthening the energy infrastructure of the country while promoting the agenda of sustainability</p>			X	X	X
10.2	Ministry of Petroleum and Natural Gas	Pradhan Mantri Ujjwala Yojana	2016		<p>a. To empower women and protect their health.</p> <p>b. To minimize health issues arising from the use of unclean fossil fuel and other fuel while cooking.</p> <p>c. To control indoor pollution from the use of fossil fuel which causes respiratory issues.</p> <p>d. To prevent degradation of the purity of the environment that is compromised by widespread usage of unclean cooking fuel.</p>			X	X	X
11	Ministry of Power									
11.1	Ministry of Power	Electricity Act	2003		To consolidate the laws relating to the generation, transmission, distribution, trading and use of electricity and generally for taking measures conducive to the development of electricity industry, promoting competition therein, protecting the interest of consumers and supply of electricity to all areas, rationalisation of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal and for matters connected therewith or incidental thereto.				X	X
11.2	Ministry of Power	National Electricity Policy	2005		The National Electricity Policy aims at laying guidelines for accelerated development of the power sector, providing a supply of electricity to all areas and protecting the interests of consumers and other stakeholders keeping in view availability of energy resources, the technology available to exploit these resources, economics of generation using different resources, and energy security issues.				X	X
11.3	Ministry of Power	National Rural Electrification Policy	2006		Goals include the provision of access to electricity to all households by the year 2009, quality and reliable power supply at reasonable rates and minimum lifeline consumption of 1 unit/household/day as a merit good by the year 2012				X	X
11.4	Ministry of Power	Rajiv Gandhi Grameen Vidyutikaran Yojana	2005	2014	Electrifying all villages and habitations as per new definition providing access to electricity to all rural households Providing electricity Connection to Below Poverty Line (BPL) families free of charge				X	X
11.5	Ministry of Power	Deen Dayal Upadhayay Gram Jyoti Yojana	2014		<p>a. To provide electricity to all villages.</p> <p>b. Feeder separation to ensure sufficient power to farmers and regular supply to other consumers.</p> <p>c. Improvement of sub-transmission and distribution networks to</p>			X	X	X

					improve the quality and reliability of the supply. d. Metering to reduce the losses.					
12 Ministry of Ayush										
12.1	Ministry of Ayush	Scheme for Conservation, Development and Sustainable Management of Medicinal Plants			<p>a. Support cultivation of medicinal plants which is the key to integrity, quality, efficacy and safety of the AYUSH systems of medicines by integrating medicinal plants in the farming systems, offer an option of crop diversification on and enhance incomes of farmers.</p> <p>b. Cultivation following the Good Agricultural and Collection Practices (GACPs) to promote standardization and quality assurance and thereby enhance the acceptability of the AYUSH systems globally and increase exports of value-added items like herbal extracts, Phyto-chemicals, dietary supplements, cosmeceuticals and AYUSH products.</p> <p>c. Support setting up processing clusters through the convergence of cultivation, warehousing, value addition and marketing and development of infrastructure for entrepreneurs to set up units in such clusters.</p> <p>d. Implement and support certification mechanisms for quality standards, Good Agriculture Practices (GAP), Good Collection Practices (GCP), and Good Storage Practices (GSP).</p> <p>e. Promote partnership, convergence and synergy among stakeholders involved in R&D, processing and marketing in the public as well as private sector at national, regional, state and sub-state levels.</p>				X	X
12.2	Ministry of Ayush	National Medicinal Plants Board			Marketing and Promotion of Medicinal plants				X	X
12.3	Ministry of Ayush	National Ayush Mission			<p>a. To provide cost-effective AYUSH Services with universal access through up-gradation of AYUSH Hospitals and Dispensaries</p> <p>b. To provide comprehensive Primary Health Care through upgrading health care facilities as Health & Wellness Centres, Co-location of AYUSH facilities at PHCs, CHCs & DHs</p> <p>c. To strengthen institutional capacity at State level up-gradation of AYUSH educational institutions, pharmacies, Drug Testing.</p> <p>d. Support cultivation of Medical Plants</p> <p>e. Production of quality and standardized ingredients for the supply of AYUSH</p> <p>f. Support herbal industry and export market-driven cultivation of medicinal plants with backward & forward linkages of marketing, post-harvest management and certification</p> <p>g. Integration of Medicinal plants in farming systems and</p> <p>h. Increase export of value-added items of medicinal plants</p>				X	X
13 Ministry of Science and Technology										
13.1	DBT	Biotech-Kisan Scheme (Krishi Innovation			a. Linking available science and technology to the farm by first understanding the problem of the	X			X	

		Science Application Network			local farmer and providing solutions to those problems. b. Working together, in close conjunction, of scientists and farmers is the only way to improve the working conditions of small and marginal farmers. c. This programme aims to work with small and marginal farmers especially the woman farmer for better agriculture productivity through scientific intervention and evolving best farming practices in the Indian context					
14	Ministry of Tribal Affairs									
14.1	Ministry of tribal affairs	The mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) and development of Value Chain of MFP			As a social safety net for the improvement of livelihood of MFP gatherers by providing them a fair price for the MFPs they collect.	X				
14.2	Ministry of tribal affairs	Institutional Support for Development and Marketing of Tribal Products (TRIFED etc.)			Connecting tribal products to markets, providing market platform	X	X		X	X
15	Ministry of Railways									
15.1	Ministry of Railways	Kisaan Rail Service	2020		The primary objective of running Kisan Rail trains is to increase the income in the farm sector by connecting production centers to markets and consumption centers, at a lower cost	X				X
16	Ministry of Panchayati Raj									
16.1	Ministry of Panchayat Raj	Rural Technology Action Group			To identify the technology needs for rural areas, available technology solutions and problems encountered in adopting the existing technology at grass root level; find technology solutions through government agencies, S&T institutions, S&T NGOs, academic institutes, corporate sectors and other voluntary agencies; and disseminate refined technology to rural areas.					
16.2	Ministry of Panchayat Raj	Solar Technology For Rural Area								
16.3	Ministry of Panchayat Raj	Vegetable vending cart			To reduce the spoilage of vegetables and fresh fruits during the retail marketing by street vendors thereby offsetting a fraction of post-harvest losses in the supply chain To increase the shelf life of fresh fruits and vegetables during the retailing/street vending so that consumers can get more utility for their spending	X			X	X
16.4	Ministry of Panchayat Raj	Rastriya Gram Swaraj Abhiyan								
16.5		Community Development Blocks	1952		To provide for a substantial increase in the country's agricultural programme, and for improvements in systems of communication, in rural health and hygiene, and in rural education and also to initiate and direct a process of integrated culture change aimed at transforming the social and economic life of villagers				X	
16.6		National Extension Service	1953		The National Extension Service (NES) programme was launched with the idea of having wider coverage at less cost and more people's participation.				X	

16.7		Intensive Agricultural District Programme	1961		The major objectives of the programme were to demonstrate the most effective ways of achieving rapid and significant increase in agriculture production through adoption of a package of improved practices and to suggest successful and adoptable innovations, approaches and procedures which could be adopted in similar areas of the country.			X	X	X
16.8		Intensive Agriculture Area Programme	1964-65		Greater emphasis given to the development of scientific and progressive agriculture intensively in the areas which have High production potentials". The idea was to cover at least 20% of the cultivated area of the country. The emphasis was on import crops such as Wheat, Rice, Millets, Cotton, Sugarcane, Potato, Pulses, etc. The Intensive Agriculture Area programme (IAAP) paved the way for Green Revolution in the country.			X	X	X
16.9		Regional Rural Bank Act	1976		An Act to provide for the incorporation, regulation and winding up of Regional Rural Banks to develop the rural economy by providing, for development of agriculture, trade, commerce, industry and other productive activities in the rural areas, credit and other facilities, particularly to the small and marginal farmers, agricultural laborers, artisans and small entrepreneurs, and for matters connected therewith and incidental thereto	X		X	X	X
16.10		National Bank for Agricultural and Rural Development	1982		NABARD came into existence on 12 July 1982 by transferring the agricultural credit functions of RBI and refinance functions of the then Agricultural Refinance and Development Corporation (ARDC).	X		X	X	X
16.11		Small Farmers Development Agency	1971-72							
17	Ministry of Jal Shakti									
17.1	Jal Shakti	Pradhan Mantri Krishi Sinchai Yojna-Per Drop More Crop	2015		To provide end to end solutions in the irrigation supply chain to increase agricultural production and productivity by increasing availability and efficient use of water		X	X	X	
17.1.1	Jal Shakti	Har Khet Ko Pani	2015		To Repair, Renovation and Restoration of Water Bodies; Surface Minor Irrigation Schemes; Ground Water Irrigation		X	X	X	
17.2	Jal Shakti	Accelerated Irrigation Benefit Programme - implemented by Ministry of Water Resources, RD & GR.	2015-16		To provide financial assistance to State Governments to speed up the implementation of on-going irrigation projects.			X	X	
17.3	Jal Shakti	Dam Rehabilitation and Improvement Programme	2012		This programme is for strengthening of dam safety, its rehabilitations and improvement.			X		
17.4	Jal Shakti	Ground Water Management and Regulation	1997		To execute project relating to Ground Water Management and Regulation for better ground water governance.			X		
17.5	Jal Shakti	Central Groundwater Board	1970		Sustainable Development and Management of Ground Water Resources of the Country			X		
17.6	Jal Shakti	Atal Bhujal Yojana	2019		Sustainable management of groundwater with community participation. The identified over-exploited and water-stressed areas for the implementation of the scheme are Gujarat, Haryana, Karnataka, Madhya Pradesh,			X		

					Maharashtra, Rajasthan, and Uttar Pradesh.					
17.7	Jal Shakti	National water policy (Integrated Water Resources Management (IWRM))	2012		To promote, develop and manage water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.			X		
17.8	Jal Shakti	National water policy (Minimum Water Flow)	2018		To maintain minimum water levels in the Ganga throughout the year by refraining from hoarding water beyond a point and to make a minimum quantity of potable water available to citizens for maintaining essential health and hygiene.			X		
17.9	Jal Shakti	Swajal	2018		To provide de-centralised, preferably solar energy-based piped water supply in 117 aspirational districts through community-designed, implemented, maintained and safely managed single village water supply scheme.			X		
17.10	Jal Shakti	National Water Mission	2011		Comprehensive water database in public domain and assessment of the impact of climate change on a water resource; (b) Promotion of citizen and state actions for water conservation, augmentation and preservation; (c) Focused attention to vulnerable areas including over-exploited areas; (d) Increasing water use efficiency by 20%; and (e) Promotion of basin level integrated water resources management.			X		
17.11	Jal Shakti	National River Conservation Plan -Other Basins			To improve the water quality of polluted stretches of rivers by a reduction in pollution load reaching the rivers by undertaking various pollution abatement works.			X		
17.12	Jal Shakti	Jal Shakti Abhiyan	2019		campaign for water conservation and water security in the country			X		
17.13	Jal Shakti	Flood Management and Border Areas Programme (FMBAP)	2017		To control and mitigation of floods, hydrological observations and investigations of water resource projects with neighbouring countries, river management works on common/border rivers, flood control and anti-erosion works, anti-sea erosion works, and maintenance of flood protection works of Kosi and Gandak Projects (in Nepal), etc.			X		
17.14	Jal Shakti	Swachh Bharat Mission (Gramin)	2014		To provide sanitation facilities to the rural masses		X			
17.15	Jal Shakti	Jal Jeevan Mission (JJM)/National Rural Drinking Water Mission	2019		To provide functional household tap connection to every rural household by 2024. The programme focuses on water supply on regular basis in adequate quantity and of prescribed quality.			X		
17.16	Jal Shakti	National Centre for Drinking Water, Sanitation and Quality			To provide technical and financial assistance to the States to provide safe and adequate drinking water to rural India with a focus on service delivery.			X		
17.17	Jal Shakti	National River Conservation Plan	1995		National River Conservation Programme relating to River Ganga and its tributaries.			X		
17.18	Jal Shakti	Farakka Barrage Project	1961		Its main functions are operation and maintenance of Farakka Barrage, Jangipur Barrage, Feedar Canal, Navigation Locks, Facilitation and implementation of the agreement on sharing of Ganga Water between India and Bangladesh, etc.			X		
17.19	Jal Shakti	Water Resources Management			To standardized national information system with a network of data banks and databases, integrating and strengthening the existing Central and State Level agencies and improving the quality of data and the processing capabilities.			X		
17.20	Jal Shakti	National Hydrology Project	2016		Revisiting of the methodology and model, training of the state engineers on the methodology for assessment,			X		

