

Proceedings of the National Webinar on Localization of Sustainable Development Goals and Role of Panchayats – SDG No. 2 – Zero Hunger on 23rd August 2021 as part of AZADI KA AMRIT MAHOTSAV

1. The National Webinar on '*Sustainable Development Goals and Role of Panchayats – SDG No.2 – Zero Hunger*' was organized by the Ministry of Panchayati Raj (MoPR) in the series of planned events in commemoration of India @75 – **Azadi Ka Amrit Mahotsav** held on 23.08.2021. The webinar was inaugurated by the Minister of Panchayati Raj and was graced by Ministers of State for Panchayati Raj and Rural Development. The Webinar was attended to/joined by Senior Officers of MoPR, Central Ministries/Departments of Agriculture & Co-operation, Food Processing Industries, Rural Development, Land Resources, Food and Public Distribution, Women and Child Development. Besides, the Officers of the Panchayati Raj Departments of the State Governments/ UT Administrations, faculty members of NIRD&PR /SIRD&PRs and representatives of the Panchayati Raj Institutions also were in attendance.
2. In addition to the inaugural session, there were four technical sessions covering four major topics having bearing on ending hunger which were addressed by the concerned Ministries/Departments, representatives of World Food Programme of United Nations and Office of Principal Scientific Adviser to the Government of India. The programme, including the inaugural session, was anchored by Economic Adviser, Dr. Bijaya Kumar Behera.
3. The webinar had about 500 connections of the webex link of Panchayats with elected representatives and other functionaries of the Panchayat Raj Institutions attending in groups in Panchayat Bhawnas besides the people connecting to the event through webcast link – <https://webcast.gov.in/mopr/>
4. Dr. Chandra Shekhar Kumar, Additional Secretary, Ministry of Panchayati Raj delivered the welcome address. While welcoming the dignitaries and other participants, he briefed about the objective of this Webinar and briefly explained the planning of technical sessions.
5. Shri Sunil Kumar, Secretary, Ministry of Panchayati Raj gave the opening remark on the occasion. While addressing, the Secretary, Ministry of Panchayati Raj mentioned about 17 Sustainable Development Goals (SDGs) as set out by the United Nations and their attainment by 2030, particularly the topic of webinar on SDG No.2 i.e. making world hunger free. He mentioned that in making the country hunger free, the role of Panchayats is very vital and unless the Panchayats takes the vow to ensure zero hunger, it will be a difficult

task to accomplish the target. He brought out that SDG No.2 has three broad aspects of making available minimum quantity of food for 2 square of meal to all inhabitants, food security in terms of production as well as through trade in bridging food deficit, if any and ensuring nutritional security. He emphasized that women and such other vulnerable segment of the population should be targeted on priority not only for enough food to fight against hunger but also ending chronic malnutrition among children and women. Referring to first technical session on Food Security and Food Production, he appreciated the case studies presented by the States of Mizoram, Madhya Pradesh and Odisha wherein they gave a brief account of sustainable agricultural practice, convergence of programmes etc. with the aim of providing locally available food with focus on female population and ending mal-nutrition with the involvement of Self Help Groups (SHGs). He also mentioned that RGSA scheme of the Ministry is designed to train the elected representatives on different aspects of Governance and addressing the issues of SDGs by means of effective planning, dialogue, formulation and convergence of Schemes and programmes etc.

6. He made a mention of Village Poverty Reduction Program (VPRP) and its inclusion in the Gram Panchayat Development Plan (GPDP), the campaign of which has been started jointly by Ministry of Panchayati Raj and Department of Rural Development from 15th August 2021 across the country. Through this, better results are likely to be obtained. He urged Panchayats to ensure that no one sleeps hungry in their territory. It is also the role of Panchayats to see that the public food distribution system works in a proper way locally.

7. The Minister of State for Panchayati Raj, Shri Kapil Moreshwar Patil said that the Panchayati Raj system has been implemented with the objective of strengthening the system of local government in the country, reaching the villages and decentralizing the power of the governance system. Through the 73rd Amendment of the Constitution, Panchayats have been empowered and they are the last but the most important point in the implementation of the schemes of the government in their jurisdiction.

8. He said that the solution of any problem lies in its root, global issues can be solved only at the grassroots level. We can easily achieve Sustainable Development Goals by their localisation. As far as the subject of achieving the goal of Zero Hunger is concerned, Panchayats have the most important role in India. It is the responsibility of the Panchayats to keep an eye on the successful implementation of all the welfare schemes of the Central and State Governments in their area. Panchayats should ensure that the weaker and poorer sections of the village get all the basic facilities and such families are engaged in economic activities. Panchayats should also ensure that the situation of starvation does not arise in the village due to any reason. By preparing the data of the weaker section of the village, the

work of conveying the welfare schemes of the government to them should be done at a fast pace.

9. Minister of State for Rural Development, Shri Faggan Singh Kulaste, also shared his thought emphasizing mostly on the role of women-led Self Help Groups in empowering the family in the Rural areas for income and livelihood that can end hunger. He said that the role of women can be most important in ending malnutrition and hunger. In Panchayati Raj Institutions also, 50 percent sisters have participation as public representatives. Important work is being done in this direction through Self Help Groups in the villages and this should be given greater momentum. Shri Kulaste said that some States have done better work in the direction of eradicating malnutrition, the best practices there should be brought in front of the panchayats of the whole country and the panchayats should also follow them.

10. In his inaugural address, Minister of Panchayati Raj, Shri Giriraj Singh, urged upon the elected representatives of the Panchayats and all stakeholders that this should not be treated and taken as a mere programme but each of the participants should take vow to contribute their mite in all possible way in the attainment of zero hunger as set out by the United Nations. He also drew the attention to various steps taken by the Government particularly since 2014 in increasing the crop production, making available subsidized food/free food supply to the poor, addressing malnutrition issues and many other welfare measures taken by the Government including Direct Financial Assistance. He called upon the Panchayats that under all circumstances and in all activities starting from the planning till the last mile delivery of services, transparency at any cost needs to be maintained to attain the SDGs including SDG 2 – Zero Hunger. He called upon the Panchayats to take full benefits of the training programmes arranged by the Ministry of Panchayati Raj towards their capacity building and he complimented the Ministry of Panchayati Raj for the effective implementation of RGSA Scheme. Besides, he touched upon various other aspects of the SDG Goal No.2 and actions taken by the Government in attainment of the same.

11. The Minister of Panchayati Raj said that under the leadership of Hon'ble Prime Minister Shri Narendra Modi, the Government is working continuously to reach the people standing at the last end of the society for overall development and public welfare, and in the last seven years it has shown positive results. Today, in order to achieve the Sustainable Development Goals set by the United Nations, more than 2.5 lakh panchayats of the country are fulfilling the role of global partner in rural areas with full responsibility. The role of Panchayats is very important to end hunger in the country and now we have to work faster in this direction.

12. Referring to 75th year of independence celebration of the Azadi Ka Amrit Mahotsav, he reminded that it was the duty of present generation to realize the dream of the freedom fighters who had sacrificed their lives to make our country independent. He congratulated the officials of the Ministry of Panchayati Raj for reflecting on a serious and timely topic like a hunger free world in the series of organizing the Azadi Ka Amrit Mahotsav.

13. He recognised the works done by the PRIs at their level for a hunger-free world under the Sustainable Development Goal. He said that Asia is the only land in the whole world where two-thirds of the world's people live and it is a bitter truth that 51 crore people in Asia are undernourished. Accepting this challenge, we have to work at the grassroots level through Panchayati Raj Institutions along with the Central and State Governments for more tangible results in this respect.

14. Applauding the leadership of the Prime Minister, he added that in the last seven years, India has made rapid progress in many areas. Today India is free from power crisis. While emphasizing on the productive employment, he said that work is being done on connecting self-help groups with livelihood and employment in MGNREGA as well as productivity. There are 31.65 lakh elected representatives in more than 2.55 lakh panchayats of the country, almost half of which are women. Along with these institutions, it is the responsibility of the Central and State Governments to establish Swaraj in every village of the country through a strong, responsible and transparent Panchayati Raj system. Under the leadership of Prime Minister Shri Narendra Modi, work has been done to make Panchayats more financially empowered in the last seven years. Under the grant of the Fourteenth Finance Commission, more than three times funds have been provided compared to that provided by the Thirteenth Finance Commission. At the same time, in the 15th Finance Commission, an amount of about 2 lakh 80 thousand crore rupees is reaching the Panchayats. Therefore, it is our responsibility to work with all our might to achieve the goals of the United Nation.

15. He underscored the need and necessity of transparency for attainment of the SDGs and SDG No.2 in particular. All initiatives have been taken to bring the Panchayats under the transparent regime as they have come on the e-gram Swaraj portal. Online payment is done through this medium. He urged that the Ministry of Panchayati Raj and the Ministry of Rural Development should work together to bring all the schemes of the government on the ground. He said that in the goals set by the United Nations, bringing hunger, eradicating poverty and food security are all three intertwined. Panchayati Raj institutions are playing an important role in achieving these goals. Under the leadership of Prime Minister Shri Narendra Modi, 80 crore people of the country are being provided free ration under the Pradhan Mantri Garib Kalyan Anna Yojana during the Corona period, this work will

continue till November. Along with this, the beneficiary can get ration anywhere in the country under the One Nation One Ration Card scheme. During the crisis of COVID-19, financial assistance was provided to the disabled, widows, old people and women holding Jan Dhan accounts, so that no one faces starvation.

16. The four technical sessions discussed and deliberated on the critical issues / subjects like sufficiency of food production & food security, sustainable agricultural production, public distribution, minimization of food production and processing losses, nutritional security and leveraging of technological solutions having bearing on attainment of Zero Hunger by 2030 besides the discussions on World vis-à-vis India's position on fighting hunger. The representative of World Food Programme, UNDP, representatives of the Central Ministries / Departments like Department of Agriculture & Farmers Welfare, Department of Food & Public Distribution, Ministry of Food Processing Industries and Office of Principal Scientific Adviser presented the earmarked topics as the States / UTs and Panchayati Raj Institutions / Rural Local Bodies participated in the discussion. The technical Session wise-topics for discussions were as follows:

Session	Topic/Speaker
Technical Session-I	
'Sufficiency of Food Production & Food Security' Moderator: Smt. Rekha Yadav, Joint Secretary, MoPR	'Bio-fortification: A sustainable way to alleviate malnutrition' by Dr. D. K. Yadav, ADG, ICAR
	'Sufficiency of Food Production & Food Security: Critical Role of Panchayats' by Shri Bipul Kumar Srivastava, Deputy Commissioner, Ministry of Agriculture & Farmers' Welfare
	Experience of State of Mizoram-Presentation shared by Dr. MS Dawngliani & Dr. Khawlsiamthanga Khawlihring (Sr. Faculty) of SIRD&PR, Mizoram
	A Convergent Approach in Addressing Nutritional Security: The Kodo-Kutki Way, lessons from Tejaswini, Madhya Pradesh presented by Smt. Kalpana Srivastava, Principal Secretary, Department of Horticulture and Food Processing, Government of Madhya Pradesh.
	Experience of State of Odisha on Nutrition Project (Mo Upakari Bagicha) shared by Dr. Saroj Kumar Dash, Joint Director, SIRD&PR, Odisha.
Technical Session-II	
'Cross Country/Region Comparison on Fighting Hunger'	India's Position in Fighting Hunger vis-à-vis other developing and underdeveloped countries by Mr. Bishow Parajuli, Country Director, World Food Programme of United Nations
	Science, Technology and Innovation for Sustainable Development Goals' by Dr. Sachin Chaturvedi, O/o Principal

