NABARD’s 38th Foundation Day 12 July 2019

Recommendations &
Proceedings of Panel Discussion on
‘Engaging Rural Youth Gainfully’

Department of Economic Analysis and Research
National Bank for Agriculture and Rural Development, Mumbai
2019
NABARD’s 38th Foundation Day  12 July 2019
NABARD’s 38th Foundation Day 12 July 2019

Recommendations & Proceedings of Panel Discussion on ‘Engaging Rural Youth Gainfully’

**Content**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Particulars</th>
<th>Page No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Recommendations</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Inaugural Session</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Developing Modern and Appropriate Technologies and Innovation</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Skilling of Youth for Entrepreneurship</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Developing Appropriate Eco-System for Establishing Rural Enterprises</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Valedictory Session</td>
<td>7</td>
</tr>
<tr>
<td>B</td>
<td>Proceedings of the Panel Discussion</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Inaugural Session</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Developing Modern and Appropriate Technologies and Innovation</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>Skilling of Youth for Entrepreneurship</td>
<td>27</td>
</tr>
<tr>
<td>4</td>
<td>Developing Appropriate Eco-System for Establishing Rural Enterprises</td>
<td>34</td>
</tr>
<tr>
<td>5</td>
<td>Valedictory Session</td>
<td>42</td>
</tr>
</tbody>
</table>

Department of Economic Analysis & Research
National Bank for Agriculture and Rural Development
Mumbai
RECOMMENDATIONS

Inaugural Session

1. Non-Farm Sector contributes significantly to the income of agricultural households in rural areas, as highlighted by the NABARD All India Rural Financial Inclusion Survey (NAFIS) 2016-17, undertaken by National Bank for Agriculture and Rural Development (NABARD). Initiatives aimed at creating employment opportunities in the non-farm sector in rural areas may be taken up which, apart from increasing the income of the farmers, will discourage their migration to urban areas.

2. Keeping in view that horticultural production has surpassed the food grain production in the country and also India has become the largest producer of milk in the world, greater emphasis on creating infrastructure for dairy processing, food processing as well as processing of horticultural crops, especially in rural areas, is needed.

3. As the idea of harvesting solar energy as third crop on the farmer’s field is gaining support from many quarters, the possibility of new job opportunities in rural areas relating to maintenance of solar equipment, requirement of electricians for electric pump sets, etc., can be explored.

4. With increased fragmentation, the agricultural landholdings size is shrinking and majority of these holdings are unable to generate sufficient marketable surplus and, thus, rendering agricultural activities unviable. Aggregation can be a solution to help farmers to create a volume sufficient enough to reach to the market. Supplementing the income of farmers from allied activities, viz., dairy, poultry and so on, would help the farmers, especially small farmers, to sustain their families.

5. Micro, Small and Medium Enterprises (MSME) sector has got a huge potential for job creation in rural areas but there is a need to connect various data points, viz., documentation of success stories, developing handholding tie-ups, branding of products, arranging marketing tie-ups and e-com tie-ups with a view to provide confidence to banks to provide financial support to entrepreneurs who are willing to takeup farm sector /MSME activities.

6. The Government of India (GOI) and NABARD may consider preparing a roadmap as to how to engage rural youth in the construction of rural infrastructure through programmes like Rural Infrastructure Development Fund (RIDF), Pradhan Mantri Awaas Yojana – Gramin (PMAY-G), Pradhan Mantri Gram Sadak Yojana (PMGSY) and so on.

7. Digitization efforts through JAM (Jan Dhan-Aadhaar-Mobile) trinity for opening of zero balance account have yielded good results. Today, there are close to 36 crore Jan Dhan Accounts having total savings balance of about Rupees one lakh crore. This can be used as margin money by banks to extend loans to farmers and other needy people and, thereby, for more productive activities.
8. New opportunities are emerging in agri-tech, agri-based e-commerce, information technology (IT)-linked agri-extension, seed technology, biotechnology, farm monitoring, agri/rural fin-tech, etc., enabling the educated rural youth to explore new ideas, undertake research and set-up start-ups. It is important to explore as to how to make these technologies rural youth friendly.

9. About one crore Self Help Groups (SHGs) involving 12 crore households have already been formed and are at various stages of development. These can be nurtured into business entities by engaging them in some sustainable livelihood options. The efforts towards digitization of transactions of SHGs under E-Shakti initiative of NABARD are capable of enhancing bankers' comfort in credit rating/appraisal and sanction; and thus, SHGs’ accessibility to quicker credit. This process should be expedited.

10. As far as skilling of rural youth for entrepreneurship is concerned, education and vocational skilling need to be integrated, a practice followed by many other countries. In order to enable youth to fit in with various needs of companies, apart from providing training at Industrial Training Institutes (ITIs), they should be trained to acquire different soft skills including basic English language skills as well. Restructuring school education becomes important since a significant proportion of the population discontinues education after school.

11. As many agri-focussed start-ups are emerging, there is a need to strengthen the rural start-up ecosystem so that the new startups get the support needed for their sustainability. The business models of these start-ups can be made affordable and popularized amongst the target groups. The possible encouragements/ incentives which can be extended to innovators to come out with solutions to the problems being faced in the agriculture sector, should also be indicated.

12. Although government has already put the training and educational system in place for skilling of entrepreneurs for various job opportunities, the private sector should also come forward to support the initiative of the Government. The Public-Private Partnership (PPP) model can be an effective approach to bridge the gap in agricultural education and so worth experimenting.

13. Establishing fellowship programme in different fields of agriculture may bring back youth with agricultural background to agricultural field and business and engage them in agriculture related Research and Development (R&D). Some suggestions for the same may be obtained.