					development of water assessment model at sub-basin level by state engineers (micro-models) in line with the macro-model of the basin, River Basin Planning, Extended Hydrological Prediction (EHP), Flood forecasting, Sediment Modelling study, National Water Informatics Centre (NWIC), etc.					
17.21	Jal Shakti	Namami Gange	2014		To implement schemes/projects for the river Ganga and its tributaries for rehabilitation and up-gradation of existing Sewerage Treatment Plants (STPs) besides commissioning of New STPs.			X		
17.22	Jal Shakti	River Basin Management	2014		To carry out regular activities like survey, investigation & preparation/ updating of Master Plans of NE States, Drainage Development Schemes, Anti-erosion & Flood Management Works, etc.; preparation of Feasibility Reports (FRs) and DPRs for Interlinking of Rivers, and establishment expenditure of River Basin Authorities			X		
18	Ministry of Environment, Forest and Climate Change (MoEFCC)									
18.1	MoEFCC	Environment Protection, Management and Sustainable Development			To Support programmes/projects on Pollution Abatement, Hazardous Substances Management, Climate Change Action Plan, National Adaptation Fund for Climate Change and National Mission of Himalayan Studies.					X
18.2	MoEFCC	National Mission for a Green India			To increase the forest cover and to protect the existing forest land.			X		
18.3	MoEFCC	Conservation of Natural Resources and Ecosystems			To conserve the natural resources and eco-system in areas like Bio-spheres, wetland and lakes of the country		X	X		
18.4	MoEFCC	Climate Change Performance Index	2005		To enhance transparency in international climate politics and enables comparison of climate protection efforts and progress made by individual countries.			X		
18.5	MoEFCC	India State of Forest Report	2019		To create a national forest inventory for the first time on produce from forests.		X	X		
18.6	MoEFCC	Climate Resilient Agriculture Initiative	2011		To enhance resilience of Indian agriculture to climate change and climate vulnerability.		X			X
18.7	MoEFCC	Control of Pollution and National Clean Air Programme	2019		To frame a national framework for air quality management by reducing the concentration of coarse (particulate matter of diameter 10 micrometre or less, or PM10) and fine particles (particulate matter of diameter 2.5 micrometre or less, or PM2.5) by at least 20% in the next five years, with 2017 as the base year for comparison.		X	X		X
18.8	MoEFCC	Integrated Development of Wildlife Habitats			To protect Tigers, Elephants and wildlife habitats.		X	X		
18.9	MoEFCC	India Cooling Action Plan	2019		To assess cooling requirements across sectors in the next 20 years and the associated refrigerant demand and energy use with protecting the ozone layer.		X			X
18.10	MoEFCC	National Coastal Mission (NCM)	2017		To conserve, protect and promote sustainable development in coastal States and Union Territories of India that ensures livelihood security of coastal communities including fisher folks.		X	X	X	
19	Ministry of Health and Family Welfare (MoHFW)									
19.1	MoHFW	Prevention of Food Adulteration Act	1954	2006		X				
19.2	MoHFW	Food Safety & Standards Act	2006	-		X	X			
19.3	MoHFW	National Health Mission	2005		It envisages universal access to equitable, affordable & quality health care services to public.	X				

19.4	MoHFW	National Rural Health Mission	2005		To provide accessible, affordable and quality health care to the rural population, especially the vulnerable groups.	X				
19.5	MoHFW	National Urban Health Mission (NUHM)	2013		To meet health care needs of the urban population with the focus on urban poor, by making available to them essential primary health care services and reducing their out-of-pocket expenses for treatment.	X				
19.6	MoHFW	Reproductive and Child Health (RCH)	1997		Overall umbrella of reducing infant, child and maternal mortality.			X	X	
19.7	MoHFW	RCH - II	2005		To bring about a change in reducing total fertility rate, infant mortality rate and maternal mortality rate with a view to realizing the outcomes envisioned in the Millennium Development Goals.				X	
19.8	MoHFW	Reproductive, Maternal, New-born, Child and Adolescent Health (RMNCH+A) /RCH/RCH II	2013		To address the major causes of mortality among women and children.				X	
19.9	MoHFW	Rastriya Bal Swasthya Karyakram (RBSK)	2013		This program involves screening of children from birth to 18 years of age for 4 Ds- Defects at birth, Diseases, Deficiencies and Development delays, spanning 32 common health conditions for early detection and free treatment and management, including surgeries at tertiary level				X	
19.8	MoHFW	The Rastriya Kishor Swasthya Karyakram	2014		Health programme for adolescents, in the age group of 10-19 years.	X			X	
19.9	MoHFW	Janani Shishu Suraksha Karyakram (JSSK)	2011		JSSK entitles all pregnant women delivering in public health institutions to absolutely free and no expense delivery, including caesarean section. Includes free drugs and consumables, free diagnostics, free diet during stay in the health institutions, free provision of blood, free transport from home to health institution, between health institutions in case of referrals and drop back home and exemption from all kinds of user charges. Similar entitlements are available for all sick infants (up to 1 year of age) accessing public health institutions				X	
19.10	MoHFW	Mission Indradhanush	2017		aim of improving coverage of immunization in the country.				X	
19.11	MoHFW	Pulse Polio Immunisation programme	1995		immunization campaign established by the government of India to eliminate polio in India by vaccinating all children under the age of five years against the poliovirus.				X	
19.12	MoHFW	Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)	2003		objectives of correcting regional imbalances in the availability of affordable/ reliable tertiary healthcare services and also to augment facilities for quality medical education in the country by setting up various institutions like AIIMS and upgrading government medical college institutions.				X	
19.13	MoHFW	Rashtriya Arogya Nidhi	1997		provides financial assistance to the patients that are below the poverty line and are suffering from life-threatening diseases, to receive medical treatment at any government-run super specialty hospital/ institution.				X	
19.14	MoHFW	National Tobacco Control Programme	2007		Greater awareness about the harmful effects of tobacco use and about the Tobacco Control Laws and to facilitate the effective implementation of the Tobacco Control Laws.				X	

19.15	MoHFW	Integrated Child Development Service	1975		To improve the nutrition and health status of children in the age group of 0-6 years, and to enhance the capability of the mother to look after the normal health and nutrition needs through proper nutrition and health education.	X			X	
19.16	MoHFW	Rastriya Swasthya Bima Yojana	2008		To provide health insurance coverage to the unrecognized sector workers belonging to the below poverty line and their family members				X	
19.17	MoHFW	India Newborn Action Plan	2014		INAP is India's committed response to the Global Every Newborn Action Plan, launched in June 2014 at the 67th World Health Assembly.				X	
19.18	MoHFW	Ayushman Bharat-PM Jan Arogya Yojana (PM-JAY)	2018		To move towards a provision of universal healthcare in the country by creation of health and wellness centres to bring health care closer to homes and formulation of a Pradhan Mantri Jan Arogya Yojana (PMJAY) to protect poor and vulnerable families against financial risk arising out of catastrophic health episodes.				X	
19.19	MoHFW	Affordable Medicines and Reliable Implants for Treatment (AMRIT)	2015		to reduce the expenditure incurred by patients on treatment of cancer and heart diseases				X	
19.20	MoHFW	National AIDS & STD Control Organisation	1992		Provide access to quality care and treatment with dignity by fostering close collaboration with NGOs, women's self-help groups, faith-based organizations, positive people's networks, and communities. NACP-III aimed at halting and reversing the HIV epidemic in India over its five-year period by scaling up prevention efforts among High-Risk Groups (HRG) and General Population and integrating them with Care, Support & Treatment services.				X	
19.21	MoHFW	Revised National TB Control Programme	1993		The initiative of the Government of India with a vision of achieving a TB-free India. The program provides, various free of cost, quality tuberculosis diagnosis and treatment services across the country through the government health system.				X	
19.22	MoHFW	National Leprosy Eradication Programme	1955		initiated by the government for Early detection through active surveillance by the trained health workers and to provide Appropriate medical rehabilitation and leprosy ulcer care services.				X	
19.23	MoHFW	PM Aatma Nirbhar Swasth Bharat Yojana	2021-22		Four-Pronged Strategy for a Healthy India: (i)Prevention of illness and promotion of wellness including measures such as Swachh Bharat Abhiyan, yoga and timely care and treatment of pregnant women and children, (ii)Providing cheap and effective treatment to the poorest of the poor, (iii)Increasing the quality of health infrastructure and healthcare professionals and (iv)Working on a mission mode to overcome obstacles like Mission Indradhanush has been extended to the tribal and far-flung areas of the country.				X	
20	NITI AYOJ									
20.1	NITI	Transforming Nutrition in India (Poshan Abhiyaan)	2018		To formulate overall policies and guidelines, and monitor all nutrition based schemes, highlighting a life-cycle approach.	X				X
20.2	NITI	Women Entrepreneurship Platform (WEP)	2018		To help women realize their entrepreneurial aspirations, scale-up innovative initiatives and chalk-out sustainable, long-term strategies for their businesses.	X			X	X

20.3	NITI	Atal Innovation Mission	2016		To promote innovation and entrepreneurship in the country.				X	
20.4	NITI	Samavesh	2017		To catalyze development processes, enhance institutional capacity development and enable a field level interface with the community for mutual enrichment through networking and partnerships with reputed knowledge & research institutions to create an ecosystem of evidence-based policy research.			X		
20.5	NITI	Project SATH-E, 'Sustainable Action for Transforming Human Capital-Education	2017		To identify and build three 'role model' States for the school education sector.				X	
20.6	NITI	Atal Incubation Centres (AIC)	2019		To set up incubators around the country, in a mix of tier 1, 2 and 3 cities.					
21	Ministry of Commerce and Industry (MoCI)									
21.1	MoCI	National Export Insurance Account	2006		The objective of NEIA is to provide credit insurance support to those projects sectors exports which are beyond the underwriting capacity of ECGC. The NEIA is maintained and operated by NEIA Trust a Public Trust set up jointly by the Department of Commerce and ECGC.					
21.2	MoCI	Market Access Initiative	2015-2020		Market Access Initiative Scheme is formulated to act as a catalyst to promote India exports on a sustained basis. There are provisions for supporting individual exporters for product registration and testing charges for engineering pharmaceutical products abroad. Under the scheme, assistance is provided to the organizations of Central State Governments Export Promotion Councils, Registered Trade Promotion organizations, Commodity Boards, recognized Apex Trade Bodies and Recognized Industrial Clusters. The activities eligible for financial assistance under the Scheme are Marketing Projects Abroad Capacity Building Support for Statutory Compliances Studies Project Development etc.					
21.3	MoCI	National Export Insurance Account	2006		The objective of NEIA is to provide credit insurance support to those projects sectors exports which are beyond the underwriting capacity of ECGC. The NEIA is maintained and operated by NEIA Trust a Public Trust set up jointly by the Department of Commerce and ECGC.					
21.4	MoCI	Agricultural Product Export Development Authority (APEDA)	1985		Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Agricultural and Processed Food Products Export Development Authority Act passed by the Parliament in December 1985 (2 of 1986) to promote and develop agriculture exports of its scheduled products.	X			X	X
21.5	MoCI	Marine Product Export Development Authority (MPEDA)	1972		The Marine Products Export Development Authority is responsible for the development of the marine industry with specialisation in marine export.	X			X	X
21.6	MoCI	Investment in ECGC (Export Credit Guarantee Corporation)	1957		The primary objective of ECGC is to support the Country's exports by providing a range of insurance covers to Indian Exporters against the risk of non-realization of export proceeds due to commercial or political causes and different types of guarantees to Banks and other financial institutions to enable them to extend credit facilities to exporters.					

21.7	MoCI	Stimulus Package for Export Credit - NIRVIK Yojana	2021		Stimulus Package for Export Credit-NIRVIK Yojana scheme will enhance the export credit.					
21.8	MoCI	Interest Equalisation Scheme	2015		To give subsidies to certain labour intensive and other export-oriented sectors to boost the export					
21.9	MoCI	Transport and Marketing Assistance (TMA) Scheme for specified agriculture products	2019		The proposed scheme is for assisting with the international component of freight to mitigate the freight disadvantage for the export of agriculture products and assistance for the marketing of agricultural produces which is likely to result in higher exports of branded agriculture products in overseas markets					
21.10	MoCI	Implementation of Agriculture Export Policy	2019-20		Provision for assistance to State Agencies, Institutional mechanism, Clusters, Product Development, Marketing and Research and Development					
21.11	MoCI	Market Access Initiative	2015-2020		Market Access Initiative Scheme is formulated to act as a catalyst to promote India exports on a sustained basis. There are provisions for supporting individual exporters for product registration and testing charges for engineering pharmaceutical products abroad. Under the scheme, assistance is provided to the organizations of Central State Governments Export Promotion Councils, Registered Trade Promotion organizations, Commodity Boards, recognized Apex Trade Bodies and Recognized Industrial Clusters. The activities eligible for financial assistance under the Scheme are Marketing Products Abroad, Capacity Building Support for Statutory Compliances Studies Project Development, etc.					
21.12	MoCI	Investment in ECGC (Export Credit Guarantee Corporation)	1957		The primary objective of ECGC is to support the Country's exports by providing a range of insurance covers to Indian Exporters against the risk of non-realization of export proceeds due to commercial or political causes and different types of guarantees to Banks and other financial institutions to enable them to extend credit facilities to exporters.					
21.13	MoCI	Duty Drawback Scheme	1962		Refund of Customs Duties/ Excise Duties paid on inputs, raw material used in deemed export products/ Refund of Terminal Excise Duty (TED).					
21.14	MoCI	Trade Infrastructure for Export Schemes (TIES)	2017 -18		This scheme provides funds for projects having an overwhelming export linkage like Border HAAT, land customs station, testing facility, test and certification lab, trade promotion centre, dry ports, export warehousing, etc.					
21.15	MoCI	Stimulus Package for Export Credit - NIRVIK Yojana	2021		Stimulus Package for Export Credit-NIRVIK Yojana scheme will enhance the export credit.					
21.16	MoCI	Interest Equalisation Scheme	2015		To give subsidy to certain labour intensive and other export-oriented sectors to boost the export					
21.17	MoCI	Spices Board Act	1986		To provide for the constitution of a Board for the development of export of spices and for the control of cardamom industry including the control of cultivation of cardamom and matters connected therewith	X	X	X	X	X
22	Ministry of Micro, Small and Medium Enterprises (MSME)									
22.1	MSME	Development of Khadi, Village and Coir Industries			To promote and develop markets for traditional industries like Khadi Grant (KG); Coir Vikas Yojana; Coir Udyami Yojana; Solar Charkha Mission; Khadi Vikas Yojana; Gramodyog Vikas Yojana		X			X