Moderator: Shri (Dr.) C. S. Kumar, Additional Secretary, MoPR	Scientific Adviser to GoI.
	Interventions of National Institute of Rural Development and Panchayati Raj towards No Poverty and Zero Hunger' by Dr. Anjan Kumar Bhanja, NIRD&PR, Hyderabad
	Experience of State of Kerala shared by Ms. Sukanya K. U., Kerala Institute of Local Administration (KILA), Thrissur.
Technical Session-III	
'Public Distribution and Zero Hunger' Moderator: Shri (Dr.) Yogesh Suri, Senior Adviser, NITI Aayog	National Food Security Act and Goal of Zero Hunger by Ms. Manisha Sensarma, Economic Adviser, Department of Food & Public Distribution, Government of India
	Experience of State of Rajasthan shared by Smt. Navneet Sandhu, Sarpanch, Gram Panchayat Srinagar, Hanumangarh
	Experience of State of Chhattisgarh shared by Shri Himanshu Kumar Sahu, Asstt. Director, Panchayat Directorate, Government of Chhattisgarh
	Experience of State of Uttar Pradesh shared by Department of Food & Supply, Government of Uttar Pradesh
Technical Session-IV	
'Minimization of Food Losses' Moderator: Shri (Dr.) Anandharamakrishnan, Director, IIFPT, Ministry of Food Processing Industries (MoFPI)	Minimisation of Food Production and Processing Losses – An indispensable means towards Zero Hunger by Dr. R. Vidhyalakshmi, Professor, IIFPT, MoFPI
	Experience of State of Andhra Pradesh shared by Shri G. Subash, Project Manager, Andhra Pradesh Food Processing Society.
	Experience of State of Karnataka shared by Smt. B. Fouzia Taranum, CEO, Zilla Panchayat Koppal, Karnataka
	Experience of State of Madhya Pradesh on Role of Panchayats in Minimization of Food Production and Processing Loss shared by Shri Raman Wadhwa, Deputy Commissioner, SRLM, Government of Madhya Pradesh

17. The first technical session discussed sufficiency in food production and food security. Setting the tone and context of session, Smt. Rekha Yadav, Joint Secretary, Ministry of Panchayati Raj, made a brief mention of all 17 SDGs set by United Nations and their attainment by 2030 as she mentioned the basic but stunning hunger statistics and challenges before the country like India that face in accomplishing the target. She put together in nutshell the initiatives and steps taken by the Government like targeted public food distribution programme, mid-day meal programme in schools, Integrated Child Development Programmes operated through the Anganwadis and National Food Security Act etc. run all across the country to address the grave threat of hunger and mal-nutrition where the women and children as the most vulnerable. Keeping all these factors in mind she assigned due weightage to the session for serious discussion and invited the speakers.

18. Dr. D. K. Yadav of ICAR made an exhaustive presentation on Bio-fortification: A Sustainable way to Alleviate Malnutrition. He focused on areas such as comparative status of malnutrition highlighting Global and Indian scenario, change in food production scenario in India, loss in GDP due to malnutrition, bio-fortification and sustainable way to eliminate malnutrition, India's Initiatives on bio-fortification, bio-fortified varieties released by ICAR and dedicated to the nation, schemes of the Government of India to popularize bio-fortified varieties and way forward. He underlined that Panchayats can play an important role in popularizing the varieties.

19. Shri Bipul Kumar Srivastava, Deputy Commissioner, Department of Agriculture and Farmers Welfare dwelt on Sufficiency of Food Production & Food Security and Role of Panchayat. His presentation broadly covered trend in production of food grains in India since 1960 and targets for 2021-22, per capita net availability of food grains (gms/day) in India, trend in Export & Import of food grains. He also highlighted the targeted crop for production beyond Rice & Wheat, which are Pulses, Nutri-cereals & Oilseeds vital for food & nutritional security and holistic plan for enhancement of the production of Pulses & Oilseeds.

20. The State of Mizoram shared its experience in achieving 'Zero Hunger' through agriculture led activities in three Village Councils (Leng, Ngopa and Sailam). Dr. MS Dawngliani and Dr. Khawlsiamthanga Khawlihring, faculties of State Institute of Rural Development & Panchayati Raj Mizoram, Aizawl presented the case studies.

21. Smt. Kalpana Srivastava, Principal Secretary, Department of Horticulture and Food Processing, Government of Madhya Pradesh presented a case study of tribal dominated Dindori district where two nutritional crops (Kodo and Kutki) once grown predominately was discontinued by replacing rice. This led to resurgence of malnutrition and the traditional crop cultivation was restored with help of IFAD supported Tejaswini project and this has produced encouraging results in the fight against malnutrition.

22. Dr. Saroj Kumar Das, Joint Director, State Institute of Rural Development & Panchayati Raj, Odisha spoke on 'Mo Upakari Bagicha'- My Useful Garden, an initiative/project towards achieving Zero Hunger & Zero Malnutrition by Panchayati Raj & Drinking Water Department and Department of Mission Shakti, Government of Odisha. The goal of the project was to improve Nutrition knowledge and practices of women, promote dietary diversity and strengthen capacities of community cadres and functionaries in SRLM, Odisha on nutrition sensitive intervention. The target groups of the project were children below five years, pregnant women and lactating mothers and adolescent girls. The project is being implemented with the help of Azim Premji Foundation and Resource NGOs (Harsha Trust, Living Farms and Pradan).

23. Smt. Rekha Yadav, chairing the session complimented the speakers for their factual and action oriented presentations as she drew the attention of the PRIs to take a lead role in ensuring sustainable agricultural development and popularise the nutritious bio-fortifiable varieties in their localities for which she advocated awareness campaign. The detailed record of discussion of the session is at **Annexure**.

24. The second technical session focused on the comparative picture of fight against hunger across the world and among different States of India. Dr. Chandra Shekhar Kumar, Additional Secretary, Ministry of Panchayati Raj chairing the session referred to the focal point of discussion just concluded first technical session where the food production and availability trend was discussed. He recapitulated the audience on our achievement from food deficit status to food surplus one through intervention of green revolution. However, the fact remains that despite the surplus, there remains disparity in fighting hunger like economic ones across the States and across the World for similar reasons. In the localisation of SDG context, he underlined that the Panchayats have a greater role to play for which their capacity building has as much to do as scientific temper. Accordingly, he gave due importance to the session that can sensitize the grass root leaders and invited the speakers.

25. Mr. Bishow Parajuli of World Food Programme (WFP), United Nations, while making a presentations brought out the points on Government of India's Efforts on Safety Nets, India food grain situation including its trend since 1960 and impact of Climate Change on India's food grain, share of population that is under-nourished, share of children who are stunted, impact of COVID-19 Pandemic on Livelihoods. After analysing various facets of hunger, he outlined the role that can be played by the Panchayats in addressing food and nutrition issues which are as follows:

- Map food insecure and nutritionally vulnerable population based on age, reproduction, occupation, area and assess health needs for each category.
- Support in linking the community to the different schemes on food and nutrition security
- Monitor and ensure high quality and appropriate health and nutrition service delivery through the various government institutions at the village level. Supervise care providers – ASHA, ANM & AWW.
- Set the local nutrition goals and targets for the Gram Panchayat in collaboration with the relevant departments. Based on goals and targets, develop specific plans for each category.
- Ensure effective functioning of the Village Health Sanitation and Nutrition Committee (VHSNC)

- Organize awareness campaigns on nutrition- causes and solutions.
- Promote Climate Suitable Crops, help diversify livelihood opportunities.
- Help prevent and Provide adequate responses to natural disasters for the needy.

26. The Office of Principal Scientific Adviser to the Government of India made presentation on role of Science, Technology and Innovation (STI) for Sustainable Development Goals (SDGs) focusing on National Initiative on STI for SDGs Roadmaps, Technology Facilitation Mechanism (TFM) and Global Pilot Programme on STI for SDGs Roadmaps, STI for SDGs Roadmaps and Policy Template for India, STI for SDGs Roadmaps for Other Pilot Countries, Role of STI in India's Food System, STI for SDGs Roadmaps with Priorities on Sustainable & Resilient Agriculture and Initiatives of PSA office towards SDG2.

27. National Institute of Rural Development and Panchayati Raj (NIRD&PR), in their brief presentation, focused on their interventions in capacity building and training of the PRIs towards 'No Poverty and Zero Hunger' goal which included the following:

- ❖ Enabling multiple channels of capacity building / hand holding / igniting / mentoring
- ❖ Certifying / accrediting trainers / resource persons
- ❖ Promoting for creation of Islands of Success
- ❖ Interstate/ intra state mentors to infuse enthusiasm
- ❖ Documentation of Success Stories
- ❖ e-Enablement of Panchayats
- ❖ Qualitative and holistic formulation of comprehensive GPDP, BDP & DDP
- ❖ Institutional strengthening PRIs
- ❖ Harnessing social capital- PRI- SHGs convergence for GPDP, BDP & DDP
- ❖ Evidence based planning using Mission Antyodaya survey data, SECC data and GIS maps.
- ❖ Integrating the issues of Gender, Children, Marginalized Sections, Elderly and PwD in GPDP, BDP & DDP
- ❖ Integrating the issues of Education, Health and Nutrition in GPDP, BDP & DDP
- ❖ Integrating the issues of Economic development in GPDP, BDP & DDP w.r.t Agriculture & Allied Activities / Livelihoods/ Skill Development
- ❖ Mainstreaming of SDGs into GPDP, BDP & DDP by identifying the priority areas of interventions

28. The Kerala Institute for Local Administration (KILA) shared their State experience in fighting hunger and malnutrition as the speaker dwelt on micro plans for the extremely

poor and vulnerable, services at the doorstep, specific target to achieve Hb 12 for everyone and actions under Subhiksha Keralam that were as under: -

- To attain self-reliance in food production, enhancing the incomes of farmers, employment generation, attracting youth and repatriates to agriculture, strengthening the animal resources and fisheries sectors, and promoting organic farming for safe to eat food
- Joint action of various departments under the leadership of Panchayats
- Panchayats to provide credit, marketing, and irrigation support. Also community mobilisation.
- Self-sufficiency to be achieved through large scale production of paddy, fruits, vegetables, grains and legumes
- Fallow land cultivation, homestead cultivation, crop improvement activities for the existing cultivation, improved market facilities, interventions in the post-harvest management and long-term interventions
- Kudumbashree, Joint Liability Groups and other groups in action

29. Dr. Chandra Shekhar Kumar, chairing the session complimented the speakers for their factual and action oriented presentations as he drew the attention of the PRIs to take a proactive role in maintaining statistics of vulnerable sections like women and children for targeted action to see a hunger-free panchayat that can eventually lead to hunger-free country. The detailed record of discussion is at **Annexure**.

30. The third technical session deliberated on the Food Security Act and Goal of Zero hunger. The session was chaired by Dr. Yogesh Suri, Senior Adviser, NITI Aayog. Dr. Suri before inviting the speaker, while setting the context, mentioned the pioneering work the Central Government has been doing in enacting NFSA and implementing the world's largest public food distribution programmes. He brought out various reform initiatives and concrete action for more effective implementation of the NFSA, the latest being the One-Nation-One-Ration card initiative. He mentioned that distribution of food is as important as its production and NFSA is a direct intervention in fight against hunger and mal-nutrition for the people with low purchasing power. The beneficiary number has been increasing and has crossed the target of 80 crore as also the efficiency of distribution too. Attaching due importance to the session he invited the Speakers to present their detailed case.