**Technical Session-I: Developing Modern and Appropriate Technologies and Innovation**

14. There is a need to find ways to encourage in-situ value addition, which is crucial to ensure higher income for the farmers and insulating them against the fluctuations caused by market forces or vagaries of climate or by both.

15. The possibility to make the Krishi Vigyan Kendras (KVKs) a hub to converge all the technology solutions developed by different technology missions, departments of various institutions like ICAR, CSIR & other bio-technology institutions and private sector players may be explored. The modalities to make KVKs demonstration units,
particularly in Aspirational Districts, for various technology solutions in a time-bound manner may be worked out.

16. To help them scale up their business model/s on a sustainable basis, possible incentive structure may be explored.

17. It is estimated that with the installation of solar units (trees) having a height of about 3.5 metres with enough spacing between them to allow the tractor to pass through, farmers may earn an additional income of upto Rupees one lakh per acre for 25 years, provided the investment in solar units is made by the industrialists. However, this requires appropriate policy support allowing the State Electricity Boards (SEBs) /discoms to purchase the excess electricity evacuated by the farmers after connecting it to grid/feeder.

18. Budget announcement to support Zero-Budget Natural Farming appears to be incompatible with the government’s support in the form of fertilizer subsidy of about Rs 80,000 crore annually. It is better to distribute the budgeted fertilizer subsidy amongst the farmers on per acre basis through Direct Benefit Transfer (DBT) and the farmers should be free to decide the type of farming (organic or inorganic).

19. Government needs to review its policy on innovations like HTBT Cotton, BT Brinjal & GM mustard, etc., keeping in view their high production potential. A case in hand is Gujarat, which has registered a growth of 8% per annum between 2002-03 and 2013-14 mainly due to the impressive contribution of HTBT cotton. This is also important in the light of the import of edible oils, which is mostly produced from GM seeds.

20. There is a need to redefine the role of agricultural sector by limiting the crop production of staple crops just to meet the human & livestock consumption needs and releasing the excess land for production of those agricultural produce that would start feeding agri-processing and intermediate commodities for manufacturing sector. This can be achieved by increasing productivity of staple crops.

21. There is a need for recognizing the potential of secondary sector in supplementing farmers’ income. This requires developing new technologies to convert ‘by-products’ to other economic products, and making arrangements for capital and skill support.

22. Since average cropping intensity in India is around 141% and given that a farmer is unable to get engaged in agricultural activities for around 180 days in a year, an alternative plan where farmers can engage themselves on the fallow land during their lean period can be developed. For this, activities like bee-keeping, mushroom farming, primary processing of agriculture & allied products can be considered.

23. To overcome the challenges posed by weak extension system in the country, the Citizen Service Centres (CSC) may play the role of purveyors of taking the latest advances in production and post-harvest system to the field. Youth can be trained on various IT platforms to run these CSCs.
24. There is also a need to create more number of village markets since many small farmers having less marketing surplus may find it difficult to go to Agricultural Produce Market Committees (APMCs) located at a distant place. Further, small cold storages, dry storages, assaying labs and other marketing infrastructures are also to be created so that small farmers can take their produce there, aggregate them and integrate with e-NAM (National Agriculture Market) platform or the APMC.

25. The possibility of introducing mobile infrastructures including bio-refineries/phyto-refineries may be explored to provide various supports to farmers including processing support since they suffer from both excess and less production.

26. To encourage bio-economy, NABARD has to facilitate integration of agricultural research, industrial research and bio-technological research so that many new products can be developed from the by-products/agri-wastes by using phyto-refineries. This will boost farmer’s income to a great extent.

27. Attempt can be made to get the world class agri-based technologies and apply them in Indian agriculture system, e.g., use of drones to detect problems in crop fields/orchards. Such technologies may be provided to farmers as ‘services’. However, the adoption of hi-tech agricultural services can only be induced when farmers are incentivized to adopt them.

28. The skill development initiatives need to be compatible with programme and policies aimed at ‘digital India’. Given that numerical ability is randomly distributed among the population, a series of game-based aptitude tests may be used to identify mathematical abilities of the people in rural areas and provide some MS Excel based training to these identified people/youth to create ‘data technicians’ in rural areas.

29. KVKs may be mandated to play the role of a master franchise responsible to identify innovations that can be replicated by the masses.

30. NABARD may take lead in finding innovation/technology based solutions to some of the basic problems relating to agriculture, viz. (a) developing smart agricultural machinery (b) developing apparatus such as sensors to encourage precision agriculture to apply need-based fertilizer and micro-nutrients, and (c) solutions to the overuse of water.

31. Crops grown in different lands have different nutrients. There is a need to market them appropriately in the form of functional foods to enable farmers to derive price benefits from them. For example, crops grown in many rainfed regions are rich in Boron, which can be marketed accordingly.

**Technical Session-II: Skilling of Youth for Entrepreneurship**

32. Most of the rural youth have skills in different non-agricultural occupations such as handloom, handicrafts, etc., but there is a need to upgrade their skills and complement it by expanding their market access. Further, the skill development of individuals should be capability-based and focus should be beyond agricultural occupation to include courses on data analysis, paramedical fields like nursing, etc.
33. To ensure that skill development is linked to entrepreneurship creation, it is important to identify the locally relevant sectors that can provide entrepreneurship opportunities. In doing so, it is imperative to adopt bottom-to-top approach. One example of bottom-up approach is production of bio-gas in an integrated manner by utilizing the locally available organic matter in villages, such as animal waste product. It is possible to replace 50% of liquefied petroleum gas (LPGs), annual consumption of which is estimated at 23 million tonnes, by adopting bio-gas. The bio-gas production can be aggregated on the line of hub and spoke model, and filled bottles can be sold like LPG by the aggregators. As far as financing is concerned, these entrepreneurs can be provided interest free capital without any subsidy.