22.2	MSME	Credit Guarantee Trust Fund for Micro & Small Enterprises (CGTMSE)	2000		To provide collateral-free credit facilities to the new as well as existing Micro and Small enterprises. The maximum loans limit has been enhanced from Rs. 100 lakhs to. Rs. 200 lakhs. The government of India provides funds for Micro Finance Programme to SIDBI which is used for the security deposit requirement of the loan amount from the MFIs/NGOs					X
22.3	MSME	Credit Linked Capital Subsidy and Technology Upgradation Scheme	2013		The programme covers Credit Linked Capital Subsidy and Technology and Quality Upgradation Support to MSMEs (TEQUP); schemes of National Manufacturing Competitiveness Programme (six Schemes) viz. Lean Manufacturing Competitiveness Scheme, Design expenses for Manufacturing MSME Sector, Digital MSME, Support for Entrepreneurial & Managerial Development of MSMEs through Incubators, Building Awareness on Intellectual Property Rights for MSME.					X
22.4	MSME	Guarantee Emergency Credit Line (GECL) facility to eligible MSME borrowers	2020		Assistance to National Credit Guarantee Trustee Company Limited (NCGTC) for the Guarantee Emergency Credit Line (GECL) facility to eligible MSME borrowers.					X
22.5	MSME	National Schedule Caste/Schedule Tribe Hub Centre	2016		To supports existing SC/ST entrepreneurs and enterprises in technological up-gradation and capacity building					
22.6	MSME	Market Promotion Scheme			To provide financial assistance on International Cooperation		X			X
22.7	MSME	Prime Minister Employment Generation Programme (PMEGP)	2008		To generate employment opportunities through setting up of new self-employment ventures/projects/micro enterprises; bring together widely dispersed traditional artisans/ rural and urban unemployed youth, increase wage earning capacity of artisans					
22.8	MSME	Revamped Scheme Of Fund for Regeneration Of Traditional Industries (SFURTI)	2005-06		To make Traditional Industries more productive and competitive by organizing the Traditional Industries and artisans into clusters to provide support for their long-term sustainability and economy of scale		X			X
22.9	MSME	A Scheme for Promoting Innovation, Rural Industry & Entrepreneurship (ASPIRE)	2015		The scheme focus on setting up of: (a) Livelihood Business Incubation Centre (LBI), (b) Technology Business Incubation Centre (TBI) and (c) Fund of Funds (FoF) under SIDBI					X
22.10	MSME	Micro and Small Enterprises - Cluster Development Programme (MSE-CDP)	2007		To provide Infrastructure support to micro, village based enterprises, women owned enterprises and SC,ST units in the form of higher assistance.					X
22.11	MSME	Prime Minister's Rojgar Yojana (PMRY)	1993		To provide self-employment opportunities to educated youths who are unemployed.					
22.12	MSME	Rural Employment Generation Programme (REGP)	1995		To generate rural employment with targets of generation of two million jobs under the KVI sector in the rural areas of the country.		X			X
23	Ministry of Textiles									
23.1	Textiles	Amended Technology Upgradation Fund Scheme (ATUFS)	2016		To provide Amended Technology Upgradation of the Textiles Industry with one-time capital subsidy for eligible machinery.				X	X
23.2	Textiles	Procurement of Cotton-by-			Whenever the market price of Kappas falls below/touches the minimum support				X	X

		Cotton Corporation under Price Support Scheme			price (MSP), the CCI is to undertake Support Price Operation and purchase Kappas at MSP.					
23.3	Textiles	Yarn Supply Scheme	1992		To provide all types of yarn to handloom weavers through NHDC.				X	X
23.4	Textiles	Trade Facilitation Centre and Crafts Museum	2014		To develop and promote the rich tradition of handlooms of Varanasi.				X	X
23.5	Textiles	Comprehensive Handloom Cluster Development Scheme (CHCDS) – MEGA HANDLOOM CLUSTER or Handloom Cluster Development Program - Handloom Mega Cluster	2008-09		To assist the entrepreneur/weavers to set up facilities with modern infrastructure, enhance the competitiveness of the clusters in terms of increased market share and ensure increased productivity by higher unit value realization of the products.				X	X
23.6	Textiles	Weavers Service Centre	1956		To provide skill, upgradation, design and technical support to handloom weavers and liaison with State Governments.				X	X
23.7	Textiles	Ambedkar Hastshilp Vikas Yojana	2001-02		To promote Indian handicrafts by developing artisans' clusters into professionally managed and self-reliant community enterprises on the principles of effective member participation and mutual cooperation				X	X
23.8	Textiles	Marketing Support and Services			To develop, expand and sustain Marketing of Handicrafts					X
23.9	Textiles	Handicrafts Artisans comprehensive welfare scheme			To provide life insurance protection to the Handicraft Artisans between the age group of 18-60 years					X
23.10	Textiles	Infrastructure and Technology Development Scheme			To promote Infrastructure and Technology Development				X	X
23.11	Textiles	Handicraft Cluster Development Program - Handicraft Mega Cluster			To promote the overall development of handicrafts including basic infrastructural necessities, training, technologies, transportation, an exhibition to marketing				X	X
23.12	Textiles	Integrated Wool Development Programme	2017-18		To provide support to Wool Industry and Wool Growers to qualitatively upgrade product and technology, processing, increase the production and remunerative returns to its wool growers		X			X
23.13	Textiles	Development of Jute Industries			To provide training/development, market promotion and development activities of the National Jute Board.			X	X	X
23.14	Textiles	Power Tex India	2014		To provide better technical service support to Power loom industry/weavers, facilitation of marketing their products through buyer-seller meets, promoting awareness among the consumers about the latest designs, products and product diversification, etc., establish Common Facility Centre, Yarn Bank and Tex Venture Capital Fund in clusters, and empower Power loom industry.		X			X
23.15	Textiles	Modified Comprehensive Power loom Cluster Development Program - Power loom Mega Cluster	12th plan		To set up Handicrafts Mega Clusters.		X	X		X

23.16	Textiles	Integrated Processing Development Scheme	12th plan		To facilitate the textile industry to become globally competitive using environmentally friendly processing standards and technology.		X	X		
23.17	Textiles	Scheme for Integrated Textile Parks (SITP)	2005		To facilitate the development of world-class infrastructure for setting up textile units.				X	X
23.18	Textiles	NER Textiles Promotion Scheme	2016		To develop and modernize the textile sector in the North East Region by providing the required Government support in terms of raw material seed banks, machinery, common facility centres, skill development, design and marketing support etc.					
23.19	Textiles	National Handloom Development Programme	2017		To develop, protect and promote the Handloom industry of the country				X	X
23.20	Textiles	Handloom Weaver Comprehensive Welfare Scheme (HWCWS)	12th plan;		To provide health and life insurance to handloom weavers. Added PMJJBY and PMSBY schemes in 2015				X	X
24	Ministry of Women and Child Development									
24.1	Women and Child	Saksham Anganwadi and POSHAN 2.0 (Umbrella ICDS - Anganwadi Services, Poshan Abhiyan, Scheme for Adolescent Girls, National Creche Scheme)	2021		Umbrella ICDS - Anganwadi Services, Poshan Abhiyan, Scheme for Adolescent Girls, National Creche Scheme)	X				
24.2	Women and Child	Mission VATSALYA (Child Protection Services and Child Welfare Services)	2009		To ensure the safety and well-being of children through Child Protection Services and Child Welfare Services.			X	X	
24.3	Women and Child	Mission Shakti (Mission for Protection and Empowerment for Women)	2019		SAMBAL (One Stop Centre, Mahila Police Volunteer, Women's Helpline/Swadhar/Ujjawala/ Widow Homes, etc. SAMARTHYA (Beti Bachao Beti Padhao, Creche, Pradhan Mantri Matru Vandana Yojana/ Gender Budgeting/Research/Skilling/ Training, etc.)				X	
24.5	Women and Child	Beti Bachao Beti Padhao Scheme	2015		To celebrate the girl child and enable her education.				X	
24.6	Women and Child	Women Helpline Scheme	2015		It envisages 24-hour emergency and non-emergency response to women affected by violence, including sexual offenses both in the public and private sphere				X	
24.7	Women and Child	One-Stop Centre Scheme	2015		To facilitate access to an integrated range of services including medical aid, police assistance, legal aid/case management, psychosocial counselling and temporary support services to women affected by violence.				X	
24.8	Women and Child	UJJAWALA	2016		A Comprehensive Scheme for Prevention of trafficking and Rescue, Rehabilitation and Re-integration of Victims of Trafficking and Commercial Sexual Exploitation				X	
24.9	Women and Child	SWADHAR Greh (A Scheme for Women in Difficult Circumstances)	2001-02		The scheme envisages a supportive institutional framework for women victims of difficult circumstances so that they could lead their life with dignity and conviction.				X	
24.10	Women and Child	NIRBHAYA	2013		To improve the safety and security of women				X	

24.11	Women and Child	Mahila police Volunteers	2016		The Ministry of Women and Child Development in collaboration with the Ministry of Home Affairs have started the engagement of Mahila Police Volunteers in States/UTs who will act as a link between police and community and facilitate women in distress.				X	
24.12	Women and Child	Mahila Shakti Kendras (MSK)	2017		To empower rural women through community participation.				X	
24.13	Women and Child	Home for Widows	2016		To provide the widows a safe and secure place of stay, nutritious food, health services, legal and counselling services. It has facilities to make it old age-friendly like ramp, lifts and provision for physiotherapy.				X	
25	Ministry of Finance									
25.1	Ministry of Finance	The Central Goods and Services Tax Rules	2017		It is collected from point of consumption and not point of origin like previous taxes					X
25.2	Ministry of Finance	Atal Pension Yojana	2010-11, relaunch 2015		A pension scheme for citizens of India is focused on the unorganized sector workers. Under the APY, guaranteed minimum pension of Rs. 1,000/- or 2,000/- or 3,000/- or 4,000 or 5,000/- per month are given at the age of 60 years depending on the contributions by the subscribers	X		X	X	
25.3	Ministry of Finance	Jan Dhan Yojana	2014		To expand affordable access to financial services such as bank accounts, remittances, credit, insurance and pensions.	X	X	X	X	X
26	Ministry of Education									
26.1	Ministry of Education	Mid-Day Meal Scheme	1995		<ul style="list-style-type: none"> a. To increase the enrolment of the children belonging to disadvantaged sections in the schools. b. Leading enrolment to increased attendance in the schools. c. To retain children studying in classes 1-8. To provide nutritional support to the children of the elementary stage in drought-affected areas	X			X	

Annexure-III

Theme-wise 'Game Changer' Policies/Actions/Initiatives by Government of India Impacting the Food System

A		B	C	D		E	F					
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'					
				D1	D2		G1	G2	G3	G4	G5	
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5	
1											PRE- PRODUCTION	
1.1	Pre-Production	DAC&FW	The protection of Plant Varieties and Farmer's Rights Act (PPVFRA)	2001		<ul style="list-style-type: none"> a. Facilitate an effective system for the protection of plant varieties & the rights of farmers b. Encourage the development of new varieties of plants c. Protect the rights of the farmers in respect of their contribution in conserving plant genetic resources d. Facilitate the growth of the seed industry which will ensure the availability of high-quality seeds 				X		
1.2	Pre-Production	DAC&FW	Fertilizer Control Order	1985		To ensure adequate availability of the right quality of fertilizers at the right time and right price to farmers, the Fertilizer was declared as an Essential Commodity and Fertilizer Control Order (FCO) was promulgated under Section (3) of Essential Commodities Act, 1955 to regulate, trade, price, quality and distribution of fertilizers in the country. the FCO provides for compulsory registration of fertilizer manufacturers, importers and dealers, specification of all fertilizers manufactured/imported and sold in the country, regulation on the manufacture of fertilizer mixtures, packing and marking on the fertilizer bags, the appointment of enforcement agencies, setting up of quality control laboratories and the prohibition on manufacture/import and sale of non-standard/spurious/adulterated fertilizers. Accordingly, there are 74 Fertilizer Quality Control Laboratories in the Country			X			
1.3	Pre-Production	DAC&FW	Model Agriculture	2016		To permit and facilitate the leasing of agricultural land, to				X	X	

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
			Land Leasing Act			improve agricultural efficiency and equity, access to land by the landless and semi-landless poor, occupational diversity and for accelerated rural growth and transformation; provide recognition to farmers cultivating agricultural land on lease for enabling them to access loans through credit institutions, insurance, disaster relief and other support services provided by Government, while protecting fully the land rights of the owners; and matters connected therewith or incidental thereto					
1.4	Pre-production	DAC&FW	'Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds	2005-06		Ensuring production and multiplication of high yielding certified/quality seeds of all crops and making them available to the farmers. The scheme was extended to Mission mode under Krishi Unnat Yojana				X	X
1.5	Pre-production	DAC&FW	National Project on Management of Soil Health and Fertility (NPMSHF)	2008-09		To facilitate and promote Integrated Nutrient Management (INM) through judicious use of chemical fertilizers, including secondary and micro nutrients, in conjunction with organic manures and bio-fertilizers, for improving soil health and its productivity	X		X		
1.6	Pre-production	DAC&FW	Soil Health Management (SHM)	2014		To promote Integrated Nutrient Management (INM) through judicious use of chemical fertilisers including secondary and micro nutrients in conjunction with organic manures and bio-fertilisers for improving soil health and its productivity; strengthening of soil and fertiliser testing facilities to provide soil test based recommendations to farmers for improving soil fertility; ensuring quality control requirements of fertilisers, bio-fertilisers and organic fertilisers under Fertiliser Control Order, 1985; upgradation of skill and knowledge of soil testing laboratory staff, extension staff and farmers through training and demonstrations; promoting organic farming practices etc			X		