31. The Department of Food and Public Distribution represented by Ms. Manisha Sensharma, Economic Adviser presented a detailed and upto date status of National Food Security Act and Public Distribution system in India in the third technical session in which she covered Right to Food in Indian Constitution, National Food Security Act, 2013, reforms

in Targeted Public Distribution System like End-to-End Computerization of TPDS Operations, Reforms in One Nation One Ration Card (ONORC), Self Sufficiency in Foodgrains to Support the Public Distribution System and initiatives during COVID-19. She dwelt on current role of Panchayats under NFSA and outlined the proposed role of Panchayats under NFSA which are as follows:

- Social Audit of Beneficiary database (handle the issue of wrongful inclusion and exclusion)
 - Issue of wrongful inclusion and exclusion can be handled through village panchayats.
 - Beneficiary database can be displayed in public and panchayat may decide on wrongful inclusion and exclusion
- Social Audit of Fair Price Shops
 - Social audit of FPSs may be undertaken by the village panchayats. The audit can include quality and quantity checks, ensuring beneficiaries are getting adequate quality and quantity.
- Exception handling
 - Biometric Authentication Failure cases can be handled through Panchayats, and foodgrains may be disbursed.
 - Panchayats may act as approver for persons without Identity/Address Proof
- Food Security Allowance
 - Disbursement of Food Security Allowance to persons who could not get foodgrains
- Channelize grievances of beneficiaries to district level offices and awareness generation
 - Beneficiary grievances can be channelized through the village panchayats
- Awareness generation on ONORC, GRM, Inclusion and Exclusion parameters

32. Smt. Navneet Sandhu, Sarpanch, Gram Panchayat Srinagar, Hanumangarh, Rajasthan gave a brief account of initiatives taken by the Gram Panchayats for PDS and agricultural development, the prominent of which portability of ration card and involvement of SHGs food processing and fortification of foods for pregnant women.

33. Shri Himanshu Kumar Sahu, Assistant Director, Panchayati Raj Directorate shared the experience of the State of Chhattisgarh on implementation of National Food Security Act. He mentioned that Chhattisgarh is the first state in India that enacted the Food and Nutrition Security Act, 2012 to provide food security in a legal form. He brought out that in the rural areas of Chhattisgarh, distribution of food grain is done through about 11220 fair price shops, which are operated by women self-help groups, cooperative societies and

village panchayats. The process of distribution of PDS ration material has been made online from the state headquarters to almost tehsil level of the State. Digitization of PDS Fair Price Shops is being done through Android based tablets. Under Universal PDS, at least 35 kg rice is being provided to every family in the state. In the remote areas of the state where transportation is blocked during the rainy season, arrangements are made for advance storage before the rainy season. He further informed that to overcome anemia and other nutritional deficiencies, distribution of fortified rice containing nutrients (Iron, Vitamin B12, Folic Acid) has been started from Kondagaon district on 1st November 2020. For distribution of food grain through Aadhaar Number Verification, seeding of Aadhaar numbers of the head and members of the family is being done in the ration cards. Under the Public Service Guarantee Act, 2011, there is a provision to provide service within 30 days on the application for making a new ration card or correction in the Gram Panchayat office. Real time monitoring and tracking of ration material distribution system can be done by registering on Jan Bhagidari website through SMS and email. This has increased transparency and accountability in PDS. Toll free helpline number has been issued to get information or make complaint related to PDS. Special efforts made by the States to tackle the COVID-19 pandemic disruptions were also highlighted by him.

34. Shri Anil Kumar Dubey, Additional Commissioner, Department of Food & Civil Supplies, Govt. of Uttar Pradesh through power point presentations shared their experiences on implementation of food security act and role of Panchayats for its effective implementation at ground level besides the innovative initiatives taken by the at the State level. He dwelt on National Food Security Act-2013 in U.P, installation of e-pos machine and distribution of food grains in fair price shops of the state, One Nation One Ration Card (Ration Card Portability), system of providing food grains to the disabled at home, distribution of free food grains under NFSA by the state government during the corona epidemic, distribution of free food grains under Pradhan Mantri Garib Kalyan Anna Yojana, distribution of fortified rice in Chandauli district and Sewapuri development block of Varanasi district and the like.

35. Dr. Suri, chairing the session complimented the speakers for their factual and action oriented presentations as he drew the attention of the PRIs to the new set of proposed role suggested by Department of Food & Public Distribution that they can proactively play for effective implementation NFSA and contribute their mite towards fighting hunger. The detailed record of discussion is at **Annexure**.

36. The penultimate session devoted to Food Losses was chaired by Dr. Anandhramakrishnan, Director, Indian Institute of Food Processing Technology, Ministry of Food Processing Industries. An innovator and pioneer himself in the food science and technology field and

promoter of circular eco-system i.e. waste-to-wealth framework, Dr. Anandhramakrishnan put forth the astonishing food loss statistics in the world amidst abysmal hunger scenario. He brought out that 1.6 billion tonnes of food is lost/wasted annually in the globe, which is 1/3 of the global food production. India is not an exception to it though the nature of losses is a bit different. Multiple intervention by multiple agencies is the need of the hour to address the twin issues of food loss and end global hunger. He, therefore, assigned due importance to the session and invited the speakers to present their cases to sensitize the various stake holders.

37. Dr. R. Vidyalakshmi, Professor, Indian Institute of Food Processing Technology, Ministry of Food Processing Industries, made an exhaustive, informative and updated presentation on extent of food losses, stages of food losses, causes of food losses and also the steps/ measures taken the point view of Government intervention, technological intervention etc. to reduce the losses. It was brought out that annually 1.3 billion tonnes of food is lost/wasted which is one third of the total food production as 795 million people will go hungry. She informed that in the whole process, the production losses is at 24%, post-harvest losses at 24%, processing losses 4%, distribution losses 12% and at the consumption stage the losses is 35%. She also shared the vital information on crop/produce-wise losses which include 30% losses in cereals, 20% in dairy, 35% in fish and 45% fruits and vegetables. She also brought out that continuous increase in production coupled with lack of adequate and efficient processing and preservation infrastructure as the principal reasons of food losses at different stages. Besides, inadequate market systems, lack of proper coordination between the food processors and farmers, disaggregation of production by the small and marginal farmers are some of the other reasons that are responsible for losses in food. Towards the efforts for minimization of food losses, she brought out the intervention by the Government policies, technology innovations, improvement in infrastructure and food quality standards.

38. Shri D. Subash, Project Manager, Andhra Pradesh Food Processing Society (APFPS) sharing the food processing experiences in the State of Andhra Pradesh informed that Andhra Pradesh Food processing sector stands first in the country in terms of number of registered food processing units with 14.75% share in the country as it stands in the 6th place in contributing gross value addition of Rs.7378cr and providing employment to about 1.5 lakh youth. He outlined the schemes and progarmmes and other initiatives of the State Government to encourage the food processing activities by the micro and nano food processors both by the individuals and group interventions.

39. Smt. B Fouzia Taranum, Chief Executive Officer, Zilla Panchayat Koppal, Karnataka while sharing experiences from the State of Karnataka in food processing sector and assistance to the small food processors dwelt on the issues like infrastructure created in Panchayats to involve

food processing & preservation activities, incentives to small food processors, formation and promotion of SHGs in food processing and various other initiatives.

40. Shri Raman Wadhwa, Deputy Commissioner, State Rural Livelihood Mission, Govt. of Madhya Pradesh, gave a brief account of the initiatives and action taken towards localization of the Sustainable Development Goals (SDGs) that, inter alia, includes **empowering Gram Panchayats for Planning, Service delivery and Monitoring.**

41. Dr. Anandhramakrishnan, chairing the session complimented the speakers for their factual and action oriented presentations as he drew the attention of the PRIs to motivate the local entrepreneurs to undertake small and micro food processing/preservation projects for which government assistance is available. Even the PRIs can avail such assistance and undertake the projects which can help the PRIs to generate revenue for the Panchayat and employment for the local people on profitable operations of the projects. The Panchayats can play a vital role for creating common food processing infrastructure by synergising and converging activities available under various schemes and programmes with involvement of group-based agents like SHGs and Cooperatives. The detailed record of discussion is at **Annexure.**

42. In his concluding remarks, Secretary, Ministry of Panchayati Raj, Shri Sunil Kumar, while thanking the large participation by all stakeholders, the representatives of the PRIs in particular, called upon them and also other sector enablers to convey the message of Sustainable Development Goals particularly Goal No.2 in the language that larger population understand and contribute towards its attainment. Such a sensitive issues need to be discussed threadbare at the Gram- Sabhas focusing more on the need of all the vulnerable sections particularly the women and children. He called upon the State Functionaries and administrative machineries to supplement and compliment the efforts of the Government in building the capacity of the Elected Representatives to enable them plan and execute Schemes and Programmes in convergence with other Schemes and Programmes in a transparent and accountable manner for attainment of different SDGs, particularly, the Goal No.2 under discussion. He called upon the elected representatives that the PRIs to mobilize their own resources and make themselves self-sufficient and sustainable in this regard. He cited the example of development infrastructure and installation of Solar Energy like other Renewable Energy to generate power the Panchayat level and selling the surplus to the power grid to earn revenue which can fund various developmental activities of the Panchayats and help income generation that can, inter alia, be utilised for removal of hunger among inhabitants of the Panchayats. He called upon the Panchayats for effective implementation of the National Food Security Act to ensure nobody lives without food. He called upon all participants to take positive stories that was discussed during the Webinar concerning various States which can be

replicated and further improvised for addressing the issues like sustainable agricultural production, efficient public distribution, food processing with involvement of groups like Self Help Groups, co-operatives, address nutrition deficiency issues and above all devise and scrupulously monitor the progresses thereof.

Technical Session - I

The Technical Session No. I titled, “Sufficiency of Food Production & Food Security” – A means towards achieving Sustainable Development Goal (SDG) No.2 ‘Zero Hunger’ was chaired by Smt. Rekha Yadav, Joint Secretary, Ministry of Panchayati Raj, Government of India. There were four presentations on the subject in this session. First presentation was made by Dr. D. K. Yadav, ADG, Indian Council of Agricultural Research on “Bio-fortification: A Sustainable way to Alleviate Malnutrition”, which was followed by a presentation made by Shri Bipul Kumar Srivastava, Deputy Commissioner, Ministry of Agriculture & farmers Welfare on “Sufficiency of Food Production & Food Security: Critical Role of Panchayat”. These presentations were followed by experience shared by the States of Mizoram, Madhya Pradesh and Odisha on action taken on food production and food security.

Discussion on Bio-fortification: A Sustainable way to Alleviate Malnutrition

1.1 Dr. D. K. Yadav made an exhaustive presentation on Bio-fortification: A Sustainable way to Alleviate Malnutrition. The presentation covers broad areas such as comparative status of malnutrition highlighting Global and Indian scenario, change in food production scenario in India, loss in GDP due to malnutrition, bio-fortification and sustainable way to eliminate malnutrition, India’s Initiatives on bio-fortification, bio-fortified varieties released by ICAR and dedicated to the nation, schemes of the Government of India to popularize bio-fortified varieties and way forward.