34. There is a need for skill mapping in the country. Expansion of skill development framework in the country will get a boost with the creation of skill development indicators, since it would facilitate laying down of mass skilling programme. Today there are opportunities in the areas of drone, modern practices of farming, other rural activities, etc.

35. There is a need for providing capability-based skill/training and to establish link among industry, academia and skilling agencies.

36. Convergence of initiatives is required to benefit from the synergies arising out of converging policies, infrastructure and other resources at the ground level. Policies should be formulated after conducting extensive research at the ground level. Gram panchayats, block-level and district level institutions need to play an important role in designing the policies based on local needs. This will facilitate building up an architecture required for creating entrepreneurship.

37. While there exists more than 500 Rural Self-Employment Training Institutes (RSETIs) and nearly 10,000 other institutions imparting vocational training to youth, various components of trainings address primarily the traditional areas which are not much in demand. They need to be modified suitably to cater to the aspirations of youth.

38. Mere provision of training may not be sufficient to benefit the youth. It needs to be complemented with other support, including handholding support, facilitating credit linkage to ensure a translation of skill development into entrepreneurship creation.

**Technical Session-III: Developing Appropriate Eco-system for Establishing Rural Enterprises**

39. Agri-graduates (numbering about 40,000 to 50,000) from Indian Council of Agricultural Research (ICAR) system or state agricultural universities may be engaged in agri related rural entrepreneurship.

40. There is a need for documenting and replicating the success stories with potential for job creation. For example, establishing Custom Hiring Centers of farm machineries and equipment at village or town level is a good idea but the provisions for repairing and maintenance of the machineries should be made from the beginning. This requires skill as well as finance support. Similarly, establishing Solar light Refrigeration units in rural areas to increase the shelf life of commodities like fish, vegetables, etc., can be another avenue for job creation.
41. About 75-80% of India’s population resides in non-metros whereas 90% of performing incubators who promote start-ups in the country are metro based which is incompatible with the objective of encouraging rural entrepreneur ship. To make India an entrepreneurial capital, startups need to be based out in rural areas also. Suitable incentives to startups and creation of appropriate eco-system in these centres may be thought of. Private sector should be encouraged to set up incubation centres in rural areas.

42. At times, the policies may be detrimental from the perspective of a farmer. These include many restrictive initiatives such as Essential Commodities Act (ECA), restrictions against storing of goods or exports, etc. The ECA policy was introduced when agricultural production fell short of demand. It is the time that such policies are scrapped for the benefit of the society at large.

43. There is a need to bring about a change in the attitude of producers/exporters and they should treat domestic consumer in the same way as they treat foreign consumer, i.e., the treatment of products meant for domestic market and export market should be same with no differences in the chemical used if at all, hygienic processing, etc. There is a need to create an eco-system which addresses this.

44. Another important aspect for enterprise creation is funding support, particularly the equity funding which is critical to ensure success of any enterprise, and especially for a start-up. While many avenues have been created in the recent past to make credit available to these firms, there is a need to diversify by making angel investors’ seed funding available to them. Provision can be made to encourage deployment of CSR funds as the seed fund of these ventures.

45. Many firms face a challenge in their functioning when they are unable to work closely with their customers. There is a need to create private platforms connecting those firms to global buyers/users of their products and services, which may provide the benefits of market research to them, like the platform called SOSA (South of Salami) in Israel which connects startups to global buyers.

46. For each ecosystem, there are three aspects - macro, meso and micro and these needs to be dovetailed or to be in sync with each other, otherwise system will not work. At a macro level, one has to see as how global things are changing overtime and how the national things are integrating/responding to those changes.

47. There is an inherent bias towards consumers in India by keeping the prices of food articles low and, at the same time, giving subsidy to farmers to reduce their cost of production and enhance viability. As per one estimate, farmers have sacrificed an income equivalent to USD 700 billion on account of these policy biases.

48. There are technologies to increase the productivity, but there is no evacuation system to evacuate the excess produce because market forces are fragmented and weak. Agri-enterprises are not commercially attractive because APMCs do not allow direct purchase from farmers. There is a need to bring in more transparency in the operations of APMC so as to increase farmers’ income.
49. Different surveys including National Sample Survey Office (NSSO) Surveys and NABARD’s NAFIS have been done on wages and salaries. However, it is not clear as to how much of it is coming from working on others’ farm and outside the farm. Wages and salaries need to be decomposed to decipher how much income has been earned through others’ farm and outside farm.

50. There is a need to take a clue from China, the manufacturing hub of the world today, where industrial revolution has started as town and village enterprises (TVEs). For six years (1978-84), they primarily focused on reforming their agriculture. Within six years, they doubled farmers’ real income and halved the poverty. The massive demand for industrial goods came from rural areas which triggered industrial revolution in China.

**Valedictory Session**

51. There is a need to create a market by which the products of SHGs are purchased not only by others but also by other SHG members. These groups need to be integrated into public procurement policy. A portal can be developed where SHGs products can be displayed and information are made available about their availability. Companies and startups can be linked to this portal to help selling the SHG products.

52. There is a need to create an aggregation platform where all rural technologies available from rural innovators, startups, ICAR, etc., are made available so that opportunities are created for young entrepreneurs to use these technologies for business promotion.