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
1.7	Pre-production	DAC&FW	Soil Health Card Scheme under SHM	2015		The scheme aims at promoting soil test based and balanced use of fertilisers to enable farmers to realise higher yields at lower cost.[3] also the main objective is to aware growers about the appropriate amount of nutrients for the concerned crop depending on the quality of soil			X		
1.8	Pre-production	DAC&FW	Establishment of Soil Testing Projects at village level by local entrepreneurs under Soil Health Management (SHM)	2015		The objectives include: i) Employment generation for rural youth ii) To improve timeliness in analysis of soil samples iii) Introduction of the Single Window approach from collection to issue of SHC so as to minimize delays and maximize convenience to farmers iv) Online delivery of soil health cards to the farmers using Soil Health Card Portal v) Provide soil testing facilities to farmers at their door step			X		
1.9	Pre-production	DAC&FW	Soil and Land Use Survey of India (SLUSI)	1958		To provide detailed scientific database on soil and land characteristics to the user departments for watershed-based soil and water conservation planning for Natural Resource Management	X	X	X		
1.10	Pre-Production	DAC&FW	Sub-Mission on Seeds & Planting Material (SMSP);			SMSP aims to increase production of certified / quality seed, to increase SRR, to upgrade the quality of farm-saved seeds, to strengthen the seed multiplication chain, to promote new technologies and methodologies in seed production, processing, testing, etc., to strengthen and modernizing infrastructure for seed production, storage, certification and quality, etc	X	X	X	X	X
1.11	Pre-Production		Kisan Credit Card	1998		To meet the comprehensive credit requirements of the agriculture sector	X	X	X	X	X
1.12	Pre-production	DAC&FW	CHAMAN (Coordinated Horticulture Assessment and Management using geo-informatics)	2014		d. Crop Inventory: 7 Major horticultural crops in selected districts of major states (185 districts in 12 states) e. Development and Management Planning: Post-Harvest Infrastructure, Aqua-horticulture, Orchard rejuvenation, Crop			X	X	X

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						Intensification, GIS Database creation, site suitability assessment and f. R&D: Crop identification, yield modeling and disease assessment, precision farming, new techniques and algorithms					
1.13	Pre-Production	DAC&FW	FASAL (Forecasting Agricultural output using Space, Agro meteorological and Land based observations)	2007-08		Crop production forecasts using remote sensing data			X	X	X
1.14	Pre-production	DAC&FW	NADAMS (National Agricultural Drought Assessment and Monitoring System)	1986		A system that helps in predicting and occurrence of droughts by providing almost perfect information on prevalence, severity level and persistence of agricultural drought right from the sub-district to the state level			X	X	X
1.15	Pre-Production	DAHD	Kisan Credit Cards to Livestock Farmers	2019		To ensure provision of easy and concessional credit and to bring all farmers under KCC fold				X	X
1.16	Pre-Production	Department of Land Resources- Ministry of Rural Development	Zamindari Abolition Act	1950	-	To abolish the intermediaries between the farmers and the state. Title of rights to the cultivator				X	
2	PRODUCTION										
2.1	Production	DAC&FW	Model Contract Farming (Promotion & Facilitation) Act	2018		To provide for improved production and marketing of agricultural produce and/or livestock and/or its product through holistic contract farming and to facilitate the contracting parties to develop mutually beneficial and efficient contract farming system, and also promote services contract, by putting in place a friendly and effective institutional mechanism and conducive regulatory and policy framework for contract farming and services contract or such other contracts and lay down procedures and systems and the matters connected therewith and incidental thereto				X	X
2.2	Production	DAC&FW	National Agroforestry Policy	2014		Encourage and expand tree plantation in complementarity and integrated manner with		X	X	X	

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						crops and livestock to improve productivity, employment, income and livelihoods of rural households, especially the small holder farmers					
2.3	Production	DAC&FW	'Green Revolution - Krishonnati Yojana'	2017-18	2019-20	<p>The Umbrella scheme incorporated 12 Schemes/Missions. These schemes look to develop the agriculture and allied sector holistically and scientifically to increase the income of farmers by enhancing production, productivity and better returns on produce. The 12 schemes are:</p> <ol style="list-style-type: none"> The mission for Integrated Development of Horticulture (MIDH) National Mission on Oil Seeds and Oil Palm (NMOOP) National Food Security Mission (NFSM) National Mission for Sustainable Agriculture (NMSA) Sub-Mission on Agriculture Extension (SMAE) Sub-Mission on Seeds & Planting Material (SMSP) Sub-Mission on Agricultural Mechanisation (SMAM) Sub-Mission on Plant Protection and Plant Quarantine (SMPPQ) Integrated Scheme on Agricultural Census, Economics and Statistics Integrated Scheme on Agricultural Cooperation Integrated Scheme on Agricultural Marketing (ISAM) National e-Governance Plan in Agriculture (NeGP-A) 	X	X	X	X	X
2.4	Production	DAC&FW	The mission for Integrated Development of Horticulture (MIDH)	2014		<p>Subsuming individual schemes on horticulture for strategic and integrated approach-</p> <ol style="list-style-type: none"> Promote holistic growth of horticulture sector, including bamboo and coconut through area-based & regionally differentiated strategies, which includes research, technology promotion, extension, post-harvest 	X	X	X	X	X

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						<p>management, processing and marketing, in consonance with comparative advantage of each state/region and its diverse agro-climatic features</p> <p>b. Encourage aggregation of farmers into farmer groups like FIGs/FPOs and FPCs to bring economy of scale and scope</p> <p>c. Enhance horticulture production, augment farmers, income and strengthen nutritional security</p> <p>d. Improve productivity by way of quality germplasm, planting material and water use efficiency through Micro Irrigation</p> <p>e. Support skill development and create employment generation opportunities for rural youth in horticulture and post-harvest management, especially in the cold-chain sector</p>					
2.4.1	Production	DAC&FW	a) National Horticulture Mission	2005-06		To enhance horticultural production and improve nutritional security and income support to farm households and others through area-based regionally differentiated strategies (now subsumed under MIDH)	X	X		X	X
2.4.2	Production	DAC&FW	b) Horticulture Mission for NE and the Himalayan States	2001-02		<p>a. To improve the production and productivity of horticulture crops by harnessing the potential of the region.</p> <p>b. Special emphasis on "Low Volume, High Value, Less Perishable Horticulture Crops".</p> <p>c. A horticulture-based farming system to be developed, thereby providing viable and ample opportunities for employment, especially for women, besides improving the productivity of land.</p> <p>(this mission continues as part of MIDH since 2014)</p>	X	X		X	X
2.4.3	Production	DAC&FW	c) National Horticulture Board	1984		Development of Commercial Horticulture through Production and Post-Harvest Management of	X	X	X	X	X

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						Horticulture Crops; Capital Investment Subsidy Scheme for construction/ expansion/ modernization of Cold Storages/Storages of Horticulture Products; Technology Development and Transfer for promotion of Horticulture; Market Information Scheme for horticulture Crops, Horticulture Promotion Services / Expert Services (continues as a part of MIDH since 2014)					
2.5	Production	DAC&FW	National Food Security Mission (NFSM)	2007-19	2019-20	<p>a. Increasing the production of rice, wheat and pulses through area expansion and productivity enhancement</p> <p>b. restoring soil fertility and productivity</p> <p>c. Creating employment opportunities and enhancing farm level economy</p> <p>Coarse cereals (now called nutri-cereals) were also included in the Mission from 2014-15 under NFSM. The interventions covered under NFSM include cluster demonstrations on an improved package of practices, demonstrations on cropping system, Seed distribution of high yielding varieties, farm machinery/resources conservation machinery/tools, efficient water application tools, plant protection measures, nutrient management/soil ameliorants, cropping system-based training to the farmers, etc</p>	X	X	X	X	X
2.5.1	Production	DAC&FW	National Mission on Oil Seeds and Oil Palm (NMOOP);	2014-15		<p>National Mission on Oilseeds and Oil Palm (NMOOP) envisages an increase in production of vegetable oils sourced from oilseeds, oil palm and TBOs from 7.06 million tonnes (average of 2007-08 to 2011-12) to 9.51 million tonnes by the end of Twelfth Plan (2016-17). The Mission is proposed to be implemented through three Mini Missions with specific targets as detailed below</p> <p>a. MM I on Oilseeds Achieve production of 35.51 million tones and productivity of 1328 kg/ha of oilseeds</p> <p>b. MM II on Oil Palm Bring additional 1.25</p>	X	X		X	X

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						<p>lakh hectare area under oil palm cultivation through area expansion approach in the States including utilization of wastelands with an increase in productivity of fresh fruit bunches (FFBs) from 4927 kg per ha to 15000 kg per ha.</p> <p>c. MM III on Tree Borne Oilseeds (TBOs) Enhance seed collection of TBOs from 9 lakh tonnes to 14 lakh tonnes and augment elite planting materials for area expansion under wasteland.</p> <p>With effect from 2018-19, NMOOP came to be merged with NFSM and was called NFSM (Oilseed & Oil Palm). In 2021-22, the scheme was again restructured as National Mission on Edible Oilseeds NMEO (Oilseeds) and NMEO (Oil Palm). The target is to increase the palm oil plantation to 10 lakh hectares by 2025-26. The targeted crude palm oil (CPO) is 11.20 lakh tonnes by 2025-26 and 28.11 lakh tonnes by 2029-30</p>					
2.5.2	Production	DAC&FW	NFSM (Millets)	2016-17		To achieve production of 36 million tons by 2024		X		X	X
2.5.3	Production	DAC&FW	NFSM (Pulses)	2016-17		To achieve 26 million tons of production by 2022		X		X	X
2.6	Production	DAC&FW	National Mission for Sustainable Agriculture (NMSA);			<p>a. To make agriculture more productive, sustainable, remunerative and climate-resilient by promoting location specific Integrated/Composite Farming Systems</p> <p>b. To conserve natural resources through appropriate soil and moisture conservation measures</p> <p>c. To adopt comprehensive soil health management practices</p> <p>d. To optimize utilization of water resources through efficient water management to expand coverage for</p>	X	X	X	X	X

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						<p>achieving 'more crop per drop'</p> <p>e. To develop the capacity of farmers & stakeholders in the domain of climate change adaptation and mitigation measures</p> <p>f. To pilot models in select blocks for improving the productivity of rainfed farming</p> <p>To establish an effective, inter and intra Departmental/Ministerial co-ordination for accomplishing key deliverables of the National Mission for Sustainable Agriculture under the aegis of NAPCC</p>					
2.6.1	Production	DAC&FW	National Bamboo Mission	Revised 2019		<p>i) Enhancement of productivity in non-forest land, both Government and private</p> <p>ii) Innovations in value addition and new product development</p> <p>iii) Development of market infrastructure and linkages with farmer producers such as cooperatives / FPCs / federated SHGs</p> <p>iv) Strengthening of existing bamboo-based industry and exploring new emerging areas to make the industry competitive</p> <p>v) Extensive IEC campaigns, skill development and R&D for bamboo as an environmentally friendly, fast growing substitute for wood</p>	X	X	X	X	X
2.6.2	Production	DAC&FW	Rainfed Area Development (RAD) and Climate change			Sustainable Production, remunerative and climate-resilient, conserve natural resources with optimize utilization of water "Per Drop More Crop"	X	X	X	X	X
2.6.3	Production	DAC&FW	National Rainfed Area Authority (NRAA)	2006		To provide the much-needed knowledge inputs regarding systematic up-gradation and management of the country's dry land and rainfed agriculture	X	X	X	X	X
2.6.4	Production	DAC&FW	Mission Organic Value Chain Development in North Eastern	2015		To provide end-to-end support to the farmers from farm to fork including quality production, effective post-harvest management, value addition	X	X	X		

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
			Region (MOVCD NER)			through processing and direct market linkages to national and international markets. Transformation of farmer clusters into Farmer Producer Companies (FPCs) empowers the growers with institutional mechanisms, collective production and processing strength for quality and quantity and ensures the emergence of a new breed of organic agri-enterprises					
2.6.5	Production	DAC&FW	National Centre of Organic Farming (NCOF)	2004		<ul style="list-style-type: none"> a. Promotion of organic farming in the country through technical capacity building of all the stakeholders including human resource development, transfer of technology, promotion and production of quality organic and biological inputs. b. To act as nodal quality control laboratory for analysis of biofertilizers and organic fertilizers as per the requirement of Fertilizer Control Order (FCO, 1985). c. Revision of standards and testing protocols keeping in view the advances in research and technology and bringing remaining organic inputs under quality control regime. d. Organic input resource management, technology development through support to research and market development. e. To maintain National and Regional culture collection bank of biofertilizer for supply to production units, development & procurement and efficacy evaluation of biofertilizer strains and mother cultures. f. Promotion of Organic Farming through low-cost certification system known as "Participatory 	X	X	X	X	X