1.2. It was brought out that malnutrition leads to morbidity, disability, stunted mental and physical growth, and reduced national socio-economic development. Dr. Yadav highlighted that Globally around two billion people suffer from micronutrient deficiency or ‘hidden hunger’, 820 million people are undernourished, 149 million (21.9%) children (<5 years) are stunted, 49.5 million (7.3%) children (<5 years) possess wasting, nearly 45% of deaths among children (<5 years) are linked to malnutrition, South Asian region is affected the most by malnutrition with 31.7% and 14.3% of the children (<5 years) being stunted and wasted, respectively. Malnutrition contributes to loss of 11% GDP in Asia and Africa.

1.3. He further brought out that in India around 21.9% of population lives in extreme poverty, 15.2% of people are undernourished, 38.4% of the children (<5 years) are stunted, 21.0% are wasted and 35.7% of the children are under-weight, stunting varies greatly (12.4-65.1%) across districts, with 239 of 640 districts having stunting levels above 40%. Around 58.4% of the children (6-59 months), 53% of the adult women and 22.7% of adult men are affected due to anaemia, 70% of children (<5 years) are estimated to be iron deficient and 38% of children (<5 years) are estimated to be deficient in zinc. It was stated that India loses over US\$12 billion in GDP per year to vitamin and mineral deficiencies.

1.4. Dr. Yadav shared that the food grains production has increased more than 6 times from 50.83 million tonnes in 1950-51 to 304.55 million tonnes in 2020-21 (III Advance Estimates of 2020-21). The production of other nutritious food items has also increased substantially over the period such as milk production increased from 17 million tonnes in 1950-51 to 198.80 million tonnes in 2019-20, fish from 0.75 million tonnes in 1950-51 to 14.16 million

tonnes in 2019-20, Egg production from 1.8 billion in 1985-86 to 114.38 billion in 2019-20. It was mentioned that the efforts are being made to further enhance the production and productivity of nutritional food items keeping in view to remove malnutrition in the country. Considering bio-fortification as a sustainable way to eliminate malnutrition various initiatives have been taken by ICAR and around 71 bio-fortified varieties have been launched to enhance the nutritional quality of food crops. As on today more than 4.5 m ha area is under bio-fortified varieties of different crops including wheat (4.0 m ha), rice (0.75 lakh ha), pearl millet (2.0 lakh ha), lentil (0.25 lakh ha) and mustard (3.0 lakh ha).

1.5. Towards the efforts to alleviate malnutrition, he brought out the intervention by the Government policies, technology innovations, improvement in infrastructure etc. The initiatives taken by the Government of India under the Programme of Nutri-sensitive Agricultural Resources and Innovation (NARI) were brought was highlighted. It was started that Nutri-SMART village (NSV) for meeting nutrient requirement for making nutrient sufficient and healthy citizen is being promoted as nutritional security concept to reduce by minor adjustment in the dietary plan. NSV as unique architect for nutrition-sensitive agriculture and work as “minilab” for showcasing precise nutritional security using available resources, nutritional literacy, motivation and attitudinal change being implemented in 45 villages in Madhya Pradesh and Chhattisgarh by KVKs. As a way forward to alleviate malnutrition, he suggested for promotion of high yield bio-fortified crops, quality seed production, integrated farming, change in cropping system using technology, convergence of the schemes, marketing support and awareness generation etc.

Discussion on Sufficiency of Food Production & Food Security: Critical Role of Panchayat

1.6. A detailed presentation was made by Shri Bipul Kumar Srivastava, Deputy Commissioner, Department of Agriculture and Farmers Welfare on Sufficiency of Food Production & Food Security: Critical Role of Panchayat. His presentation broadly covers trend in production of food grains in India since 1960 and targets for 2021-22, per capita net availability of food grains (gms/day) in India, trend in Export & Import of food grains. He also highlighted the targeted crop for production beyond Rice & Wheat, which are Pulses, Nutri-cereals & Oilseeds vital for food & nutritional security and holistic plan for enhancement of the production of Pulses & Oilseeds.

1.7 He stated that after Hon'ble Prime Minister's call for increasing self-sufficiency in pulses and oilseeds in 2016, three pronged strategies have been adopted to increase the area under cultivation of oilseeds & pulses, increase productivity using high yielding varieties along with other measures to improve productivity and to provide market support through increased MSP and procurement. He further highlighted the various reason of not achieving available potential in this direction. Some of these are continued high imports and higher production led to oversupply thereby depressing prices, comparatively lower MSP acted as a disincentive thereby shifting farmers to other crops and crop diversification could not take place due to competing cereal crops and sugarcane.

1.8 Towards Security, he stated that Government of India launched National Food & Nutrition Security Mission (NFNSM) in 2007 with the objectives to increase production through area expansion & productivity enhancement, restoring Soil fertility and productivity

at the individual farm level, enhancing farm level economy to restore confidence amongst the farmers and enhancing post-harvest value addition at farm gate for better price realization to farmers through efficient market linkages.

1.9 He brought forward the role of Panchayats in Sufficiency of Food Production & Food Security through development of grade & standards of food grains products, packaging & labeling of the products, trainings & capacity building activities, enhancing demand and awareness, fairs, Exhibitions, fests and campaigns, seminar/symposium/workshop at district / state / national level and value chain integration. He also brought forward the role of Panchayats for entrepreneurship/ startup/ collective development through development of FPOs, license of entrepreneurs, processors, startups, tourism, license of service providers for supply of the products in the country and awareness campaign for availability of millet products.

Experiences Shared by Mizoram

2.1 The presentation on experience sharing to achieve 'Zero Hunger' through different initiatives by three Village Councils was shared by Dr. MS Dawngliani and Dr. Khawlsiamthanga Khawlihring, faculties of State Institute of Rural Development & Panchayati Raj Mizoram, Aizawl. Initiatives taken by three Village Councils (Leng, Ngopa and Sailam) in the State of Mizoram towards achieving Zero Hunger are as under:

Leng

1. Looming for sustainable income on a society-based approach such as-
 - (i) Mithun Cooperative Society established.
 - (ii) Farmers' Society for seedless orange cultivation.
 - (iii) Green House Farming clusters developed & being extended; open air cultivation also promoted with Horticulture Department.
 - (iv) Bee keeping Cooperative Society established.
2. Drive for production of piglets in convergence with MGNREGS.
3. Contour trench, Check dams & Planting of trees.
4. Preserve forest as community approach, 4000 trees planted and forest reserve is about 14 ha.
5. Green-House & Open air tomatoes, a recent initiative.

Ngopa

1. Promotion of awareness on agriculture.
2. Tools and seeds provided for permanent cultivation.
3. Land provided to landless families.
4. Agriculture link roads constructed, 10 families assisted for water-melon cultivation.
5. Irrigation channel for WRC were constructed.
6. Various Soil & Water conservation works carried out: viz. farm tanks, terrace and manure pit were done for permanent cultivators.
7. 470 farmers benefitted.
8. Total earning from farming was more than 70 lakh.
9. Forest reserve- 2035 ha & planted 1560 trees.

Sailam

1. Village Council's measures for self-sufficiency is benefitted by 55 farmers.
2. Conservation of Forest & Water.
3. 2500 trees planted in 20 hectares.
4. WRC was extended with the cooperation of Irrigation and Agriculture departments.
5. Paddy-cum- Fish culture and double cropping was practiced.
6. Animal husbandry is being promoted in collaboration with Veterinary department & MGNREGS.
7. Solar water pump installed: Every household is having water connection with 24-hour supply at minimal cost.
8. Orange Plantation: A source of livelihood for many.

Experiences Shared by Madhya Pradesh

3.1 A convergent approach in addressing Nutritional Security: The Kodo-Kutki Way a Lessons from Tejaswini, Madhya Pradesh was presented by Smt. Kalpana Srivastava, Principal Secretary, Department of Horticulture and Food Processing, Government of Madhya Pradesh.

3.2 She informed that Dindori is a Tribal dominant district in which Baiga is predominant tribe. Two crops (Kodo and Kutki) grown traditionally in this district which have high nutritional value. But in last three decades people shift to paddy cultivation, leading to malnutrition. IFAD supported Tejaswini project was being implemented by Mahila Vitta Vikas Nigam through nine women federations and 2462 Women SHGs comprising 29000 families (From 2008-Till Now) in Dindori to encourage farmers to go back to the production of Kodo-Kutki to address the malnutrition in the area. She further apprised that this initiative was called as the Kodo-Kutki Way: Journey from Production to Nutritional Security. The activity initiated with 1497 women farmers only, now 16289 women farmers are associated with the initiative. In this initiative grass root institution building (Enhancing women's capacities on agri-input/processing and marketing) was carried out and other supports were provided with the convergence of the scheme of line departments (Agriculture, Rural Development, Panchayat, Skill Development etc.). Other supports were also provided such as seed multiplication & distribution, inclusion of technology, skill enhancement, processing & Value Addition and marketing linkages etc. Food processing machines were installed with the help of UNDP.

3.3 The outcomes of the project are as under:

- Started with 1 Federation, constituting 1497 women farmers cultivating 745 acres in 2013-14, expanded to all 9 Federations in Dindori, comprising 16289 women farmers with an outreach of 21537 acres.
- Providing Nutritious Biscuits and kodobars, Take Home Ration to 38043 children in 1913 Anganwadi centres.
- Kodo recipes published to promote sales.
- Processed products such as Kodo Kheer, Idli, Khurma etc. were developed.
- Replicated by Department of Agriculture in Mandla.
- Through UNDP intervention Nutritious Biscuit Training by Institute of Hotel Management is going to be imparted to SHG members.
- Turnover of Rs.90 Lakhs/annum of each federation.

3.4 The lessons learnt from the project is under:

- Profitability for women can go hand in hand with better nutrition for children and revival of a climate resilient staple crop
- Interdepartmental convergence the key to success
- Traditional Nutrition for Zero Hunger
- Empowerment of women a key strategy for nutritional security
- Economic Empowerment translates into better nutrition
- Grassroot participation and ownership ensures sustainability of initiative

Experiences Shared by Odisha

4.1 A presentation was made by Dr. Saroj Kumar Dash, Joint Director, State Institute of Rural Development & Panchayati Raj, Odisha on Mo Upakari Bagicha, an initiative/project towards achieving Zero Hunger & Zero Malnutrition by Panchayati Raj & Drinking Water Department and Department of Mission Shakti, Government of Odisha. The goal of the project was to improve Nutrition knowledge and practices of women, promote dietary diversity and strengthen capacities of community cadres and functionaries in SRLM, Odisha on nutrition sensitive intervention. The target groups of the project were children below five years, pregnant women and lactating mothers and adolescent girls. The project is being implemented with the help of Azim Premji Foundation and Resource NGOs (Harsha Trust, Living Farms and Pradan). The key intervention area of the project was:

- Participatory Learning and Action(PLA-LANN): Community mobilization and behaviour change initiative around Health & Nutrition with Women Self Help Groups (WSHGs).
- Nutri-garden: Strengthening dietary diversity at household level for both landless and families owning land by promoting cultivation of different seasonal vegetables and fruits.
- Livestock Promotion: Backyard poultry and goat rearing at household level ensuring consumption of protein-rich foods.