53. As far as the question of evacuation of underperforming start-ups from market is concerned, the big and established startups can acquire the assets and the business of smaller startups which are not doing well.
Panel Discussion on ‘Engaging Rural Youth Gainfully’
NABARD’s 38th Foundation Day: 12 July 2019

**PROCEEDINGS**

NABARD celebrated its 38th Foundation Day on 12 July 2019 at *India Habitat Centre, New Delhi* and organized a panel discussion on ‘**Engaging Rural Youth Gainfully**’ on the occasion. During the last few years, NABARD has been facilitating solution seeking policy debate on its Foundation Day on one of the topical themes with a view to provide immediate feedback to government, RBI and those who matter on the subject. Shri Anurag Singh Thakur, Hon’ble MoS, Finance & Corporate Affairs attended the Inaugural Session as the Chief Guest. Shri Debashis Panda, Additional Secretary, Department of Financial Services, Ministry of Finance and Dr Harsh Kumar Bhanwala, Chairman, NABARD also shared the dais with Hon’ble MoS. About 400 participants representing Government of India, RBI, Banks, Agri Startups, FPOs, SHGs, etc., attended the event. The event was divided into 5 sessions: Inaugural session followed by three technical sessions on (i) Developing modern and appropriate technologies and innovations, (ii) Skilling of youth for entrepreneurship and (iii) Developing modern and appropriate technologies and innovations and, finally, ending with Valedictory Session.

**Inaugural Session**

**Dr Harsh Kumar Bhanwala** formally welcomed the Hon’ble MoS, Finance & Corporate Affairs; Additional Secretary, Department of Financial Services, Ministry of Finance and all other invitees to the celebration of NABARD’s 38th Foundation Day.
Dr Bhanwala in his welcome address indicated that NABARD, every year, dedicated itself to agriculture and rural development by celebrating its Foundation Day by organizing a thematic seminar. ‘Engaging Rural Youth Gainfully’ was considered to be the most appropriate theme for this year’s seminar seeing a lot of discussion in various fora on the subject. He informed that ‘Farmers Producers’ Organizations’ (FPOs) and market linkages were chosen as the theme for discussion on the last year’s Foundation Day celebration, which resulted into several policy changes by the government and finally culminated into Union Budget 2019-20 announcement of formation of 10,000 FPOs and this would help farmers, especially the marginal and small farmers, to come together and link their produce to the market and earn remunerative prices for their produce. Of late, the focus has shifted towards FPOs as a mechanism to tackle the challenges originating from small landholding size of Indian agriculturalists.

He added that non-farm sector had gained more importance in supplementing the income of those depending on the agriculture. As per NAFIS 2016-17, agricultural households derived 35% of their income from cultivation and 34% by ‘wages’. Under these circumstances, initiatives aimed at expanding non-farm economy need attention from policy planners. Developing rural infrastructure has been found as an important tool for employment generation in rural areas. Several initiatives like PM Gram Sadak Yojana, MNREGA, and Jal Shakti Yojana for increasing irrigation facilities and drinking water supply, formation of bamboo and honey clusters, etc., have been launched in this year’s budget to spur investment in rural sector, thereby contributing to expanding employment opportunities.

He further added that over the years, NABARD, in collaboration with government, had played an important role in providing quality infrastructure in rural India. Through RIDF, established around 25 years ago, NABARD has sanctioned around Rs 3.46 lakh
crore to State Governments for infrastructure expansion, thereby contributing towards greater market linkages, increasing irrigation facilities, development of veterinary infrastructure and road connectivity and, thus, increasing employment opportunities in rural areas. Gujarat has availed mostly for development of irrigation infrastructure which not only facilitated in increasing cropping intensity to 300% but also in creating employment opportunities. An important aspect of projects sanctioned under this fund is that nearly 90% of the projects are completed in time. Rural roads under RIDF have helped in linking the rural produce, especially in hilly areas, to markets. Keeping this in view, GOI has increased the RIDF corpus to Rs. 28,000 crore last year from Rs. 25000 crore.

He also highlighted three important interventions of NABARD in recent past which were jointly done with the Government and had created impact on income and employment generation. As many as 99 irrigation projects which were lying incomplete since long, were supported under LTIF established with NABARD under PMKSY with a provision of spending of Rs 80,000 crore. Till date, about Rs 70,000 crore has been sanctioned and Rs 34,000 crore has been disbursed towards these 99 projects. Because of this, in as many as 34 projects, the major component of AIBP (Accelerated Irrigation Benefit Programmes) has already been completed. In case of 12 such projects, the water has already reached to the farmers’ field under the component of ‘Har Khet ko Pani’. The second important joint initiative is implementation of Prime Minister Awaas Yojana-Gramin (PMAY-G) under which about 1.25 crore rural houses were planned to be constructed. Under the scheme, 90 lakh houses have already been completed with sanctioned amount of Rs 21,000 crore and disbursement amount of Rs 19,000 crore. Similarly construction of rural toilets is another important initiative in this regard which was taken up jointly with GOI.
Chairman indicated that 48% of income of the country was generated in rural areas. In this connection, he suggested that if the sale of Fast Moving Consumer Goods (FMCG) in rural areas was increased, it would certainly lead to creation of additional employment opportunities in rural areas. He opined that the programme of ‘Doubling of Farmers’ Income’ by 2022 was a step in the right direction and had been appreciated by all. He mentioned that because of good initiatives in the agriculture & allied sector, for the first time, the horticultural production (300 mt) had surpassed the food grain production (280 mt) in the country and also India had become the largest producer of dairy products in the world. However, we still need to reorient our priorities, which should be aimed at increasing the per unit productivity of various agricultural produce. This year’s budget has given a greater emphasis on dairy processing, food processing as well as processing of horticultural crops.