A		B	C	D		E	F							
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'							
				D1	D2		G1	G2	G3	G4	G5			
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5			
2.6.6	Production	DAC&FW	Paramparagat Krishi Vikas Yojana (PKVY)	2015		Organic agriculture is the production of agricultural products free from chemicals and pesticides residues by adopting eco-friendly low-cost technologies "Paramparagat Krishi Vikas Yojana "is an elaborated component of Soil Health Management (SHM) of the National Mission of Sustainable Agriculture (NMSA). Under PKVY, Organic farming is promoted through the adoption of organic village by cluster approach and PGS certification	X	X	X					
2.7	Production	DAC&FW	Sub Mission on Agro-Forestry (SMAF)	2016		<ul style="list-style-type: none"> a. To encourage and expand tree plantation in a complementary and integrated manner with crops and livestock to improve productivity, employment opportunities, income generation and livelihoods of rural households, especially the small farmers b. To ensure availability of quality planting material like seeds, seedlings, clones, hybrids, improved varieties, etc c. To popularise various Agroforestry practices/models suitable to different agro-ecological regions and land use conditions d. To create a database, information, and knowledge support in the area of agroforestry e. To provide extension and capacity building support to the agroforestry sector 	X	X	X	X	X			

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
2.8	Production	DAC&FW	Sub-Mission on Agricultural Mechanisation (SMAM)	revised 2018-19		<ul style="list-style-type: none"> a. Increasing the reach of farm mechanization to small and marginal farmers and to the regions where the availability of farm power is low b. Promoting „Custom Hiring Centres" to offset the adverse economies of scale arising due to small landholding and high cost of individual ownership c. Creating hubs for hi-tech & high-value farm equipment d. Creating awareness among stakeholders through demonstration and capacity building activities e. Ensuring performance testing and certification at designated testing centres located all over the country 		X		X	X
2.9	Production	DAC&FW	Sub-Mission on Plant Protection and Plant Quarantine (SMPPQ)			SMPPQ aims to minimize loss to quality and yield of agricultural crops from the ravages of insect pests, diseases, weeds, nematodes, rodents, etc. and to shield our agricultural bio-security from the incursions and spread of alien species, to facilitate exports of Indian agricultural commodities to global markets, and to promote good agricultural practices, particularly concerning plant protection strategies and strategies	X	X	X	X	X
2.9.1	Production	DAC&FW	a. Strengthening and Modernization of Pest Management Approach in India (SMPMA)			<ul style="list-style-type: none"> a. Implementation of Insecticide Act, 1968 b. Integrated Pest Management (IPM): IPM seeks to promote cultural, mechanical, biological methods of pest control and recommends the use of chemical pesticides as a measure of last resort c. Locust Control and Research 	X		X	X	
2.9.2	Production	DAC&FW	b. Strengthening and Modernization of Plant Quarantine Facilities in India (SMPQF)			To prevent the introduction and spread of exotic pests that are harmful to crops and bio-security of the country by regulating/restricting the import of plants/plant products and monitoring import of agriculture commodities as per the agreed	X		X	X	

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				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						conditions prescribed in the Plant Quarantine Order, 2003 notified under provisions of Destructive Insect and Pests Act, 1914					
2.9.3	Production	DAC&FW	c. Monitoring of Pesticide Residue at the National Level (MPRNL)			The scheme is ongoing with the participation of 31 laboratories all over the country. The participating laboratories collect the food commodities samples from various Agriculture Produce Marketing Committee (APMC) markets and Public Distribution System (PDS)	X	X		X	
2.9.4	Production	DAC&FW	The Farmers (Empowerment and protection) Agreement on Price Assurance and Farm Services Rules, 2020	2020		To provide for a national framework on farming agreements that protects and empowers farmers to engage with agri-business firms, processors, wholesalers, exporters, or large retailers for farm services and sale of future farming produce at a mutually agreed remunerative price framework in a fair and transparent manner	X			X	X
2.10	Production	DAC&FW	Rashtriya Krishi Vikas Yojana- Remunerative Approaches for Agriculture and Allied sector Rejuvenation (RKVY-RAFTAAR)	2014	2017	The main objective of Rashtriya Krishi Vikas Yojana is <ul style="list-style-type: none"> a. To develop farming as the main source of economic activity b. Some of the objectives also include: Risk mitigation, strengthening the efforts of the farmers along promoting agri-business entrepreneurship through the creation of agri-infrastructure c. Providing all the states with autonomy and flexibility in making plans as per their local needs d. Helping farmers in increasing their income by encouraging productivity and promoting value chain addition linked production models e. To reduce the risk of farmers by focusing on increasing the income generation through mushroom cultivation, integrated farming, floriculture, etc f. Empowering the youth through various skill development, 	X		X	X	X

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						innovation, and agri-business models					
2.11	Production	DAC&FW	Multiple Cropping Programme	1967-68		This programme envisages that more crops per year per hectare are raised			X	X	X
2.12	Production	DAC&FW	High Yielding Variety Programme	1966		It envisaged popularisation of the high yielding varieties of paddy, wheat, maize, jowar and bajra over fairly large areas			X	X	X
2.13	Production	DAC&FW	Agricultural Price Commission	1965		To recommend Minimum Support Prices (MSPs), to motivate cultivators and farmers to adopt the latest technology to optimise the use of resources and increase productivity					X
2.14	Production	DAC&FW	Yellow Revolution	1986-87		To increase the production of Edible oilseeds in the country to meet the domestic demand	X	X	X	X	X
2.15	Production	DAC&FW	Golden Revolution	1991-2003		Panned investment in the horticulture sector to make it highly productive	X	X	X	X	X
2.16	Production	DAC&FW	Integrated Cereals Development Programmes in Coarse Cereals ICDP-CC based Cropping Systems Areas under Macro Management of Agriculture - MMA.				X	X	X	X	X
2.17	Production	DAC&FW	Initiative for Nutritional Security through Intensive Millet Promotion – INSIMP a part of Rashtriya Krishi Vikas Yojana” – RKVY which is the only comprehensive initiative to support millet production.	2011-12		To catalyse increased production of millets in the country and enhance India's nutritional security. The scheme proposed to bring 0.5million hectares (ha) under millet cultivation and has made provision to supply hybrid seeds to the farmers. It has also proposed to establish composite millet processing centres, costing Rs 4,00,000, that handle de-stoning, de-hulling, flaking and rava- making, across the country. In the initial phase of implementation, the scheme has been criticized by civil society groups on the ground that it is trying to promote intensive mono-cropping of millets, which may defeat the purpose of millets farming	X	X	X	X	X
2.18	Production	DAC&FW	Rainfed Area Development Programme – RADP: a component of the Rashtriya	2011-12		<p>a. Increasing agricultural productivity of rainfed areas sustainably by adopting appropriate farming system-based approaches</p> <p>b. To minimise the adverse impact of</p>	X	X	X	X	X

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
			Krishi Vikas Yojana – RKVY.			possible crop failure due to drought, flood, or un-even rainfall distribution through the diversified and composite farming system c. Restoration of confidence in rainfed agriculture by creating sustained employment opportunities through improved on-farm technologies and cultivation practices d. Enhancement of farmer's income and livelihood support for the reduction of poverty in rainfed areas e. Convergence of relevant developmental programmes in the project area for optimal f. Utilisation of resources by establishing an integrated and coordinated system involving different sectors and institutions					
2.19	Production	DAC&FW	Model Contract Farming Act	2018		To integrate farmers with bulk purchasers including exporters, agro-industries, etc. for better price realization through mitigation of market and price risks to the farmers and ensuring smooth agro raw material supply to the agro industries, a "Model Contract Farming Act" has been prepared by the Ministry of Agriculture & Farmers Welfare for circulation to the States for its adoption			X	x	X
2.20	Production	DAHD	National Animal Disease Control Programme	2019		To control Foot & Mouth Disease and Brucellosis by vaccinating 100% cattle, buffalo, sheep, goat and pig population for FMD and 100% bovine female calves of 4-8 months of age for brucellosis for five years (2019-20 to 2023-24)	X		X	X	
2.21	Production	DAHD	Livestock Health and Disease Control	2002		To develop animal husbandry by providing financial assistance as Central share for control & containment of animal diseases	X		X	X	
2.22	Production	DAHD	National Livestock Policy	2013		a. Improve productivity and income to improve the socio-economic status of a vast majority of our livestock producers, most of which are	X	X	X	X	X

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						<p>women and small farmers</p> <p>b. To support R&D on issues about the livestock sector for improving production and productivity, bio-security and profitability</p> <p>c. To encourage establishment and growth of self-supporting financially viable, medium and large commercial livestock production units capable of adopting the latest technology including facility for processing and value addition</p> <p>d. To improve the productivity of livestock and poultry by promoting and disseminating the technologies developed by the research system</p> <p>e. To promote conservation of animal bio-diversity; conservation and genetic improvement of important indigenous breeds of livestock and poultry in the country</p> <p>f. To increase the availability of feed and fodder</p> <p>g. To strengthen overall animal health</p> <p>h. To focus on the production of quality livestock products as per the international standards for food safety</p> <p>i. To encourage value addition of livestock products like milk and milk products, eggs, wool and meat & meat products etc</p> <p>j. To expand the capacity of milk handled by organized dairy sector including the cooperatives</p> <p>k. To ensure transmission and application of improved technology and management practices to the doorstep of the farmers and the entrepreneurs</p> <p>To create an enabling environment to attract investment for improving</p>					

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						infrastructure support, livestock production, processing, value addition and marketing in the sector					
2.23.1	Production	DAHD	Operation Flood I	1970-80		<ul style="list-style-type: none"> a. Creating a flood of Milk by Increase production b. Increase the incomes of the rural population c. Provide milk to consumers at fair prices 	X	X	X	X	X
2.23.2	Production	DAHD	Operation Flood II	1981-85		<ul style="list-style-type: none"> a. Creating a flood of Milk by Increase production b. Increase the incomes of the rural population c. Provide milk to consumers at fair prices 	X	X	X	X	X
2.23.3	Production	DAHD	Operation Flood III	1985-96		<ul style="list-style-type: none"> a. Creating a flood of Milk by Increase production b. Increase the incomes of the rural population c. Provide milk to consumers at fair prices 	X	X	X	X	X
2.24	Production	DAHD	Pink Revolution			The modernization of the meat and poultry processing sector in India	X	X	X	X	X
2.25	Production	Coastal Aquaculture Authority	The Coastal Aquaculture Authority Act	2005		<ul style="list-style-type: none"> a. To regulate the aquaculture activities in the country b. To control the coastal environment destruction c. To produce more protein-rich food for the consumption of the increasing population d. To provide a livelihood to humans in commercial aquaculture activities e. To increase the existing species of aquatic animals and protect the coastal environment f. To utilize the aquatic and coastal land in a sustainable way of ensuring enough resources for our future generation 	X	X	X	X	X
2.26	Production	Department of Fisheries	National Policy on Marine Fisheries	2017		To ensure the health and ecological integrity of the marine living resources of India's Exclusive Economic Zone (EEZ) through sustainable harvests for the benefit of present and future generations of the nation. The overall strategy of the NPMF, 2017 is based on seven pillars, namely sustainable development,	X		X	X	X

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						socio-economic upliftment of fishers, the principle of subsidiarity, partnership, inter-generational equity, gender justice and precautionary approach					
2.27	Production	Department of Fisheries	Integrated Development and Management of Fisheries (structured plan scheme of blue revolution)	2015-16	2019-20	<ul style="list-style-type: none"> a. To fully tap the total fish potential of the country both in the inland and the marine sector and triple the production by 2020 b. To transform the fisheries sector as a modern industry with a special focus on new technologies and processes c. To double the income of the fishers and fish farmers with a special focus on increasing productivity and better marketing postharvest infrastructure including e-commerce and other technologies and global best innovations d. To ensure inclusive participation of the fishers and fish farmers in the income enhancement e. To triple the export earnings by 2020 with focus on benefits flow to the fishers and fish farmers including through institutional mechanisms in the cooperative, producer companies and other structures f. To enhance the food and nutrition security of the country 	X	X	X	X	X
2.28	Production	Department of Land resources	Neeranchal National Watershed Project	2016	2022	The Project Development Objective (PDO) of Neeranchal is to support WDC-PMKSY through technical assistance to improve incremental conservation outcomes and agricultural yields for communities in selected sites, and adoption of more effective processes and technologies into the broader PMKSY in participating states	X			X	
2.29	Production	Department of Land resources	Watershed Guidelines	2012					X	X	