4.2 It was informed that the project was take-up convergence with MGNREGS for development of nutri-gardens in 5 lakh households across the state. 220 community Nurseries developed with support of Horticulture Department. 2000 Anganwadi Centres covered with nutri-gardens in convergence with W&CD Department and supply of fruit tree seedling (Lemon, banana) with support of Agriculture Department. It was further informed that 47,00 WSHG members practicing PLA-LANN & 11,074 community cadres trained on project activities. 3,72,945 household nutri-garden (37,326 landless and 3,36,669 land-based) were set-up. 220 community nursery to support seedling supply were established and 12,560 households promoted with livestock intervention.

4.3 He also informed about future intervention planned under the projects among these are to promote seed conservation at household level in 750 GPs. Sustain community nursery initiative and scale up (2/block). Cover 75,000 WSHGs through PLA-LANN and scale up to all 314 blocks. Scale up nutri-garden to institutions (AWCs and Residential schools).

Technical Session-II

1. The second technical session focused on the comparative picture of fighting hunger across the World vis-a-vis India and among different States of India. Mr. Bishow Parajuli of World Food Programme, United Nations, while making a presentations brought out the major cross country/region comparison on prevalence of mal nutrition in different forms. He brought out the Government of India's Efforts on Safety Nets, India foodgrain situation including its trend since 1960 and impact of Climate Change on India's Foodgrain, share of population that is under- nourished, share of children who are stunted, impact of COVID-19 Pandemic on Livelihoods.

1.1 In his opening discussion on SGD No. 2 i.e. 'End hunger, achieve food security & improved nutrition & promote sustainable agriculture' he briefed the facets of SDG No.2 i.e. by 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round; end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons; double the 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 and opportunities for value addition and non-farm employment; ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality and by 2020 maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

1.2 Dwelling on the Government of India's Efforts towards ending hunger, he complimented the World's Largest Food-Based Safety Nets as he focused on the National Food Security Act (2013) to ensure every person can access nutritious food, the Mid-Day Meal Scheme for providing hot cooked meals for children aged 6-14 years to nearly 90 million school-going children through the country, the Targeted Public Distribution System (TPDS), the largest food subsidy scheme providing 60 million MT of food grains to nearly 800 million targeted beneficiaries each year and ICDS caring the first 1000-days of an infant's life to prevent malnutrition for children below 3 years and pregnant and lactating mothers that serves 100 million beneficiaries.

1.3 Touching upon the India's foodgrain output position he mentioned that country's foodgrain output rose 2.66% to record 305.43 MT in 2020-21 and National agricultural commodity export grew by nearly 25% over \$15.9 billion in 2019-20. Driven by rice & wheat exports that touched record high of almost 20 MT in 2020-21. Sufficient stock of food grains available with Food Corporation of India; FCI procured total 388.34 LMT wheat and 745.66 LMT rice till June. Also, he mentioned the trend in principal food grain

production from 1960 to 2021. He too touched upon the likely adverse impact of climate change on the food production in India as he mentioned that the rainfed rice yields in India are projected to reduce marginally (<2.5%) in 2050 and 2080 and irrigated rice yields by 7% in 2050 and 10% in 2080 scenarios. Wheat yield projected to reduce by 6-25% in 2100 and maize yields by 18-23%. Based on the vulnerability analysis, he divided the districts into high risk and risk ones: 109 districts out of 573 rural districts (19% of total districts) are 'very high-risk' districts, while 201 districts are risk districts.

1.4 He presented the country/region-wise share of population those are under nourished and share of children those who are stunted. He showed that the States/UTs of Arunachal Pradesh, Chandigarh, Goa, Jammu & Kashmir, Kerala, Ladakh, Lakshadweep, Mizoram, Punjab, Sikkim and Tamil Nadu are the front runners, Andhra Pradesh, Delhi, Haryana, Himachal Pradesh, Karnataka, Manipur, Nagaland, Puducherry, Rajasthan, Telengana, Tripura and Uttarakhand are performer as Andaman & Nicobar Islands, Assam, Bihar, Chhattisgarh, Dadra and Nagar Haveli, Daman and Diu, Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, Meghalaya, Odisha, Uttar Pradesh and West Bengal are the aspirant States in fight against zero hunger as no State was shown as achiever.

1.5 Mr. Bishow Parajuli highlighted the COVID-19 impact on livelihood too. He mentioned that the International Labour Organization's initial prediction was that nearly 25 million jobs would be lost worldwide due to the pandemic and would mean income losses for workers between **\$860 billion** and **\$3.4 trillion** by the end of 2021. By the end of 2020, the organisation reported a loss of **81 million jobs** in the Asia Pacific region. The unemployment rate in rural India was **10.63%** in May 2021. Migrant workers' income had fallen by an average of **85 percent** after returning to their rural areas of origin.

1.6 After hailing the India's effort infighting hunger through the largest food safety net programmes, he informed about Thailand's national nutrition development that was accomplished through a process with nine key components which include recognizing the problem, assessing nutrition status, using experience from successful nutrition programs to build critical mass around key influencers, cultivating political and social commitment, increasing collaboration and planning between sectors, building awareness and initiating action, integrating nutrition into social and health development, improving quality of life through community participation and targeting services and resources to the areas and individuals with greatest need.

1.7 He brought out the WFP India's five pronged strategic action plan towards this end which are Access to Food: Ensuring Access to food by strengthening efficiency and effectiveness of the TPDS, Quality Nutrition: Ensuring Quality Nutrition for all by strengthening efficiency and nutritional effectiveness of TPDS, MDM & ICDS, Disaster Resilience: Enhancing National Capacity for Climate adaptation and disaster resilience in Food & Nutrition Security, promoting SSTC, Gender & Inclusion: Enhancing gender equality and empowerment through gender transformative approaches and mainstreaming inclusion, Generating Evidence: Generating Evidence for Policy Advocacy and Strengthening National capacities on monitoring and evaluation of Government schemes. He also outlined the sustainable solutions for hunger & malnutrition that include enable children access to fortified supplementary nutritious food through government food safety nets for optimal growth and well-being; reach migrant workers, and their families who are

eligible for social protection schemes but excluded from Food Safety Nets and enabling them to access their entitlements; empowering women with livelihoods and enabling access to nutritious food for themselves and their children and Strengthening government safety nets while generating awareness about social protection schemes are both crucial to ensure that beneficiaries have better access to their entitlements, with greater confidence on improved government systems.

1.8 After analysing various facets of hunger, he outlined the role that can be played by the Panchayats in addressing food and nutrition issues which include map food insecure and nutritionally vulnerable population based on age, reproduction, occupation, area and assess health needs for each category; support in linking the community to the different schemes on food and nutrition security; monitor and ensure high quality and appropriate health and nutrition service delivery through the various government institutions at the village level. Supervise care providers – ASHA, ANM & AWW; set the local nutrition goals and targets for the Gram Panchayat in collaboration with the relevant departments. Based on goals and targets, develop specific plans for each category; ensure effective functioning of the Village Health Sanitation and Nutrition Committee (VHSNC); organize awareness campaigns on nutrition- causes and solutions; promote Climate Suitable Crops, help diversify livelihood opportunities and help prevent and Provide adequate responses to natural disasters for the needy.

2. The office of Principal Scientific Adviser to the Government of India made presentation on role of Science, Technology and Innovation (STI) for Sustainable Development Goals (SDGs) focusing on National Initiative on STI for SDGs Roadmaps, Technology Facilitation Mechanism (TFM) and Global Pilot Programme on STI for SDGs Roadmaps, STI for SDGs Roadmaps and Policy Template for India, STI for SDGs Roadmaps for Other Pilot Countries, Role of STI in India's Food System, STI for SDGs Roadmaps with Priorities on Sustainable & Resilient Agriculture and Initiatives of PSA office towards SDG2.

2.1 Dwelling on the role of STI for accelerating SDGs – cost effective digital and technological solutions and PM's Vision on Scientific Social Responsibility and New India – R&D, application and deployment etc, Dr. Chaturvedi brought out that National Initiative on STI for SDGs Roadmaps led by the office of PSA that include the existing and emerging technologies, indicator-based mapping of 'surplus' & 'deficit' technologies for SDGs 2 (agriculture & nutrition), 3 (health), 6 (water & sanitation) and 7 (energy). With Rural Communities at the heart of SDG 2 Agenda and key roles played by the line Ministries, NITI Aayog, MoSPI, State Governments, Local bodies, grassroots institutions focus is laid on access, equity and inclusion for SDGs Roadmaps directly relevant for rural sector.

2.2 Outlining the Technology Facilitation Mechanism (TFM) and Global Pilot Programme on STI for SDGs Roadmaps, Dr. Chaturvedi mentioned about the launching of Technology Facilitation Mechanism (TFM) at the UN as part of Agenda 2030 (SDGs) in 2015, launching of Global Pilot Programme on STI for SDGs Roadmaps with 6 pilot countries including India in 2019 (Initiative strongly supported by G20 Osaka Summit) as he exalted India's powerhouse of digital technology solutions, digital public goods and potential low-cost tech applications across SDGs and India leading pilot country; knowledge transfer and capacity building through South-South Cooperation.

2.3 On India's Historical Technology Leadership on SDG 2, he informed that India has been actively sharing its agricultural technologies with many Asian and African countries for last many decades like improved germplasm for Sugarcane: knowledge sharing with Ethiopia which played a significant role in reviving Ethiopia's sugar industry. India implemented a Technical Assistance Programme (TAP) for cotton in four African countries (Benin, Burkina Faso, Chad, Malawi) (Cotton-4), which is now extended to include 7 more African countries (Mali, Ghana, Togo, Zambia, Nigeria, Uganda and Tanzania). India has also been implementing various measures on Socio-Economic Considerations (SECs) prior socio-economic assessment related to new varieties of crops are undertaken by involving all the stakeholders to ensure better technology adoption and diffusion.

2.4 STI for SDGs indicator based assessment (UN Indicators vis-à-vis India's National Indicators) - as well as through incorporating relevant STI indicators that are not part of SDG indicators, mapping and assessment of technologies for achieving the SDG targets (with innovation, readiness and deployment parameters) and assessment of institutional preparedness, technology availability and development of roadmaps are the policy template for India for the STI driven SDGs roadmaps.

2.5 He informed the participants on the STI for SDGs Roadmaps for other pilot countries. The country-wise road maps as he gave is as under:

Country	STI for SDG Road-map
Ghana	<ul style="list-style-type: none"> - Aspects of situational analysis, financing arrangements and a monitoring framework - Ghana's plan is to implement from 2021-2030 up to 50 programs, projects and activities by mobilizing resources through GoG budgetary supports/donors with the help of the Ministry of Finance, President of Ghana
Ethiopia	<ul style="list-style-type: none"> - The STIP Review process included the mobilization of the three core inputs for the STI for SDGs roadmap process. 1) Stakeholder Engagement 2) National Policy 3) Data - 22 sectoral technology roadmaps; Implementation plans have only been prepared for 3
Kenya	<ul style="list-style-type: none"> - Used indicators from the SDG Index, African SDG Dashboard 2019 report, the Kenya Department of Planning Status Report 2019, National Statistics, Food Insecurity Index as well as a Kenyan SDGs Policy Gaps Analysis (2018) - To contribute towards realization of SDG 1, SDG 8 and SDG 9

	<ul style="list-style-type: none"> – SDG 2.3 also synchronizes well with the aspiration of the Big Four Agenda for Agriculture and Food Security
Serbia	<ul style="list-style-type: none"> – Serbia decided to leverage on 4S development process to elaborate the STI for SDGs Roadmap – Serbia has developed its STI for SDGs Roadmap based on the Smart Specialization Strategy – It aims to inform and guide public and private investment in a number of STI priorities with highest potential impact on socio-economic development

2.6 STI interventions at various chains in food systems such as food production, availability, access, use and induce systemic change in food and innovation systems to eradicate hunger & poverty; identifying and deploying emerging technologies with high impacts on food access & their scaling-up like post-harvest technologies and process innovation in handling and marketing, enhancing food & nutritional security through localised processing units, adapting food production to climate change, and the experience of early warning systems that leverage satellite and other meteorological data; convergence of technologies such as AI, drones, Internet of Things and big data for precision farming and agricultural STI to address women's needs in food systems are the important roles that STI can play in India's Food System. The priority area for sustainable & resilient agriculture in this direction include affordability of emerging technologies, diversification from 'staples', providing scientific support across the whole value chain, access to quality inputs/mechanization, training and capacity building and depleting soil health and water conservation.