He shared another important initiatives by farmers of Gujarat who were harvesting solar energy as their third crop and has potential of earning additional income of about Rs. 50,000 per year by selling their excess power to grid after using it in their own farm. If many more such alternative opportunities are explored, it will create lot many employment opportunities in rural areas. He suggested that maintenance of solar equipment and requirement of electricians for electric pump sets have great potential for job creation in rural areas. Digital technology like mobile banking has also good potential for employment creation in rural areas with the increasing use of internet facilities. The new idea of e-com has penetrated in rural areas as an important delivery channels in the recent past. We have experimented this idea through a partner in Meham (Rohtak), Haryana wherein about 30 candidates were trained on this aspect and all of them had got some employment immediately. We can consider upscaling this idea in other parts of country as well for creation of rural employment opportunities.

He suggested the idea of developing agripreneur who can be incubated with more care for translating their ideas into action since gestation period of incubation is slightly higher in case of agricultural enterprises. Although ICAR, Indian Institute of Management (IIMs) and State Governments are making good efforts in incubating agripreneur, NABARD too has established two agri-incubation centres at Tamil Nadu Agricultural University and Haryana Agricultural University to nurture budding agri enterprises. NABARD plans to establish more such centers, by collaborating with other institutions such as ICAR. In the past, NABARD used to invest in venture funds. After gaining experience, NABARD has established a subsidiary called NABVENTURES Ltd to manage Alternative Investment Funds (AIFs) to help entrepreneurship generation. NABVENTURES Fund I is the first Fund with a corpus of Rs. 500 crore and a greenshoe option of Rs. 200 crore, of which the NABVENTURES Ltd is the Investment Manager.

With this, Chairman once again thanked Hon’ble MoS for sparing his valuable time, particularly when the Budget session was going on in the parliament.

**Shri Debashish Panda** congratulated NABARD for its 37 glorious years of journey in which it had contributed immensely to the entire rural ecosystem. He highlighted that the recent budget announcement to make India a USD 5 trillion economy required engaging our rural youth gainfully and also other working population who account for about 60% of our total population. He accepted this to be a big challenge but felt that it not impossible to achieve it.
He told that lot many youth wanted to quit agriculture and wished to migrate to urban centers. Reasons for the same may be explored – whether it is the lack of opportunities in rural areas or better opportunities in urban areas. Why agriculture today is not a remunerative proposition to invest in, is another important question the answer of which needs to be obtained.

He added that agricultural landholdings was declining and getting fragmented day by day and majority of these holdings (marginal and small) had not been found viable and were unable to generate marketable surplus sufficient enough to encourage farmers to go to the market. Aggregation can be a solution to help farmers to grow the crops which they should have been growing. Uttar Pradesh (UP) is having the average holding size of just 0.6 ha and is declining over time. Since these land holdings are not sufficient to sustain a family and therefore, institutions like ICAR, State Agricultural Universities, NABARD and KVKs have a great role to play in ensuring viability of agricultural farms and developing a time bound strategy to retain the rural youth gainfully in farm operations. There is also a need to supplement the income of farmers from allied activities, for example, poultry activity which can be promoted in maize growing areas so that a complementary relationship is developed to benefit the farmers.

Shri Panda also emphasized on the need to increase the influence of Fintech companies & startups in the rural areas who, through their destructive technologies, had started shaking the financial eco-system. MSME sector has got a huge potential in rural areas but there is a need to connect various data points viz., documentation of success stories, developing handholding tie-ups, branding of products, arranging marketing tie-ups and e-com tie-ups, etc., in order to provide confidence to banks to provide financial support to entrepreneurs willing to take up off farm / MSME activities.
He added that a lot of investment was taking place in infrastructure sector in rural area through programmes like RIDF, PMAY-G, PMGSY, etc., which provide ample opportunities for engaging rural youths in construction of these infrastructures. GOI and NABARD may consider preparing a roadmap for the same. Similarly, during last five years or so, tremendous achievement is made in the financial inclusion sphere in India which has been duly acknowledged in the World Bank Report ‘Findex’. Today, there are close to 36 crore Jan Dhan Accounts having total balance of about Rupees one lakh crore. These account holders need to be supported in terms of increased financial services especially collateral free loans under MUDRA Yojana with guarantee support for establishing some enterprise in rural areas like handicrafts, carpentry work, motorbike, etc. Digitization efforts through JAM trinity for opening of zero balance account and ensuring availability of social security measures such as PMSBY and PMJBY to rural poor to make them financially included as well as secured, have yielded good results. He opined that since lot of money of rural poor was channelized through banking channels under DBT mode, this money could be used as margin money by banks to extend loans to farmers and other needy people so that their money could be used for more productive activities.

He also emphasized the need for skilling the rural youth of farmer’s family in agriculture and allied activities like dairy, animal husbandry, food processing, and fisheries sector so that farmers got some supplementary income in addition to their income from main agricultural operations. A lot many successful interventions/technologies are available for adoption in rural areas, but there is a need to look for the right kind of partnership to engage rural youth gainfully in the appropriate business models for implementation in the rural areas. NABARD should take a lead in this regard. GOI is willing to provide all possible support including smoothening the regulatory hurdles if it is coming in the way of extending financial and technical supports to create right kind of business environment so that the target of USD 5 trillion economy is achieved in the shortest possible time.

**Shri Anurag Singh Thakur, Hon’ble MoS, Finance & Corporate Affairs** delivered the inaugural address. He felt very happy about NABARD facilitating a debate on a very important theme ‘Engaging Rural Youth Gainfully’ on its Foundation Day.