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
2.30	Production	Department of Land resource s/Jal Shakti/D AC&FW	Pradhan Mantri Krishi Sinchai Yojana (PMKSY)	2015-16		<ul style="list-style-type: none"> a. Convergence of investment in irrigation at the field level b. Expand cultivable area under irrigation (हर खेत को पानी) c. Improve On-farm water use efficiency to reduce wastage of water d. Enhance the adoption of being precise in irrigation and other water-saving technologies (more crop per drop). The Integrated Watershed Management programme was subsumed into the current PMKSY on 26 October 2015 		X	X	X	
2.30.1	Production	Jal Shakti	PMKSY (Har Khet ko Pani) - implemented by Ministry of Water Resources, RD & GR	2015-16		<ul style="list-style-type: none"> a. Creation of new water sources through Minor Irrigation (both surface and groundwater) b. Repair, restoration and renovation of water bodies; strengthening carrying capacity of traditional water sources, construction rainwater harvesting structures (Jal Sanchay); c. Command area development, strengthening and creation of distribution network from source to the farm; d. Improvement in water management and distribution system for water bodies to take advantage of the available source which is not tapped to its fullest capacity (deriving benefits from low hanging fruits). At least 10% of the command area is to be covered under micro/precision irrigation. 		X	X	X	
2.30.2	Production	Department of Land resource s, Ministry of Rural Development	PMKSY (Watershed) - implemented by the Department of Land Resources.	2015-16		<ul style="list-style-type: none"> a. Water harvesting structures such as check dams, nala bund, farm ponds, tanks, etc. b. Capacity building, entry point activities, ridge area treatment, drainage line treatment, soil and moisture conservation, nursery 			X	X	

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						raising, afforestation, horticulture, pasture development, livelihood activities for the asset-less persons and production system & micro-enterprises for small and marginal farmers, etc. c. Effective rainfall management like field bunding, contour bunding/trenching, staggered trenching, land leveling, mulching etc.					
2.30.3	Production	DAC&FW	PMKSY (Per Drop More Crop - PDMC)	2015-17		To enhance water use efficiency in the agriculture sector by promoting appropriate technological interventions like drip & sprinkler irrigation technologies and encouraging the farmers to use water-saving and conservation technologies		X	X	X	
2.31	Production	Jal Shakti	Accelerated Irrigation Benefit Programme - implemented by Ministry of Water Resources, RD & GR.	2015-16		To provide financial assistance to State Governments to speed up the implementation of ongoing irrigation projects.			X	X	
2.32	Production	Department of Land Resources	Drought Prone Area Programme	1973-74		To minimise the adverse effects of drought on the production of crops and livestock and productivity of land, water and human resources ultimately leading to drought proofing of the affected areas. The programme also aims to promote overall economic development and improve the socio-economic conditions of the resource-poor and disadvantaged sections inhabiting the programme areas			X	X	
2.33	Production	Department of Land Resources	Desert Area Development Programme	1977-78		To minimise the adverse effect of drought and control desertification through rejuvenation of natural resource base of the identified desert areas			X	X	
2.34	Production	Department of Land Resources	Integrated Wasteland Development Programme	1985-86		It is precisely to restore the ecological imbalance by developing the degraded non-forest wastelands			X	X	
2.35	Production	Department of Land Resources	National Watershed Development Programme in Rainfed Areas	1990-91		a. Conservation, development and sustainable management of natural resources b. Enhancement of agricultural production and productivity in a sustainable	X		X	X	

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						<p>manner</p> <p>c. Restoration of ecological balance in the degraded and fragile rainfed ecosystems by greening these areas through an appropriate mix of trees, shrubs and grasses</p> <p>d. Reduction in the regional disparity between irrigated and rainfed areas</p> <p>e. Creation of sustained employment opportunities for the rural community including the landless</p>					
2.36	Production	DAC&FW	Extending Green Revolution to Eastern India under RKVY	2011-12		<p>a. To increase production & productivity of rice and wheat by adopting the latest crop production technologies</p> <p>b. To promote cultivation in rice fallow areas to increase cropping intensity and income of the farmers</p> <p>c. To create water harvesting structures and efficient utilization of water potential</p> <p>d. To promote post-harvest technology and marketing support</p>	X	X	X	X	X
2.37	Production		Intensive Agricultural District Programme	1961		The major objectives of the programme were to demonstrate the most effective ways of achieving a rapid and significant increase in agriculture production through the adoption of a package of improved practices and to suggest successful and innovations, approaches and procedures which could be adopted in similar areas of the country			X	X	X
2.38	Production		Intensive Agriculture Area Programme	1964-65		Greater emphasis is given to the development of scientific and progressive agriculture intensively in the areas which have High production potentials". The idea was to cover at least 20% of the cultivated area of the country. The emphasis was on import crops such as Wheat, Rice, Millets, Cotton, Sugarcane, Potato, Pulses, etc. The Intensive Agriculture Area programme			X	X	X

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						(IAAP) paved the way for Green Revolution in the country					
2.39	Production	DAHD	NDDB Act	1965	-	To extend the success of the Kaira Cooperative Milk Producers' Union (Amul) to other parts of India	X	X		X	X
2.40	Production	Ministry of Corporate Affairs	Companies Act (Amendment), Producer Company Act 2013	2013	-	To improve the standard of living of smallholders and ensure a good status of their available support, incomes and profitability	X	X		X	X
3.	POST-PRODUCTION										
3.1	Post-production	DAC&FW	The National Cooperative Development Corporation Act	1962	-	To provide for the incorporation and regulation of a corporation for planning and promoting programmes for the production, processing, marketing, storage, export and import of agricultural produce, foodstuffs, industrial goods, livestock, certain other commodities and services on co-operative principles and for matters connected therewith or incidental thereto				X	X
3.2	Post-production	DAC&FW	National Agricultural Cooperative Marketing Federation of India (NAFED)	1958		To promote Co-operative marketing of agricultural produce to benefit the farmers				X	X
3.3	Post-production	DAC&FW	Agricultural Produce Marketing (Development and Regulation) Act, 2003	2003	2017	To provide for the development of an efficient marketing system, promotion of agro-processing and agricultural exports lay down procedures and systems for putting in place an effective infrastructure for the marketing of agricultural produce	X			X	X
3.4	Post-production	DAC&FW	Model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act	2017		<ul style="list-style-type: none"> a. To provide for geographically restriction-free trade transaction of agricultural produce including livestock across the State/Union Territory (UT) and country b. To give freedom to the agriculturists to sell their products across time and space c. To enhance transparency in trade operations and price settlement mechanism through the adoption of electronic and another innovative forms of technology d. To promote the emergence of multiple channels for competitive marketing, agro- 				X	X

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						processing and agricultural export e. To encourage investments in the development of markets and marketing infrastructure					
3.5	Post-production	DAC&FW	Farmers Produce Trade and Commerce (Promotion and Facilitation), Rules, 2020	2020		To provide competitive alternative channels for sale and purchase of farmers' produce, to promote barrier-free inter-and intra- State trade and commerce of farmers' produce outside the physical markets and deemed markets notified under various State Agricultural Market legislatures, and to provide a facilitative framework for electronic trade and matters related thereto		X		X	X
3.6	Post-production	DAC&FW	Formation and Promotion of 10000 Farmer Producer Organization	2020	2023-24	To provide a holistic and broad-based supportive ecosystem to form new 10,000 FPOs to facilitate the development of vibrant and sustainable income-oriented farming and for overall socio-economic development and wellbeing of agrarian communities				X	X
3.7	Post-production	DAC&FW	Gramin Agricultural Markets (GrAMs)	2018		<ol style="list-style-type: none"> 1. First-mile aggregation/pooling of small lots to organise the supply chain 2. Integration with the national One India market 3. Community hubs to support local direct retail and improved farmer-consumer interface 4. Independent operations kept outside the ambit of regulated APMC market network 				X	X
3.8	Post-production	DAC&FW	Agri-Market Infrastructure Fund (AMIF)	2018		<ol style="list-style-type: none"> a. To improve marketing and supporting infrastructure in Gramin Agricultural Markets (GrAMs) as well as in regulated wholesale markets b. To provide a better farmer-consumer interface through the development of GrAMs as Farmer-Consumer Direct Markets c. To facilitate aggregation of the produce in GrAMs and establish forward linkages with the secondary markets of APMCs in the hub and spoke mode and also in Public-Private Partnership mode as 				X	X

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						well as to establish linkage with the processors, organized retailers and consumers including that with Food Parks and Integrated Cold-chain, etc d. To modernize the marketing, processing, storage and ancillary infrastructure/logistics including better assaying facilities in 585 regulated APMC markets to enhance marketing efficiency and promote inter-mandi and inter-State trade transactions by developing adequate logistics					
3.9	Post-production	DAC&FW	Promotion of National Agriculture Market (NAM) through Agri-Tech Infrastructure Fund (ATIF) or e-NAM	2016		a. To integrate markets first at the level of the States and eventually across the country through a common online market platform, to facilitate pan - India trade in agricultural commodities b. To streamline marketing/transaction procedures and make them uniform across all markets to promote the efficient functioning of the markets c. To promote better marketing opportunities for farmers/sellers through online access to more buyers/markets, removal of information asymmetry between farmer and trader, better and real-time price discovery based on actual demand and supply of Agri commodities, transparency in the auction process, prices commensurate with the quality of produce, online payment, etc. that contribute to marketing efficiency d. To establish quality assaying systems for quality assurance to promote informed bidding by buyers e. To promote stable prices and availability of quality products to consumers				X	X

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
3.10	Post-production	DAC&FW	Integrated Scheme for Agricultural Marketing (ISAM)	2014	XII plan period	<p>To provide farmers with access to competitive markets with adequate infrastructure including cold-chain logistics, to enable them to realise better prices on the one hand and provide nutritious food to consumers at stable and affordable prices on the other.</p> <p>The ISAM has the following five sub-schemes:</p> <ol style="list-style-type: none"> Agricultural Marketing Infrastructure (AMI) [the existing schemes of Grameen Bhandaran Yojana (GBY) and Development/Strengthening of Agricultural Marketing Infrastructure, Grading and Standardization (AMIGS) will be merged as AMI] Marketing Research and Information Network (MRIN) Strengthening of Agmark Grading Facilities (SAGF) Agribusiness Development (ABD) through Venture Capital Assistance (VCA) and Project Development Facility (PDF) Choudhary Charan Singh National Institute of Agriculture Marketing (NIAM) 				X	X
3.11	Post-production	MoFPI	Pradhan Mantri Kisan SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters)	2016-20		<p>Creation of modern infrastructure for food processing mega food parks/ clusters and individual units. To create effective backward and forward linkages - linking farmers, processors and markets. To create robust supply chain infrastructure for perishables</p>	X			X	X
3.11.1	Post-production	MoFPI	Mega Food Parks	2016-20		<p>To provide modern infrastructure for food processing units in the country. To ensure value addition of agricultural produce including dairy, fisheries etc. To establish a sustainable raw material supply chain for each cluster. To facilitate induction of the latest technology. To address the need of small and micro food processing enterprises by providing plug & play facilities. To provide an institutional mechanism for producers, processors, and retailers to work</p>				X	X

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				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						together to build the supply chain					
3.11.2	Post - production	MoFPI	Integrated Cold-chain and Value Addition Infrastructure	2016-20		To arrest post-harvest losses of horticulture & non-horticulture produce by providing financial assistance in setting up integrated cold-chain, preservation and value addition infrastructure facilities without any break from the farm gate to the consumer	X			X	X
3.11.3	Post - production	MoFPI	Creation/Expansion of Food Processing /Preservation capacities	2016-20		Creation/ expansion and/or modernization of processing/preservation capacities will help in increasing the level of processing, value addition and thereby reduction of wastage. The setting up of new units and modernization/ expansion of existing units will be covered under the scheme. The processing units undertake a wide range of processing activities depending on the processing sectors which results in value addition and/or enhancing the shelf life of the processed products	X			X	X
3.11.4	Post - production	MoFPI	Infrastructure for Agro-processing clusters	2016-20		To create modern infrastructure for food processing closer to production areas. To provide integrated and complete preservation infrastructure facilities from the farm gate to the consumer. To create effective backward and forward linkages by linking groups of producers/farmers to the processors and markets through a well-equipped supply chain	X			X	X
3.11.5	Post-production	MoFPI	Creation of Backward Forward Linkages	2016-20		To create effective backward & forward linkages for perishable Agri-Horti produce through setting up of primary processing centres / collection centres at farm gate, distribution hub and retail outlets at the front end. To provide preservation facilities for enhancing the shelf life of perishable agricultural produce resulting in better remunerative prices to farmers	X			X	X
3.11.6	Post-production	MoFPI	Food Safety Quality Assurance Infrastructure	2016-20		To establish a surveillance system for monitoring the quality and composition of food. To analyse the samples received from the processing industry and other stakeholders. To reduce the time for analysis of samples by reducing transportation time	X	X		X	X

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				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						of samples. To ensure compliance of international and domestic standards on food in case of exports as well as imports					
3.11.7	Post - production	MoFPI	Operation Green	2016-20		A scheme to fix the right prices for farmers' produce. It aims to ensure that farmers are given the right price for the resource created by them. The program focuses on organized marketing of TOP vegetables i.e. Tomatoes, Onions, and Potatoes by connecting the farmers with consumers.	X	X		X	X
3.11.8	Post - production	MoFPI	Production Linked Incentive Scheme for Food Processing Industry (PLISFPI)	2021-22 to 2026-27		Support Food manufacturing entities with stipulated minimum Sales and willing to make a minimum stipulated investment for expansion of processing capacity and Branding abroad to incentivise the emergence of strong Indian brands.: Support creation of global food manufacturing champions; Strengthen select Indian brand of food products for global visibility and wider acceptance in the international markets Increase employment opportunities of off-farm jobs, Ensuring remunerative prices of farm produce and higher income to farmers	X	X	X	X	X
3.12	Post - production	MoFPI	Aatmanirbhar Bharat- PMFME (PM Formalisation of Micro Food Processing Enterprises Scheme	2020-21 to 2024-25		The objectives of the scheme are to build the capability of microenterprises to enable: <ul style="list-style-type: none"> a. Increased access to credit by existing micro food processing entrepreneurs, FPOs, Self Help Groups and Co-operatives b. Integration with organized supply chain by strengthening branding & marketing c. Support for transition of existing 2,00,000 enterprises into a formal framework d. Increased access to common services like common processing facility, laboratories, storage, packaging, marketing and incubation services e. Strengthening of institutions, research and training in the food processing sector f. Increased access for the enterprises, to 				X	X