2.7 The Initiatives of PSA office towards SDG2 include release of *report policies and Action Plan for a Secure and Sustainable Agriculture* in 2019, *Kisan Mitra-'Friends of the Farmers'* aiming to make Indian farmers more self-reliant by giving them insights and recommendations based on information from various data sources from different departments of the Government, *Rural Technology Action group (RuTAG)* - developing innovative technologies for the identified demands of the rural areas through RuTAG centres supported at seven IITs. RuTAG technologies would help in better post-harvest management, value added products etc and *National Biodiversity Mission* - under the Prime Minister's Science, Technology, Innovation, Advisory Council (PM-STIAC) would be implemented by MoEF&CC. Aiming to bring conservation and biodiversity to the forefront of Indian science, policy, and society's attention.

2.8 In the final segment of the presentation, the speaker highlighted the infinitives under Jal Jeevan Mission (JJM) such as internet-of-things (IoT)-based sensors and flow meters of water-quality detection kits and a new mobile application, cost-effective solutions for providing safe tap water to every rural household in the country by 2024, JJM mobile application, which will be launched soon, will provide details of water

infrastructure, an Aadhaar verified data set of beneficiaries, and water quality and contamination-related information for each village.

3. The National Institute of Rural Development and Panchayati Raj (NIRD&PR) in their brief presentations brought out the interventions in capacity building and training of the PRIs towards 'No Poverty and Zero Hunger' goal which include enabling multiple channels of capacity building / hand holding / igniting / mentoring, certifying / accrediting trainers / resource persons, promoting for creation of Islands of Success, interstate/ intra state mentors to infuse enthusiasm, documentation of Success Stories, e-Enablement of Panchayats, qualitative and holistic formulation of comprehensive GPDP, BDP & DDP, institutional strengthening PRIs, harnessing social capital- PRI- SHGs convergence for GPDP, BDP & DDP, evidence based planning using Mission Antyodaya survey data, SECC data and GIS maps, integrating the issues of Gender, Children, Marginalized Sections, Elderly and PwD in GPDP, BDP & DDP, integrating the issues of Education, Health and Nutrition in GPDP, BDP & DDP, integrating the issues of Economic development in GPDP, BDP & DDP w.r.t. Agriculture & Allied Activities / Livelihoods,/ Skill Development and mainstreaming of SDGs into GPDP, BDP & DDP by identifying the priority areas of interventions and the like.

4. The Kerala Institute for Local Administration (KILA) shared their State experience in fighting hunger and malnutrition as the speaker Ms. Sukanya K. U. dwelt on micro plans for the extremely poor and vulnerable, services at the doorstep, specific target to achieve Hb 12 for everyone and actions under Subhiksha Keralam. Under the Micro Plans for the Extremely Poor and Vulnerable, Panchayats to identify the extremely poor, vulnerable and the destitute through a community led process for which criteria based identification to be carried out such as access to food, debilitating diseases, inability to work and lack and the like. The reason for the condition will be unique for each of them. Accordingly, micro plans to be prepared for each of them by the Panchayat, planning and implementation by the Panchayat. This to be supported by Kudumbashree (Women NHG) in collaboration with various governmental and non-governmental agencies and convergence at the Household level.

4.1 She brought out the services delivered/deliverable at the doorstep such as elderly who are alone, who needs support in accessing materials and other services, people who are bedridden or immobile due to various conditions, paraplegic patients, people having chronic diseases or similar debilitating diseases, differently abled who are extremely poor or living alone. To carry out the above, ASHAs and Volunteers are trained and designated for each of them and there is Sannaddha Sena (Volunteer Force) in every Panchayat for this purpose.

4.2 She briefed the novel Target_12 initiative of the Government with focus on improving the nutritional status of adolescent girls and women with specific target to achieve Hb 12 for everyone. Anganwadi as the nodal institution for the purpose. Technical support and supervision to be extended by the Department of Women and Children. Anganwadis are transferred institutions to the Panchayats and managed by the Panchayats and GPDP to set mandatory funds for this.

4.3 She gave an account of the Subhiksha Keralam initiatives of the State that aims at attaining self-reliance in food production, enhancing the incomes of farmers, employment generation, attracting youth and repatriates to agriculture, strengthening the animal resources and fisheries sectors, and promoting organic farming for safe to eat food. Joint action of various departments under the leadership of Panchayats have been advocated. Panchayats to provide credit, marketing, and irrigation support in addition to community mobilisation. Self-sufficiency to be achieved through large scale production of paddy, fruits, vegetables, grains and legumes. Fallow land cultivation, homestead cultivation, crop improvement activities for the existing cultivation, improved market facilities, interventions in the post-harvest management and long-term interventions. Kudumbashree, Joint Liability Groups and other groups are in action in this direction.

Technical Session –III

The Technical Session–III titled, ‘**Public Distribution and Zero Hunger**’ was chaired by Dr. Yogesh Suri, Senior Advisor, NITI Aayog. This session had three Speakers to deliberate on the subject. The main presentation was made by Ms. Manish Sensarma, Economic Adviser, Department of Food & Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution followed by the experience sharing by the States Rajasthan and Chhattisgarh and Uttar Pradesh on initiatives taken for ensuring food security through effective public distribution systems etc.

Discussion Points of Department of Food & Public Distribution, MoCA,F&PD

1.1 Ms. Manisha Sensarma made an exhaustive and informative presentation on provisions of **National Food Security Act (NFSA)** and measures/ actions taken for ensuring food security. The SDG target 2.1 triggers towards end hunger and ensure access by all people, in particular, the poor and people in vulnerable situations, including infants, to safe nutritious and sufficient food all year round by 2030. The implementation of National Food Security Act provides legal entitlement to food & nutritional security and hence facilitating implementation of SDGs.

1.2 National Food Security Act implemented since July 5, 2013 (by November 2016, all the States and UTs implemented NFSA) marks a paradigm shift in the approach to food security from welfare to right based approach. It provides legal entitlement to food to bottom 67% of the population (75% of population in rural areas and 50% of population in urban areas). NFSA covers Antyodaya Anna Yojana (AAY), BPL and partially APL category of erstwhile TPDS under Priority Household (PHH). Uniform Central Issue Price (CIP) of INR 3/2/1 was fixed for Rice/Wheat/Course Grain.

1.3 She highlighted the key provisions of NFSA. She informed that corresponding to the all India coverage of 75% and 50% in the rural and urban areas -State-wise coverage under NFSA determined by the erstwhile Planning Commission (now NITI Aayog) using the NSS Household Consumption Survey data for 2011-12. Within the coverage under TPDS determined for each State, the work of identification of eligible households is done by States/UTs in accordance with such guidelines as the State Government may specify. Antyodaya Anna Yojana (AAY): Entitled to 35 kg of food grains per family per month. Priority households (PHH) entitled to 5 kg per person per month. Application of ICT tools

including end-to-end computerization to ensure transparent recording of transactions at all levels, and to prevent diversion leveraging “Aadhaar” for unique identification with biometric information of entitled beneficiaries for proper targeting of benefits Full transparency of records. Special provisions for pregnant women and lactating mothers and children in the age group of 6 months to 14 years, by entitling them to receive nutritious meal free of cost through. Widespread network of Integrated Child Development Services (ICDS) centres (Anganwadi Centres), through schools under Mid-Day Meal (MDM) scheme, higher nutritional norms have been prescribed for malnourished children upto 6 years of age, pregnant women and lactating mothers also entitled to receive cash maternity benefit of not less than Rs. 6,000 to partly compensate for the wage loss during the period of pregnancy and also to supplement nutrition.

1.4 NFSA is protecting rights of beneficiaries. Non-supply of the entitled quantities of food grains or meals leads to food security allowance from the concerned State Government. An effective Grievance Resolution Mechanism is established in each State. Vigilance Committees at the State, District, Block and fair price shop levels to promote transparency and accountability. Provision of periodic Social Audits by local and designated authorities.

1.5 The reforms in Targeted Public Distribution Systems introduced were brought out by her as she dwelt on ONORC plan started under the IM-PDS scheme to sustain & build upon the reforms brought in by the “End-to-End Computerization” scheme. Facility for eligible beneficiaries to lift their entitled food grains from any Fair Price Shop (FPS) of their choice in the country. System to largely benefit the migratory beneficiaries under NFSA who frequently change their place of dwelling in search of employment, etc. across the country. Eligible migratory beneficiary under NFSA may receive his/her entitled quota of subsidized foodgrains in another State/UT/district by using the existing ration card/Aadhaar number. Operational in 33 States/UTs and likely to cover entire country in coming months.

1.6 The present role of Panchayats under NFSA and other likely role they can play for effective implementation of NFSA was discussed. Presently, Total 9645 Fair Price Shops (1.8%) are being run under the Village Panchayats. Panchayats has a specific role in NFSA i.e. Identification of AAY Families (Poorest of the poor) discussed in Panchayats before the finalization. Various states have assigned the role of Social Audit under NFSA to Gram Panchayats. (e.g. Rajasthan, Odisha). Panchayats can handle the issue of wrongful inclusion and exclusion of beneficiaries in database. Beneficiary database can be displayed in public and panchayat may decide on wrongful inclusion and exclusion Social audit of Fair Price Shops (FPSs) may be undertaken by the Village Panchayats for ensuring beneficiaries are getting adequate quality and quantity. Panchayats may act as approver for persons without Identity/Address Proof Biometric Authentication Failure cases can be handled through Panchayats, and food grains may be disbursed. Disbursement of Food Security Allowance to persons who could not get food grains **Channelize grievances** of beneficiaries to district level offices and **awareness generation**. Beneficiary grievances can be channelized through the Village Panchayats Awareness generation on ONORC, GRM Inclusion and Exclusion parameters.

1.7 She also touched upon the self-sufficiency in Foodgrains to Support the Public Distribution System. This year record wheat procurement of 433.32 LMT undertaken in RMS 2021-22 surpassing previous best of 389.93 LMT (RMS 20-21). Punjab, Uttar Pradesh, Rajasthan, Uttarakhand, Gujarat, Himachal Pradesh and J&K recorded their best ever. Record 49.15 Lakh farmers benefited against 43.35 Lakh last year. “One Nation, One MSP, One DBT” implemented across the country. An all-time high amount of Rs 84,844.52 Crores transferred directly into farmer’s account across India till August. A record quantity of 872.27 LMT paddy procured in KMS 2020-21 up to 05.08.2021 surpassing last year total procurement of 770.93 LMT paddy. Punjab, Bihar, Gujarat, Telangana, Jharkhand, Kerala, Madhya Pradesh, Odisha, Tamil Nadu, Uttarakhand & Uttar Pradesh surpassed their best ever procurement. All time high 128.76 Lakh farmers benefited so far against 124.59 Lakh farmers last year. Rs. 1,68,57703 Crores of MSP transferred directly into farmers’ account (all time high).