Before delivering his inaugural address, Hon’ble MoS felicitated five agri-startups out of total 175 such startups promoted by NABARD through 16 Alternative Funds with financial outlay of Rs 230 crore.
As far as infrastructure support is concerned, a number of initiatives have been taken by government and NITI Aayog. At present, 90% of the incubation centres are in urban areas, which is incompatible with the objective of encouraging rural entrepreneurship. In other words, there is an urgent need to establish incubation centres in rural areas to provide support to budding entrepreneurs. Private sector should be encouraged to set up incubation centres in rural areas and the area where it is not viable, government should step in to create requisite infrastructure, both physical as well as digital infrastructure to support startups in rural areas. These include providing co-working spaces, internet connectivity as well as processing units. The enterprises can be charged to use these services. Government can consider setting up one incubation centre in each district in rural areas and government can take some equity stake in those incubation centres. Funding support, particularly equity funding, is critical to ensure success of any enterprise, and especially for a start-up. While many avenues have been created in the recent past to make credit available to these firms, there is a need to diversify towards making the other options, such as angel investors, available to them. If a provision can be made that encourages the deployment of CSR funds into the seed fund of these ventures, it would give a boost to the creation of desired ecosystem in our country.

In so far as conventional businesses or rural SMEs are concerned, processing infrastructure of agri-produces are created in rural areas which can be charged from the users. Another clue can be taken from Israel or America, which have the concept Hon’ble MoS highlighted that with 35 crore youth population in the 15-29 years age bracket, India was the youngest country in the world. Unemployment is the major challenge faced by rural youth, particularly female rural youth. A large number of rural youth lack the skills required for job opportunities in the ever-evolving manufacturing and services sector. This lack of mobility to other sectors has delayed the full structural transformation of Indian rural economy unlike the transformation witnessed in South East Asia and the West where a large chunk of rural youth/population had migrated to the manufacturing and services sectors. He listed out the other challenges being faced by rural youth today which included lack of quality education, lack of adequate skilling opportunities, high dependence on agriculture either for land cultivation or wage-based employment, seasonal and disguised unemployment, low wages/incomes in general, lack of affordable quality healthcare services, low financial inclusion, high formal/informal indebtedness, etc. He opined that while a large section of rural youth might aspire to leave the agricultural sector, they were still employed in it as they lack the skills required for other opportunities elsewhere. Giving this backdrop, he questioned as to how we could reap the “demographic dividend” and adopt a data-driven, localized approach to policy-making to support rural youth, thus, engage rural youth gainfully.

He felt that retaining youth in rural areas and engaging them into some sustainable livelihood activity was certainly a challenge in India, on account of various reasons. Despite a significant decline in contribution of agriculture sector in total gross domestic product, it still provides employment to 48.9% of workforce of the country. And therefore, the central focus of all programmes has been kept as gaon, garib and kisan in this year’s union budget. He informed that now, government would promote big investments in agriculture infrastructure with the support from private sector. It would support entrepreneurs in creating value addition to farmer’s produce including bamboo, honey & timber from the hedges and for generating renewable energy so that the Annadata can also become Urjadata. The proposed scheme of setting up of 10,000 new Farmer Producer Organizations (FPOs) to ensure economies of scale for farmers over the next five years will certainly engage more farmers and stakeholders to agriculture commodity value chains.
Dr. Ashok Gulati, while summarizing the discussion, emphasized on the following points:

For each ecosystem, there are three aspects—macro, meso, and micro—and these needs to be dovetailed or to be in sync with each other otherwise system will not work.

At a macro level, one has to see how global things are changing overtime and how the national things are integrating/responding to those changes. Global things like to integrate more and more even with some frictions from one or the other quarters. But overall, the trade has grown. So, it is not important as what one is producing and in what market it is being produced. But the domestic industry cannot keep producing without looking at the global scenario, otherwise it will collapse.

Second, when one is looking at national policy or national ecosystem, it reminds of Essential Commodity Act. By taking state-wise/commodity-wise data of 17 years with OECD and using 'producer support estimate' methodology which looks into if farmers deliver certain commodities like Essential Commodities Act, no allowing private to store, etc., a study found that such restrictive acts and practices had an inherent bias to protect the consumers. In fact, we have two contradictory policies of keeping prices of food article low, and simultaneously giving subsidy to farmers to reduce his cost of production so that his net income is positive. The 'producer support estimate' revealed that the income of farmers equivalent to USD 700 billion had been plundered through these policies and had been given to the consumers. So there is inherent bias towards consumer in this country. This is continuing since the 1950s and 1960s which should have been stopped long back.

Next point is that there are technologies to increase productivity, but there is a no system to evacuate the excess produce because market forces are so fragmented and weak that remunerativeness of agri-enterprises is missing; for instance, APMCs will not allow anyone to directly buy from the farmers. Farmers have to come to mandi to sell their produce and mandis have become a cartel. The issue is that how to break...

Liberal national policies are required to bestow true benefits upon the farmers. Many initiatives and new provisions have been made in the MSME sector. For the MSME sector, Rs 350 crore has been allocated for 2019-20, under the Interest Subvention Scheme, for 2% interest subvention for all GST registered MSMEs on fresh or incremental loans and this is expected to provide new job opportunities to rural youth. Under ‘Scheme of Fund for Upgradation and Regeneration of Traditional Industries’ (SFURTI), 100 new clusters will be set-up to enable 50,000 artisans to join the economic value chain.