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						professional and technical support					
3.13	Post - production	MoFPI	Aatmanirbhar Bharat- Operation Greens (Top to Total)	2020-21 to 2024-25		The objective of the intervention is to protect the growers of fruits and vegetables from making distress sales due to lockdown and reduce the post-harvest losses	X	X		X	X
3.14	Post- production	Department of Food and Public Distribution	The Food Corporations Act	1964	-	To provide for the establishment of Food Corporations for purchase, storage, movement, transport, distribution and sale of food grains and other foodstuffs, setting up or assisting in setting up of rice mills, flour mills and other undertakings for the processing of food grains and other foodstuffs, and discharge other functions as in the Act	X				X
3.15	Post- production	Department of Food and Public Distribution	Food Corporation of India	1965		To implement the following objectives of the National Food Policy: <ul style="list-style-type: none"> a. Effective price support operations for safeguarding the interests of the poor farmers b. Distribution of foodgrains throughout the country for Public Distribution System (PDS) c. Maintaining a satisfactory level of operational and buffer stocks of foodgrains to ensure National Food Security 	X			X	X
3.16	Post- production	Department of Food and Public Distribution	The Warehousing Development and Regulation Act	2007	-	To make provisions for the development and regulation of warehouses, negotiability of warehouse receipts, establishment of a Warehousing Development and Regulatory Authority and matters connected therewith or incidental thereto	X	X		X	X
3.17	Post - production	Department of Food and Public Distribution	The Warehousing Corporations Act	1962		To provide for the incorporation and regulation of corporations for warehousing of agricultural produce and certain other commodities and matters connected therewith	X				X
3.18	Post- production	Department of Food and Public Distribution	WDRA			To regulate and ensure implementation of the provisions of the Warehousing (Development and Regulation) Act, 2007 for the development and regulation of warehouses, Regulations of Negotiability of Warehouse Receipts and promote orderly growth of the warehousing business					

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3.19	Post-production	Department of Food and Public Distribution	National Food Security Act	2013	-	Right to Food, with coverage of up to 75% of the rural population and up to 50% of urban population for receiving highly subsidized foodgrains under Targeted Public Distribution System, besides other components.	X			X	X
3.20	Post-production	Department of Food and Public Distribution	Central Warehousing Corporation	1962		It aims to provide reliable, cost-effective, value-added, integrated warehousing and logistics solutions in a socially responsible and environmentally friendly manner	X			X	X
3.21	Post-production	Ministry of Commerce and Industry	Agricultural Product Export Development Authority (APEDA)	1985		Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Agricultural and Processed Food Products Export Development Authority Act passed by the Parliament in December 1985 (2 of 1986) to promote and develop agriculture exports of its scheduled products	X			X	X
3.22	Post-production	Ministry of Commerce and Industry	Marine Product Export Development Authority (MPEDA)	1972		The Marine Products Export Development Authority is responsible for the development of the marine industry with specialisation in marine export	X			X	X
3.33	Post-production	Ministry of Commerce and Industry	Spices Board Act	1986		To provide for the constitution of a Board for the development of export of spices and for the control of cardamom industry including the control of cultivation of cardamom and matters connected therewith	X	X	X	X	X
3.34	Post-production	Ministry of Commerce and Industry	Credit Guarantee Trust Fund for Micro & Small Enterprises (CGTMSE)	2000		To provide collateral free credit facility to the new as well as existing Micro and Small enterprises. The maximum loans limit has been enhanced from. Rs. 100 lakhs to. Rs. 200 lakhs. Government of India provides funds for Micro Finance Programme to SIDBI which is used for security deposit requirement of the loan amount from the MFIs/NGOs					X
3.35	Post-production	DAC&FW	Integrated Scheme on Agricultural Marketing (ISAM);			ISAM aims to develop agricultural marketing infrastructure; to promote innovative and latest technologies and competitive alternatives in agriculture marketing infrastructure; to provide infrastructure facilities for grading, standardization and quality certification of agricultural produce; to establish a nation-	X	X		X	X

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						wide marketing information network; to integrate markets through a common online market platform to facilitate pan-India trade in agricultural commodities, etc					
3.36	Post-production	DAC&FW	Integrated Scheme on Agriculture Cooperation (NCDC)			Construction & renovation of godowns	X				X
3.37	Post-production	DAC&FW	Rastriya Krishi Vikas Yojana (RKVY)	2007		<ul style="list-style-type: none"> a. Risk mitigation, strengthening the efforts of the farmers along with promoting agri-business entrepreneurship through the creation of agri-infrastructure b. Providing all the states with autonomy and flexibility in making plans as per their local needs c. Helping farmers in increasing their income by encouraging productivity and promoting value chain addition linked production models d. To reduce the risk of farmers by focusing on increasing the income generation through mushroom cultivation, integrated farming, floriculture, etc e. Empowering the youth through various skill development, innovation, and agri-business models 	X	X	X	X	X
3.38	Post-production	Department of consumer affairs	Essential Commodities Act	1955	-	To maintain uninterrupted production, supply and distribution of essential commodities in the country, prevent hoarding	X	X			
3.39	Post-production	Department of consumer affairs	The Essential Commodities (Amendment) Act, 2020	2020		It aims to remove the "...stringent restrictions on stock, movement and price control of agricultural foodstuffs for attracting private investments in agricultural marketing and infrastructure"	X			X	X
3.40	Post-production	Department of consumer affairs	Prevention of Black Marketing and Maintenance of Supply of Essential Commodities Act, 1980	1980		To provide for detention in certain cases for prevention of Black-marketing and maintenance of supplies of commodities essential to the community and matters connected therewith				X	X

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3.41	Post-production	MSME	Market Promotion Scheme			To provide financial assistance on International Cooperation		X				X
3.42	Post-production	DAHD	Infrastructure Development Fund	2017-18		To modernize the milk processing plants and machinery and to create additional infrastructure for processing more milk (The Animal Husbandry Infrastructure Development Fund (AHIDF) and The Dairy Infrastructure Development Fund (DIDF) have been merged into one single fund. The scheme for supporting to Dairy Cooperatives and Farmers Producers Organisation is also subsumed into it)				X		X
3.43	Post-production	Department of Fisheries (Blue Revolution)	Pradhan Mantri Matsya Sampada Yojana	2020-21	2024-25	<ul style="list-style-type: none"> a. Harnessing of fisheries potential in a sustainable, responsible, inclusive and equitable manner b. Enhancing fish production and productivity through expansion intensification, diversification and productive utilization of land and water c. Modernizing and strengthening of the value chain - post-harvest management and quality improvement d. Doubling fishers and fish farmers' incomes and generation of employment e. Enhancing contribution to Agriculture GVA and exports f. Social, physical and economic security for fishers and fish farmers g. Robust fisheries management and regulatory framework 	X	X	X	X	X	
3.44	Post-production	Department of Fisheries	FISH COPFED submitted vision to dept of fisheries for set up of 500 FPOs under PM Matsya Sampada Yojana				X	X	X	X		X
3.45	Post-production	National Rural Infrastructure Develop	Pradhan Mantri Gram Sadak Yojana III	2019		a. Consolidation of the rural road network by up-gradation and connecting inhabitants to GrAMs,	X	X				X

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		ment agency				Higher secondary schools, hospitals b. Easy and faster movements to and for food processing units, markets and other related enterprises					
3.46	Post-production	DAC&FW	National Centre for Cold-chain Development	2012		Operationalised as a PPP structured body to recommend appropriate policy framework for holistic development of cold-chain, recommend standards and protocols for cold-chain infrastructure, suggest guidelines for human resource development and	X	X	X	X	X
3.47	Post-production	Department of consumer affairs	Cold Storage Order	1980			X	X			X
3.48	Post-production	Department of consumer affairs	Price Stabilisation Fund	2015		To help regulate the price volatility of important agricultural commodities like onion, potatoes and pulses were also added subsequently. The scheme provides for maintaining a strategic buffer of aforementioned commodities for subsequent calibrated release to moderate price volatility and discourage hoarding and unscrupulous speculation. For building such stock, the scheme promotes direct purchase from farmers/farmers' association at farm gate/Mandi	X	X			
4	CONSUMPTION										
4.1	Consumption	Health	National Health Mission	2005		It envisages universal access to equitable, affordable & quality health care services to public	X				
4.2	Consumption	Health	National Rural Health Mission	2005		To provide accessible, affordable and quality health care to the rural population, especially the vulnerable groups	X				
4.3	Consumption	Health	Integrated Child Development Service	1975		To improve the nutrition and health status of children in the age group of 0-6 years, and to enhance the capability of the mother to look after the normal health and nutrition needs through proper nutrition and health education	X			X	
4.4	Consumption	NITI	Transforming Nutrition in India (Poshan Abhiyaan)	2018		To formulate overall policies and guidelines, and monitors all nutrition-based schemes, highlighting a life-cycle approach	X				X
4.5	Consumption	DAC&FW	Participatory Guarantee System of India: Operational Manual for	2015		Participatory Guarantee System (PGS) is a quality assurance initiative that is locally relevant, emphasize the participation of stakeholders, including		X	X	X	

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			Domestic Organic Certification (national Mission for Sustainable Agriculture)			producers and consumers and operate outside the framework of third-party certification					
4.6	Consumption	DAC&FW	PM Kisan Samman Nidhi	2018		To supplement the financial needs of all landholding farmers' families in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income as well as for domestic needs. Under the Scheme, an amount of Rs.6000/- per year is released by the Central Government online directly into the bank accounts of the eligible farmers under Direct Benefit Transfer mode, subject to certain exclusions	X	X	X		
4.7	Consumption	Department of Food and Public Distribution	Cash Transfer of Food Subsidy Rule	2015		The DBT experiment aims to <ul style="list-style-type: none"> a. Reduce the need for huge physical movement of foodgrains b. Provide greater autonomy to beneficiaries to choose their consumption basket c. Enhance dietary diversity d. Reduce leakages e. Facilitate better targeting promote financial inclusion 	X	X	X	X	X
4.8	Consumption	Department of Food and Public Distribution	One Nation One Ration Card Scheme	2019		<ul style="list-style-type: none"> a. Reforms in the public distribution system b. Access of food grains to each beneficiary c. Integrating all the Indian states and UTs in the scheme by March 2021 	X	X	X	X	
4.9	Consumption	Department of Food and Public Distribution	Targeted Public Distribution System	1997		Emphasizes the implementation and identification of the poor for proper arrangement and delivery of food grains	X	X		X	X
4.10	Consumption	Department of Food and Public Distribution	Antyodaya Anna Yojana	2000		To provide highly subsidised food to millions of the poorest families (poorest of the poor)	X	X		X	X
4.11	Consumption	Women and Child	Saksham Anganwadi and POSHAN 2.0 (Umbrella ICDS - Anganwadi Services,	2021		Umbrella ICDS - Anganwadi Services, Poshan Abhiyan, Scheme for Adolescent Girls, National Creche Scheme)	X				

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			Poshan Abhiyan, Scheme for Adolescent Girls, National Creche Scheme)										
4.12	Consumption	Ministry of Finance	Atal Pension Yojana	2010-11, relaunch 2015		A pension scheme for citizens of India is focused on the unorganized sector workers. Under the APY, guaranteed minimum pension of Rs. 1,000/- or 2,000/- or 3,000/- or 4,000 or 5,000/- per month are given at the age of 60 years depending on the contributions by the subscribers	X		X	X			
4.13	Consumption	Ministry of Education	Mid-Day Meal Scheme	1995		<ul style="list-style-type: none"> a. To increase the enrolment of the children belonging to disadvantaged sections in the schools b. Leading enrolment to increased attendance in the schools c. To retain children studying in classes 1-8 d. To provide nutritional support to the children of the elementary stage in drought-affected areas 	X			X			
4.14	Consumption	Department of consumer affairs	Bureau of Indian Standards	2016		Harmonious development of the activities of standardization, marking and quality certification of goods and for matters connected therewith or incidental thereto	X	X		X			
4.15	Consumption	Department of consumer affairs	Food Safety and Standard Act	2006		To consolidate the laws relating to food and to establish the Food Safety and Standards Authority of India for laying down science-based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import, to ensure availability of safe and wholesome food for human consumption and matters connected therewith or incidental thereto	X	X				X	
4.16	Consumption	Department of consumer affairs	Consumer Protection act	2019		To protect the interests of consumers and for the said purpose, to establish authorities for timely and effective administration and settlement of consumers' disputes and matters connected therewith or incidental thereto	X	X					
4.17	Consumption	Department of Rural	Annapurna Yojana	2000-21		The Annapurna Yojana is a senior citizen scheme aimed at people over 35 years of age. It is meant for people who are not getting a	X			X			