1.8 Initiatives taken during COVID-19 pandemic was also clearly mentioned by her. During COVID-19 lockdown, various schemes benefited the citizens 350 LMT foodgrains were allocated to States/UTs during April to November 2020 for regular supply of entitlements for all beneficiaries covered under NFSA. Under Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY) around 321 LMT foodgrains were allocated to States/UTs during the 8 months period for supply of additional 5 Kg foodgrains per person per month, free-of-cost, for all beneficiaries covered under NFSA. Initially distributed for a period of three months of April to June 2020; further extended from July to November 2020. 8 LMT foodgrains were allocated to States/UTs for distribution of 5 Kg per migrant person (not covered under NFSA or any other state PDS scheme) per month for a period of two months of May and June 2020, further distribution of lifted quantity extended up to 31st Aug. 2020. Food Corporation of India supplied 77.42 LMT free food grains to all 36 States/ UTs till 28th June, 2021 Pradhan Mantri Garib Kalyan Anna Yojana extended for 5 months i.e. July-November 2021 and further allocation of 198.78 LMT food grains have been made under PMGKAY-IV.

1.9 She exalted the positive outcomes under NFSA and showed the way forward in her concluding part of the presentation. NFSA results in positive human rights outcomes in order to ensure Right to food. Pace of reforms aimed at better targeting picked up. This is providing higher coverage and increased entitlements. It facilitated cleaning up RC database – Improved credibility of Ration card lists. NFSA ensured lowering of inclusion and exclusion errors and hence enhanced transparency. The Department of Food & Public Distribution is in process of completion of end-to-end computerization of PDS. Extending one nation one ration card to all States System for continuous and reliable updation of ration cards Rightful targeting of beneficiaries Robust grievance redressal mechanism and awareness generation Addressing lack of dietary diversity/ nutritional efficiency under PDS Fortification of foodgrains.

Experience Shared by the State of Uttar Pradesh

2.1 The representative of Department of Food & Civil Supplies, Govt. of Uttar Pradesh through power point presentations shared their experiences on implementation of food security act and role of Panchayats for its effective implementation at ground level besides the innovative initiatives taken by the at the State level.

2.2 Under the National Food Security Act-2013 eligible families are covered with food security through Antyodaya and household card in Uttar Pradesh. At present a total of 3,60,02,426 ration cards are in operation in the state, under which The number of affiliated units is 14,85,92,233. There are 2,97,10,197 ration cards in the rural area and the number of units affiliated to it is 12,19, 95,015, which is 78.11 percent of the rural population. There is also a system of online application for the interested beneficiary through Sahaj Jan Suvidha Kendra. The applications are verified by Gram Panchayat Officer of the concerned Gram Panchayat/Gram panchayat development officer. On being found eligible in the verification, the applications are approved by the Regional Supply Inspector, after which the beneficiary becomes authorized to get the food grains. Apart from this, verification of Antyodaya and eligible household cards is also done in Gram Panchayats from time to time. After verification, the prevailing list and the required amendment in it are read out in the meeting of the Gram Sabha. In order to ensure transparent distribution and to ensure the identity of the real ration card beneficiary, the work of seeding the Aadhaar of each member is being done in all the ration cards, which is going on continuously. After feeding their Aadhaar in the ration card database of the beneficiaries, the work of Aadhaar validation / seeding is being done through UIDAI. At present, 98.41 percent at the head level & 99.01 percent at the entire member level, Aadhaar validation / seeding work has been done.

2.3 Installation of e-pos machine and distribution of food grains in fair price shops of the State-Food grains are being distributed to the beneficiaries through Aadhaar authentication and by e-pos machine at 79612 fair price shops in all urban and rural areas of the State. In Uttar Pradesh, the distribution done through Aadhaar authentication is highest in the country. All the transactions are done online and the related reports are updated in real time.

2.4 One Nation One Ration Card (Ration Card Portability)-National level portability of ration card has been adopted by implementing One Nation One Ration Card system in all the districts of the state. Under the 'One Nation One Ration Card' scheme, the facility of national portability is applicable in the state from the month of May 2020, under which 43,572 cardholders of Uttar Pradesh have been received food grain in other States and a total of 6,616 cardholders of other states Got its food grains in Uttar Pradesh.

2.5. Providing food grains to the disabled at home- Facility of providing food grains to more than 8,137 disabled people of the state at their residence has been provided by the department.

2.6 Distribution of free food grains under NFSA by the State Government during the COVID-19 epidemic – During the COVID-19 pandemic State Government provided under the NFSA free food to eligible families from April 2020 to June 2020. Under this, a total of 08 lakh metric ton of food grains have been distributed free of cost. The total expenditure of about Rs.195 crore was paid by the State Government. Similarly, in the year 2021, in order to reduce the economic side effects of the second wave of corona epidemic, food grain is being provided free of cost to all the ration card holders under the National Food Security Act-2013 for 03 months June, July and August, 2021. The expenditure burden of which is about Rs 188 crore per month, which is being borne by the state government.

2.7. Distribution of free food grains under Pradhan Mantri Garib Kalyan Anna Yojana- Under this scheme, distribution of 05 kg free food grains per unit and 01 kg free gram to all Antyodaya and eligible household card holders has been done from April, 2020 to November, 2020. A total of 56.19 lakh metric tonnes of food grains and 2,69,529 metric tonnes of gram have been distributed free of cost under this scheme during the said period. This year, free distribution is being done under the scheme from the month of May, 2021.

2.8. Distribution of fortified rice- With a view to providing nutritious food, distribution of fortified rice has been started in Chandauli district and Sewapuri development block of Varanasi district.

2.9 Contribution of Gram Panchayats in National Food Security Act- Under the National Food Security Act-2013, by covering the eligible families with food security, Gram Panchayats have an important role in achieving the objective of zero hunger, 78.11 percent of the coverage has been achieved in rural areas against the maximum limit of 79.56 percent. Due to the awareness of Gram Panchayats, ineligible families are constantly being excluded from the list and eligible families are being included. Vigilance committees have been constituted at the Panchayat level to ensure food security. The selection of vacant fair price shops in rural areas is done only through the resolution held in the open meeting of the Gram Sabha.

Experiences Shared by Rajasthan

3.1. The speaker, Smt. Navneet Sandhu, Sarpanch, Gram Panchayat Srinagar, District Hanumangarh shared the effective initiatives and actions taken in her Panchayat towards achieving goal of Zero Hunger. Hanumangarh district is developing as rice bowl of India.

3.2. Under National Food Security Scheme, the Ration Cards to the NFSM beneficiaries and Non- NFSM beneficiaries were issued through Gram Panchayats. The facility of portability of Ration Card is ensured. Essential food materials are available to the Fair Price Shops. Regular monitoring of the Stock and Quality of the food material along with proper storage is done by Gram Panchayat. Food Materials are distributed through biometric PoS machines. Unique DRC transition through PoS. All the transactions related to PDS are Aadhaar seeded. Jan Aadhaar is linked with Ration Cards under PMGKAY Scheme. Wheat and Pulse are distributed to all the beneficiaries under the scheme.

3.3 Rajasthan has also taken initiatives for establishing Agro- based processing units to promote village based entrepreneurs. Under NFMS farmers are supported for Wheat & Pulses, Commercial Crops, Oil seeds, Production of foundation & Certified Seeds & Integrated Pest Management, Bio-fertilizers Gypsum & Pipes for water caring, Farmer's Training, Agriculture implements, mini kits, seed treatment. Support is being provided for Model Organic Farms, Organic Inputs, packing leveling and Branding of organic produce etc. Effective implementation of NFSM, RKVY, NMAET, PKVY, PMKSY (irrigation), NMSA (Micro irrigation, Organic Farming, Soil Health etc.) The State is working on the initiative of One District One Product under Rajasthan Grameen Aajeevika Vikas Parishad (RAJEEVIKA) (Hanumangarh – Agriculture based Industries)

3.4 SHGs are also associated with food products processing. SHGs are involved in preparing fortified Supplementary nutrition & take home rations (THR) for lactating and pregnant women to support WCD. SHGs also providing support Mid-Day Meals (MDM) to ensure Nutrition in the Children. The income of the farmers can be doubled by these initiatives.

Experiences Shared by Chhattisgarh

4.1. The speaker, Shri Himanshu Kumar Sahu, Directorate of Panchayats, Chhattisgarh while sharing about the effective PDS reforms and food security to ensure zero hunger in the state emphasized that Chhattisgarh is a first state who has implemented Chhattisgarh Food and Nutrition Security Act in 2012 for providing food security constitutionally. The PDS reforms in Chhattisgarh were accepted as models in National Food Security Act, 2013.

4.2. Chhattisgarh Food & Nutrition Act, 2012

The families under Chhattisgarh Food & Nutrition Act, 2012 are divided into three categories i.e. Antyodaya Families (which includes families special weak, tribal groups, having widows, head of family suffering with incurable disease and where head of the family is above 60 years and without any livelihood), Priority Families includes families with landless agricultural workers, small and medium agriculturist & families whose head of the family is working as a labourer in an unorganized sector or construction labourer. General Families has enlisted families other than Antodaya and Priority families. The name of senior or adult woman member is marked as head of the family in the ration card for ensuring women empowerment under this act.

4.3. Public Distribution system in Chhattisgarh

The distribution of Ration in rural areas of Chhattisgarh is done through 11220 Fair Price Shops which is operated by the Self-Help Groups, Cooperative Societies and gram panchayats. The computerization of PDS was started in 2007 which results in distribution of ration materials under PDS through online process upto Tehsil level. Chhattisgarh has also got e- governance award for ensuring computerized PDS system in the state. Presently, the state is in process of digitalization of Fair Price Shops through Android based tablet. Each family under universal PDS system is getting at least 35 Kg rice. Prior storage of ration materials is ensured in far places or the places where the roads are blocked in the rainy season

4.4. Efforts for Ensuring Food Security and Zero Hunger

To make up the Anaemia and deficiency of other nutritious elements, distribution of Fortified Rice was started on 1st November, 2020 in Kondagaon District. Distribution of ration material by verification of Aadhaar Number with seeding of Aadhaar numbers of Head of the Family with other family members in the ration cards. Provision for applying new/ updated ration cards within 30 days has been made under Public Service Guarantee Act, 2011.

The citizens can do real time monitoring and tracking of ration distribution system by registering them through SMS & email on **Janbhagidari** website. This will enhance

transparency and accountability in PDS. A toll free helpline number has also been issued for getting information about PDS and raising their grievances.

4.5 Efforts Made during COVID-19 Lockdown Situations

The State of Chhattisgarh has provided free rice without Ration Cards to the migrants of different States during COVID-19 lockdown in May & June 2020. An Android Mobile App 'Pravasi Kadhya Mitra' was also developed for this purpose. A State level Control Room to ensure supply of ration & grains to the migrant labourers, poor families & needy persons was established by the Department of Food, Civil Supplies and Consumer Protection in March 2020. The facility of getting ration from any Fair Price shop through ration portability was also provided to the persons who were unable to get ration from their Fair Price Shops due to lockdown.