He further added that MSMEs are vital in generating employment, output and exports as this sector contributes one-third to India’s manufacturing output and 45% of exports. According to latest CII report, MSMEs are the second largest employment generator after agriculture, by engaging 12 crore people. Therefore, many initiatives and new provisions have been made in the MSME sector. For the MSME sector, Rs 350 crore has been allocated for 2019-20, under the Interest Subvention Scheme, for 2% interest subvention for all GST registered MSMEs on fresh or incremental loans and this is expected to provide new job opportunities to rural youth. Under ‘Scheme of Fund for Upgradation and Regeneration of Traditional Industries’ (SFURTI), 100 new clusters will be set-up to enable 50,000 artisans to join the economic value chain.

He viewed that, although agriculture was not treated as a very remunerative occupation owing to various challenges it faces, many employment and entrepreneurial opportunities could be created in it through advances in innovation, capacity building, partnership and participatory approach, developing better market linkages and most importantly, by developing a synergy with other sectors of the economy. Besides, there exists huge opportunity in rural areas for the growth of off-farm sector activities. Many initiative by public and private sectors aimed at engaging rural youth are already in place, much more can be planned and implemented.
Further, he added that previously dealing in seed, pesticides, fertilizer and farm machinery were the only potential sectors to employ educated rural youth as far as agriculture sector was concerned. IT enabled services are the new engine of employment growth for urban youth. Similarly, mobile/internet based digital services can be the new engine of employment growth for educated rural youth. Solarization of farms and also switching to solar power for water-lifting, drying, etc., has created a new demand for solar technologies and technicians. New opportunities are emerging in agri-tech, agri-based e-commerce, IT-linked agri-extension, seed technology, biotechnology, farm monitoring, agri/rural fin-tech etc. enabling the educated rural youth to explore new ideas, undertake research and set-up start-ups. The question is: how to make these technologies rural youth friendly?

He also praised the Self Help Group–Bank Linkage Programme (SHG –BLP) which was initiated by NABARD as a pilot project in 1992 and had turned today as the World’s largest microfinance programme with one crore SHGs formed and touching the lives of 12 crore families in rural India. NABARD’s Balance Sheet had increased from Rs 4,519 crore to Rs 4.87 lakh crore during last 37 years, but touching the life of 12 crore rural families had been the biggest achievement of NABARD. He also highlighted the fact that these SHGs were now positioned at such a stage of development that these could be nurtured into business entities by engaging them into sustainable livelihood options. Digitization of transactions undertaken by SHGs can propel them into accessing quicker and faster credit linkages, as it would enhance bankers’ comfort in credit rating/appraisal and sanction. E-Shakti –NABARD’s digitization effort, which covers 100 districts currently, has shown very encouraging results and this can be scaled up.

While speaking on skilling of rural youth for entrepreneurship aspect, Hon’ble MoS indicated that education and vocational skilling needed to be integrated, a practice followed by many countries. In order for youth to fit in with needs of non-farm companies, apart from providing training at ITIs, we need to train them in basic English language skills as well. Right from the school level, exposure to basic English, basic technical knowledge and innovations need to be provided. Therefore, the 2019 budget has focused on imparting new-age skills in areas like artificial intelligence, internet of things, big data, 3-D printing, virtual reality and robotics to equip youth to take up high-paying jobs overseas. Language training is also on agenda of the government to help youth get more jobs to make India the ‘skill capital’ of the world. He felt happy to note that skilling of youth for entrepreneurship was a theme of one of the technical sessions planned on that day.

While talking about developing appropriate ecosystem for establishing rural enterprises, Hon’ble MoS informed that the entrepreneurial ecosystem in India was already considered the third largest and the fastest growing ecosystem in the world. The core tenet of the ecosystems view is—the stronger the ecosystem, the higher the chance of success for firms/enterprises operating in that ecosystem.
He told that there were a large number of agri-based start-ups coming up and we needed to strengthen the rural start-up ecosystem as well to encourage setting up of more rural start-ups by rural youth. Various government agencies are promoting and engaging themselves in capacity building of start-ups, incubators, especially in agriculture and allied activities. However, keeping in view the low technology adoption rate in India, especially in agriculture sector, it is crucial to enable seamless hybridization of relevant technologies by building a suitable distribution model. He expected that the panel would debate on what would be the best way the business models of these start-ups could be made affordable and popularized amongst the target groups. While a slew of measures have been taken by the government in this regard, there is a need to discuss as why the rural youth are leaving the agriculture sector? He also suggested that panel might discuss about the possible encouragements/ incentives, which could be extended to innovators to come out with solutions to the problems being faced in the agriculture sector.

He told that government had already put the training and educational system in place for skilling of entrepreneurs and suggested that the private sector should also come forward in this regard. He wondered whether PPP model can be an effective approach to bridge the gap in agricultural education. Further, there are multiple scholarships/fellowships available in agriculture field for scientists, etc., should India also establish agricultural fellowship which may bring youth back in agricultural field/business and also get engaged in agriculture related R&D. While GOI is supporting the sector in numerous ways, new avenues like crowd funding can be tried in agriculture sector, as the concept itself has been a game changer in the technology space.
Hon’ble MoS opined that it was time to forecast the future of India in 2030 and achievable plans and implementable strategies needed to be put in place to realize the targets set for, including the targets to fight water scarcity, discourage migration of agricultural labourers, rural infrastructure & other market related logistics, etc. On this count, he gave the example of marketing of apple of Himachal Pradesh in Delhi market and told that by the time apple from HP reaches in Delhi markets, apple from across the globe was already there in Delhi market and at a cheaper rate. Therefore, there is a need to develop a strategy jointly by all the stakeholder as to how to help the farmers in the disadvantageous areas like hilly regions and NER to get remunerative prices for their produce through marketing support/e-NAM for various horticultural crops/ flowers grown in open fields as well as poly-houses. Whether some farmer friendly app to help the farmers in getting tips for production technologies and marketing support can be developed in the time to come?