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		Development											
5	SUPPORT												
5.1	Support	DAC&FW	Market Intervention Scheme and Price Support Scheme			To provide remunerative/guaranteed prices to the oilseeds, cereal, copra, sugarcane and raw jute. Pulses & cotton growers in case of price fall below the Minimum Support Price (MSP) declared by Government of India in both crop seasons i.e., Rabi & Kharif every year					X		
5.2	Support	DAC&FW	Modified National Agricultural Insurance Scheme (MNAIS)			To provide insurance coverage and financial support to the farmers in the event of prevented sowing and failure of any of the notified crops as an effect of natural calamities, pests and diseases, to support the farmers to adopt progressive farming practices, high-value inputs and better technology in Agriculture, to help stabilize farm incomes mainly in disaster years					X		
5.3	Support	DAC&FW	National Agricultural Insurance Scheme (NAIS)- revamped as PMFBY	1999-2000		The National Agricultural Insurance Scheme (NAIS) was introduced from 1999-2000 replacing the erstwhile Comprehensive Crop Insurance Scheme (CCIS). The main objective of the scheme is to protect the farmers against crop losses suffered on account of natural calamities such as drought, flood, hailstorm, cyclones, fire pests and diseases					X		
5.4	Support	DAC&FW	Weather Based Crop Insurance Scheme (WBCIS)			To provide insurance protection to the farmers against adverse weather incidence, such as deficit and excess rainfall, high or low temperature, humidity etc. which are deemed to impact adversely the crop production. It has the advantage to settle the claims within the shortest possible time					X		
5.5	Support	DAC&FW	Pradhan Mantri Fasal Bima Yojana	2020		PMFBY aims at supporting sustainable production in the agriculture sector by way of: <ul style="list-style-type: none"> a. Providing financial support to farmers suffering crop loss/damage arising out of unforeseen events b. Stabilizing the income of farmers to ensure their continuance in farming 					X		

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						<ul style="list-style-type: none"> c. Encouraging farmers to adopt innovative and modern agricultural practices d. Ensuring creditworthiness of the farmers, crop diversification e. Enhancing growth and competitiveness of agriculture sector besides protecting the farmers from production risks 					
5.6	Support	DAC&FW	Interest subsidy for short term credit to farmers						X		
5.7	Support	DAC&FW	m-Kisan portals	2013		The project conceptualized, designed and developed in-house within the Department of Agriculture & Cooperation USSD has widened the outreach of scientists, experts and Government officers posted down to the Block level to disseminate information, give advisories and provide advisories to farmers through their mobile telephones. SMS Portal was inaugurated by the Hon'ble President of India on July 16, 2013 and since its inception, nearly 327 crore messages or more than 1044 crore SMSs have been sent to farmers throughout the length and breadth of the country. These figures are rising ever since				X	
5.8	Support	DAC&FW	Pm Kisan Maandhan Yojana	2019		The Pradhan Mantri Kisan Maan-Dhan Yojana (PM-KMY) provides for an assured monthly pension of Rs. 3000/- to all landholding Small and Marginal Farmers (SMFs), whether male or female, on their attaining the age of 60 years	X	X		X	
5.9	Support	DAC&FW	RKVY- Agri-Business Incubators (R-ABI)			<ul style="list-style-type: none"> a. To achieve "Lab to land" - new technology/varieties to farmers b. To promote innovation, entrepreneurship and business creation c. To create employment opportunities for youth in agriculture d. To facilitate technical, legal, financial, intellectual property services to agripreneurs e. To promote R&D, commercial technology transfer 				X	

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						f. Capacity building of existing agri-incubator					
5.10	Support	DAC&FW	Pradhan Mantri Annadata Aay Sanrakshana Abhiyan (PM-AASHA)	2018		Aimed towards ensuring remunerative prices to farmers for their produce. The new Umbrella Scheme is comprised of Price Support Scheme, Price Deficiency Payment Scheme and Pilot of Private Procurement and Stockist Scheme This step aims at protecting the farmers' income which is expected to go a long way towards the welfare of farmers	X	X		X	
5.11	Support	DAC&FW	(4) Sub-Mission on Agriculture Extension (SMAE);			SMAE aims to strengthen the ongoing extension mechanism of State Governments, local bodies, etc., achieving food and nutritional security and socio-economic empowerment of farmers, to institutionalize programme planning and implementation mechanism, to forge effective linkages and synergy amongst various stakeholders, to support HRD interventions, to promote pervasive and innovative use of electronic/print media, inter-personal communication and ICT tools, etc	X	X	X	X	X
5.12	Support	DAC&FW	a. SUPPORT TO STATE EXTENSION PROGRAMMES FOR EXTENSION REFORMS (ATMA, Centrally Sponsored Scheme)			The scheme promotes decentralized farmer-driven and farmer-accountable extension system through an institutional arrangement for technology dissemination in the form of an Agricultural Technology Management Agency (ATMA) at the district level			X	X	
5.13	Support	DAC&FW	b. MASS MEDIA SUPPORT TO AGRICULTURAL EXTENSION			Agriculture-related programmes are broadcast through 180 Narrow Casting Centres, 18 Regional Centres & 1 National Centre of Doordarshan Kendras and 96 FM Station Radio for 30 minutes, five/ six days a week				X	
5.14	Support	DAC&FW	c. Establishment of Agri-Clinic and Agri-Business Centres by Agriculture Graduates (ACABC)	2002		To supplement the efforts of public extension, support agricultural development and create gainful self-employment opportunities to unemployed youths with a qualification in agriculture and allied sectors	X	X		X	
5.15	Support	DAC&FW	d. Support to Central Institutes/DoE			HRD support to MANAGE, EEI, Model Training Courses, Exhibitions and Fairs				X	X

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5.16	Support	DAC&FW	e. Kisan Call Centres	2004		This Scheme provides agriculture-related information to the farming community through toll-free telephone lines. A countrywide common eleven-digit number 1800-180-1551 has been allotted for Kisan Call Centre			X	X	
5.17	Support	DAC&FW	(11) National e-Governance Plan in Agriculture (NeGP-A).			To bring farmer centricity & service orientation to the programmes; to enhance reach & impact of extension services; to improve access of farmers to information & services throughout crop-cycle; to build upon, enhance & integrate the existing ICT initiatives of Centre and States; and to enhance efficiency & effectiveness of programs through making available timely and relevant information to the farmers for increasing their agriculture productivity				X	X
5.18		DAC&FW	Empowered Body on Doubling Farmers Income	2016	2022(24)	To monitor the implementation of recommendations made by the DFI Committee and guide on related matters	X	X	X	X	X
5.19	Production	DAHD	Dairy Entrepreneurship Development Scheme	2010 (revised venture capital scheme)		<ul style="list-style-type: none"> a. To promote setting up of new/modern dairy farms for clean milk production b. To encourage rearing of heifer calf c. To improve the quality & traditional technology to handle milk on a commercial scale d. To bring structural changes in the unorganized sector so that initial milk processing can be taken up at the village level itself e. To generate self-employment & provide infrastructure mainly for the unorganised sector 	X	X	X	X	
5.20	Support	Ministry of New and Renewable Energy	PM-Kisan Energy Security and Upliftment Campaign (KUSUM) Scheme or Pradhan Mantri Kisan Energy Suraksha and Utthan Maha Abhiyan (Kusum) Yojana	2019		PM-KUSUM is aimed at ensuring energy security for farmers in India, along with honouring India's commitment to increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030 as part of Intended Nationally Determined Contributions (INDCs).	X	X	X	X	X

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5.21	Support	Ministry of Petroleum and Natural Gas	Pradhan Mantri Ujjwala Yojana	2016		<ul style="list-style-type: none"> a. To empower women and protect their health b. To minimize health issues arising from the use of unclean fossil fuel and other fuel while cooking c. To control indoor pollution from the use of fossil fuel which causes respiratory issues d. To prevent degradation of the purity of the environment that is compromised by widespread usage of unclean cooking fuel 			X	X	X
5.23	Support	Ministry of Power	National Rural Electrification Policy	2006		Goals include the provision of access to electricity to all households by the year 2009, quality and reliable power supply at reasonable rates and minimum lifeline consumption of 1 unit/household/day as a merit good by the year 2012				X	X
5.24	Support	Ministry of Power	Deen Dayal Upadhyay Gram Jyoti Yojana	2014		<ul style="list-style-type: none"> a. To provide electricity to all villages b. Feeder separation to ensure sufficient power to farmers and regular supply to other consumers c. Improvement of sub-transmission and distribution networks to improve the quality and reliability of the supply d. Metering to reduce the losses 			X	X	X
5.25	Support	Ministry of Railways	Kisan Rail Service	2020		The primary objective of running Kisan Rail trains is to increase the income in the farm sector by connecting production centres to markets and consumption centres, at a lower cost	X				X
5.26	Support	Ministry of PanchayatiRaj	Community Development Blocks	1952		To provide for a substantial increase in the country's agricultural programme, and improvements in systems of communication, in rural health and hygiene, and rural education and also to initiate and direct a process of integrated culture change aimed at transforming the social and economic life of villagers				X	
5.27	Support		National Extension Service	1953		The National Extension Service (NES) programme was launched with the idea of having wider coverage at less cost and more people's participation				X	

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5.28	Support	Department of Fisheries	National Scheme for Welfare of Fishermen			To provide financial assistance to fishers for construction of house among other things. For housing, the State Governments may ensure equitable distribution of houses among all villages in proportion to the number of eligible fishermen, as far as possible				X	
5.29	Support	MSME	A Scheme for Promoting Innovation, Rural Industry & Entrepreneurship (ASPIRE)	2015		The scheme focusses on setting up of: (a) Livelihood Business Incubation Centre (LBI), (b) Technology Business Incubation Centre (TBI) and (c) Fund of Funds (FoF) under SIDBI					X
5.30	Support	Department of Rural Development	MGNREGA	2005		<ul style="list-style-type: none"> a. Providing not less than one hundred days of unskilled manual work as guaranteed employment in a financial year to every household in rural areas as per demand, resulting in the creation of productive assets of prescribed quality and durability b. Strengthening the livelihood resource base of the poor c. Proactively ensuring social inclusion d. Strengthening Panchayati Raj Institutions 	X	X		X	X
5.31	Support	Ministry of Finance	The Central Goods and Services Tax Rules	2017		It is collected from point of consumption and not point of origin like previous taxes					X
5.32	Support	Ministry of Finance	Jan Dhan Yojana	2014		To expand affordable access to financial services such as bank accounts, remittances, credit, insurance and pensions	X	X	X	X	X
5.33	Support	National Rural Infrastructure Development agency	National Rural Livelihood Mission	2011	2015	"To reduce poverty by enabling the poor households to access gainful self-employment and skilled wage employment opportunities, resulting in appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots institutions of the poor"	X	X		X	X
5.34	Support	Department of Rural Development	Start-up village entrepreneurship programme (sub-scheme to DAY-NRLM)	2016		To support the rural poor come out of poverty, supporting them set up enterprises and provide support till the enterprises stabilize. SVEP focuses on providing self-employment opportunities with financial assistance and training in business management and soft skills while creating local	X	X		X	X

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
						community cadres for the promotion of enterprises. It addresses three major pillars of rural start-ups namely – finances, incubation and skill ecosystems					
5.35	Support	NITI	Women Entrepreneurship Platform (WEP)	2018		To help women realize their entrepreneurial aspirations, scale-up innovative initiatives and chalk-out sustainable, long-term strategies for their businesses	X			X	X
5.36	Support	NITI	Atal Innovation Mission	2016		To promote innovation and entrepreneurship in the country				X	
5.37	Support	NITI	Atal Incubation Centres (AIC)	2019		To set up incubators around the country, in a mix of Tier 1, 2 and 3 cities					
5.38	Support		Regional Rural Bank Act	1976		An Act to provide for the incorporation, regulation and winding up of Regional Rural Banks to develop the rural economy by providing, for the purpose of development of agriculture, trade, commerce, industry and other productive activities in the rural areas, credit and other facilities, particularly to the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs, and for matters connected therewith and incidental thereto	X		X	X	X
5.39	Support		National Bank for Agricultural and Rural Development	1982		NABARD came into existence on 12 July 1982 by transferring the agricultural credit functions of RBI and refinance functions of the then Agricultural Refinance and Development Corporation (ARDC)	X		X	X	X
5.40	Support		Small Farmers Development Agency	1971-72							
5.41	Support	MoFPI	Human Resources and Institutions	2016-20		The objective of the scheme is that end product/outcome/findings of R&D work should benefit the food processing industry in terms of product and process development, efficient technologies, improved packaging, value addition etc. with commercial value along with standardization of various factors viz., additives, colouring agents, preservatives, pesticide residues, chemical contaminants, microbiological contaminants and naturally occurring toxic substances within permissible limits	X	X	X	X	X
5.42	Support	MSME	Credit Linked Capital Subsidy	2013		The programme covers Credit Linked Capital Subsidy and					X

A		B	C	D		E	F				
SN	Theme	Ministry / Department/ Agency	Name of the Policy/ Action/ Initiative	Period Active		Major Objectives/Description in Brief	Action Tracks that Fit with the 'Game Changers'				
				D1	D2		G1	G2	G3	G4	G5
				Launch Year	Year Ending		AT1	AT2	AT3	AT4	AT5
			and Technology Upgradation Scheme			Technology and Quality Upgradation Support to MSMEs (TEQUP); schemes of National Manufacturing Competitiveness Programme (six Schemes) viz. Lean Manufacturing Competitiveness Scheme, Design expenses for Manufacturing MSME Sector, Digital MSME, Support for Entrepreneurial & Managerial Development of MSMEs through Incubators, Building Awareness on Intellectual Property Rights for MSME					



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