Technical Session - IV

The Technical Session No. IV titled, 'Minimization of Food Production and Processing Losses - Indispensable Means Towards Zero Hunger' was chaired by Dr. Anandharamakrishnan, Director, Indian Institute of Food Processing Technology (IIFPT), Ministry of Food Processing Industries (MoFPI) that had four presentations/Speakers on the subject. The main presentations were made by Dr. R. Vidyalakshmi, Professor, IIFPT followed by the State experiences shared by the States of Andhra Pradesh, Karnataka and Madhya Pradesh on action taken to reduce food production and processing losses.

Discussion Points of IIFPT, MoFPI

1.1 Dr. Vidyalakshmi made an exhaustive, informative and updated presentation on extent of food losses, stages of food losses, causes of food losses and also the steps/ measures taken the point view of Government intervention, technological intervention etc. to reduce the losses.

1.2 It was brought out that annually 1.3 billion tons of food is lost/wasted which is one third of the total food production as 795 million people will go hungry. She informed that in the whole process, the production losses are at 24%, post-harvest losses at 24%, processing losses 4%, distribution losses 12% and at the consumption stage the losses is 35%. She also shared the vital information on crop/produce-wise losses which include 30% losses in cereals, 20% in dairy, 35% in fish and 45% fruits and vegetables. She also brought out that continuous increase in production coupled with lack of adequate and efficient processing and preservation infrastructure as the principal reasons of food losses at different stages. Besides, inadequate market systems, lack of proper coordination between the food processors and farmers, disaggregation of production by the small and marginal farmers are some of the other reasons that are responsible for losses in food.

1.3 Towards the efforts for minimization of food losses, she brought out the intervention by the Government policies, technology innovations, improvement in infrastructure and food quality standards. The initiatives taken by the Ministry of Food Processing Industries in creation of Food processing and preservation capacities and promotion of Food eco-system in the country was highlighted by Prof. Vidyalakshmi. In a move to support the micro food processors, 66% of which are in rural areas, under Atma Nirbhar Bharat initiatives of the

Government, a new Prime Minister-Formalization of Micro Food Processing Enterprises (PM-FME) Scheme is being implemented throughout the country by the Ministry of Food Processing Industries. The scheme has broad objectives of promoting and supporting one-district-one-product, common infrastructure, Self-help Groups, Farmers Producers Organizations, Cooperatives and individual micro food processors, seed capital for Self-Help Groups, training and research, capacity building and branding and marketing of the products. Under the Schemes of operation greens of the Ministry of Food Processing Industries, the subsidies are provided to the farmers, transporters for transportation of major fruits and vegetables from the production areas to consumption areas. In the technology segment, she brought out various technology innovations to reduce wastage and also she brought to the notice of all regarding the mobile food processing units catering to the needs of small processors in the areas having no established production infrastructure.

Experiences Shared by Andhra Pradesh

2.1 The speaker, Shri D. Subash, Project Manager, Andhra Pradesh Food Processing Society (APFPS) sharing the food processing experiences in the State of Andhra Pradesh informed that Andhra Pradesh Food processing sector stands first in the country in terms of number of registered food processing units with 14.75% share in the country as it stands in the 6th place in contributing gross value addition of Rs.7378cr and providing employment to about 1.5 lakh youth. To give thrust to the sector Andhra Pradesh Government has launched AP Food processing Policy 2020-25. In the State, about 75% of the enterprises are in unorganized sector and constitute to about 42% of the output and 60% of these are in villages and 80% are household units. They are less competitive and have limited market access.

2.2 To address the problems of micro and nano food processors, the State is implementing **PMFME scheme** from July 2020. Under the scheme, Credit linked grant at 35% of the project cost with maximum grant up to Rs 10.0 lakh is provided as support for upgradation of Existing enterprises and promote new enterprises. Assistance such as training in Technical knowhow and Entrepreneur Development Programme (EDP), handholding support by competent Resource Persons and facilitate market linkages etc. are being extended under the scheme. The State has identified more than 1300 units from January 2021 till date, more than 400 applications are being processed by Banks and about 40 loans are sanctioned during August with average project size is about 12 lakhs. Subsidy of about Rs.4.2 lakhs will be provided the enterprises. Women, SC and ST entrepreneurs are encouraged to participate in the scheme.

2.3. Seed Capital amount of Rs.40,000 is provided to SHG members practicing food processing activity. The amount can be utilised for raw material and purchase of small tools and equipment. The Seed Capital is provided as Grant to the Community Based Organisation (CBO). CBO will lend it to the SHG members and maintain it as revolving fund for encouraging food processing. Andhra Pradesh Food Processing Society (APFPS) along with State Rural Livelihood Mission (SRLM) has identified more than **7600 SHG members** for Seed Capital support for FY 2020-21. An amount of **Rs. 29.30 crores** has been released. It is estimated to add another 5000 members during FY 2021-22. This small investment supports incubation would lead to establishment of relatively bigger units by the members. Besides assuring livelihood to the members, at a macro level it is resulting in creation of an improved ecosystem, employment creation.

2.4. Further, credit linked grant at 35% of the project cost with maximum grant up to Rs 20.0 lakh to farmers groups which are involved in food processing for the last 2 years are provided along with training of members in Domain and EDP. Support for marketing and branding for products under One-District-One-Product (ODOP) for developing common brand. Support also extended for creation of common processing facilities.

Experiences Shared by Karnataka

3.1. The speaker, Smt. B. Fouzia Taranum, Chief Executive Officer, Zilla Panchayat Koppal, while sharing experiences from the State of Karnataka in food processing sector and assistance to the small food processors dwelt on the issues like infrastructure created in Panchayats to involve food processing & preservation activities, incentives to small food processors, formation and promotion of SHGs in food processing and various other initiatives.

3.2. Infrastructure created in Panchayats to involve Food Processing & Preservation

Creation of Onion Storage Structures through convergence of National Horticulture Mission (NHM) and MGNREGA, construction Worksheds using MGNREGA funds and NLM funds to promote small processing businesses. These serve as grading units, assaying units, micro processing units; while also encouraging women run small businesses. Micro processing units and Primary Processing Units have been set up under various Central and State Government schemes. Packhouses and Integrated packhouses have been subsidised for various individual farmers, farmer collectives, SHGs and FIGs/FPOs

3.3. Incentives to small food processors

FPO undertake aggregation of smaller lots of farmer-members produce, add value to make them more marketable by facilitating logistics services such as storage, transportation. With further branding and strong linkages, FPO can market their produce with better remunerative prices. Selco Foundation through CSR Aggregation has provided Solar based 5 MT cold storage to the FPOs to store produce. It also helps to demonstrate to farmers to avoid the post harvesting loss. Under Comprehensive Horticulture Development (CHD), 90% subsidy is given towards construction of cold storage. Rural Markets were constructed at Gram Panchayat level under MGNREGA and National Horticulture Mission. Subsidies were given for push carts to sell vegetables and fruits at rural and town area. Through Horticulture Boards packhouses, cold storages and ripening chambers precooling units and card board boxes were provided through subsidy. Direct Marketing during COVID-19 was also facilitated.

3.4. Formation and promotion of SHGs in food processing

Coverage of all poor households in a time bound manner, continuous handholding support to each poor households for 6-8 years, one time 'capital subsidy' and continuous infusion of capital (own savings, inter- loaning, seed capital and bank credit), farm and non-farm, skill based as well as self-employment training, development & utilizing social capital of the

poor, construction of Workshed MGNREGA, setting up of small processing units etc. are the major initiatives and actions taken to promote the SHGs in food processing activities like roti making, chilli powder making, snack making, mushroom cultivation and honey bee rearing.

3.5. Other initiatives such as Centres of Excellence (COE) to demonstrate simple techniques of post-harvest management to farmers, demonstration of scientific ripening technology and making available these through subsidies under various Central and State Schemes, fortification of food using MORINGA Powder (Pilot at Koppal District) to address malnourishment (SAM & MAM children in Anganwadi and Schools) have been taken.

Experiences Shared by Madhya Pradesh

4.1. The speaker, Shri Raman Wadhwa, Deputy Commissioner, State Rural Livelihood Mission, Govt. of Madhya Pradesh, gave a brief account of the initiatives and action taken towards localization of the Sustainable Development Goals (SDGs) that, inter alia, includes empowering Gram Panchayats for Planning, Service delivery and Monitoring.

4.2. In the areas of reducing food production and processing losses, role of Panchayats has been clearly outlines that includes formation of village level farmer groups, women farmer groups, providing information about modern agricultural technical methods and soil testing through Agriculture Department and Livelihood Mission, analysis of the status of soil testing in enhancing soil quality (Mission Antyodaya Survey Data) and Widening of Soil testing (Soil Testing Van, Soil Testing Card), expansion of SRI line (System of Rice Intensification) method, development of Land Use/ Land Productive Capacity through Land enrichment activities (Sub scheme of MGNREGS), timely treatment of crop seeds and availability of improved seeds, fertilizer and pesticide – Seed selection, Seed treatment & Seed testing, making advanced agricultural equipment available at subsidized price by convergence with line departments (Sprinkler, Sprayer, Drip etc.), and integrated Natural Resource Planning- Preparation of plan for conservation and promotion of water, forest and land by Gram Panchayats.

4.3. Action taken to reduce harvest and post-harvest losses include, special action plan for the maintenance and protection of agricultural crops and forest produce in the areas around the forests through village panchayats and forest management committees (Fencing, Human recourses and noise equipment), expansion of poly houses with the convergence of agriculture department, better planning and management of harvesting, threshing, storage and transportation, aggregation and forward linkages of food product - Operation of aggregation center at agricultural produce markets (APMC) , factories and panchayat cluster level, infrastructure construction in coordination with linkages and other departments - Easy transportation through MGNREGA and GPDP action plan (91246 approach roads, 2020-21), construction of 1456 storage houses and cold storages in cluster approach through GPDP in Gram Panchayats at Priority level, construction of large level storage through BPDP from the level of Janpad Panchayats- Aggregation of production through GPs, construction of 712 haat markets-cum godowns in the state for better management of food products at local level, establishment of processing units in villages by signing MoUs with organizations like Over Food, capacity building of available storage centers, localisation of PDS system- Strengthening of Village Anna Kosh (*Gaon ka Anna*

Gaon me), priority to innovations at Panchayat level – Focus on grading of food products by solar thresher, grading machines, cooperation in nutrition kit and vegetable production to more than 15 lakh women farmers through Poshan Vatika (Nutri Garden) in the State.

4.4. Work being done for food processing and food fortification through SGH and FPO – food processing for which support provided for formation of 67 FPOs through SRLM, aggregation and processing at cluster level through SGS and FPO, formation of small food processing units in collaboration with Panchayats. Units of Papad, Badi, Mustard Oil and Mushroom in District Sheopur, milk ecosystem started in the state in addition to millet mission in 6 districts for production, processing and marketing, production of organic fertilizers at Panchayat level through SGH, collection, marketing, transportation of agricultural products at Panchayat level through Krishi Sakhi and Krishi Mitras. Besides, manufacture of jaggery chikki and distribution through mid-day meal in Gwalior and Morena districts by SGH were undertaken.