While congratulating NABARD for its excellent work done during the last 37 years and for playing a pivotal role in transforming ‘Grameen Bharat’ to ‘Swarnim Bharat’, he also hoped that the deliberations in the proposed panel discussion would certainly provide some solutions which would help the country to become a USD 5 trillion economy in the shortest possible time and to become one of the four largest economies of the world.

With this Inaugural Session came to an end.
Technical Session 1: Developing Modern and Appropriate Technologies and Innovation

Chair: Padma Shree Prof. Anil K. Gupta, Founder, Honey Bee Network; Coordinator-SRISHTI and Visiting Faculty, IIM Ahmedabad & IIM Bangalore

Panelists

1. Padma Shree Prof Ashok Gulati, Infosys Chair Professor-Agriculture, ICRIER, New Delhi
2. Dr. Ashok Dalwai, CEO, National Rainfed Area Authority, MoA&FW, GOI, New Delhi
3. Shri Anupam Jalote, CEO, International Centre for Entrepreneurship and Technology (iCreate), Ahmedabad
4. Shri Kunal Upadhyay, CEO, Centre for Innovation, Incubation & Entrepreneurship, IIM, Ahmedabad

Prof. Anil Gupta recalled his long association with NABARD, right from its inception, and thus being a witness to many of its developmental initiatives over the years. He underlined the facts that the rural areas had not been benefitted from various innovations and technology led solutions in comparison to urban areas. He went on to emphasize that this day’s forum provided an opportunity to discuss how innovation for and from the grassroots could be brought to social and economic markets and therefore, both social as well as economic innovations were equally important. Many in their life time must have utilized the benefits of social innovations for which they may have paid for. He added that creation of social public goods was fundamental for just and fair society and therefore, one must not focus only on market induced changes though markets were very important. Last summer, during his visit to Gadchiroli, a naxal affected area, he observed no value addition in any form to the commodities produced by the local tribes. He supported the views expressed by the NABARD Chairman & Hon’ble MoS that expanding in-situ value addition for higher income to the farmers was extremely important.
He requested panelists to comment on few challenges (i) how to encourage in-situ value addition which was crucial to ensure higher income for the farmer and insulating him against the fluctuations caused by factors such as market forces or vagaries of climate or by both (ii) the mechanism to take the technological developments being developed by institutions such as ICAR, CSIR to the farmers. He opined that the potential of KVKs network in various districts had not been used optimally. Whether it is possible to make the KVKs a hub to converge all the technology solutions developed by different technology missions, departments of various institutions like ICAR, CSIR and other bio-technology institutions and other private sector players? Can KVKs become demonstration units for various technology solutions? Can we have time-bound plan to put the technology solutions in place? (iii) Can we map the unmet needs of all the districts, particularly the 117 Aspirational Districts, and engage the public sector as well as private sectors to provide solutions to those needs and add value to that? We need to make our fiscal system flexible for our rural/agri start-up and also have to encourage CAs/CSs and their associations to play a facilitating role to help our farmers to set up rural startups. He expressed his happiness over the budget announcement about the formation of 10,000 FPOs. He then invited the comments from the Panelists.
Dr. Ashok Gulati emphasized the following three points:

(i) **Policy support to utilize solar energy as the third crop**: The government has set an ambitious goal to generate 175 Gigawatts (GW) of renewable energy by 2022, comprising 100 GW of solar energy. Keeping this in view, many big players have established solar parks which have blocked land for the next 25 years. It may be an efficient model but certainly not an inclusive model since the farmers, especially small holders, are not party to that. The experiment as demonstrated by Tushar Bhai in Gujarat suggested that farmers could run their pump sets on solar power instead of diesel power and evacuate excess power for income generation.

Dr Gulati told that his idea which was based on global survey was different from these two ideas. To illustrate, in a land area of one acre, 500 solar trees could be installed having a height of about 3.5 metres with enough spacing between them to allow the tractor to pass through. Such solar trees do not affect the productivity of crops adversely and many crops like vegetables, rice, wheat, banana, etc., can easily be grown in the field. No doubt that the provision of solar energy will enable the farmers to cultivate two crops in a year. But the primary gain to a farmer will be in form of the third crop, i.e., taking the excess energy throughout the year after using it for running their pump sets. However, the success of this approach requires appropriate policy support allowing the State Electricity Boards (SEBs) /discoms to purchase the excess electricity evacuated by the farmers after connecting it to grid/feeder. In this approach, some other players/industrialists will have to make investment and the farmers need not invest in it. He informed that a meeting of various stakeholders (including Prof Gulati) held with Government of NCT of Delhi sometime back had come out with an estimate that the farmers would earn an additional income of rupees one lakh per acre, with an increment of 6% per annum for 25 years, if they just allowed the industrialists to install solar trees in their farm lands that too without spending any amount from their own pocket.

(ii) **Allow farmers to choose between organic and inorganic farming**: While the government in this year’s budget has supported the idea of promoting Zero-Budget Natural Farming. On the other hand, fertilizer subsidy of about Rs 80,000 crore is given to farmers every year which is incompatible with this goal of natural farming and it will certainly distort the decision making of the farmers. The better idea would be to distribute the budgeted fertilizer subsidy amongst the farmers on per acre basis which can be transferred through Direct Benefit Transfer (DBT), and let the farmers decide the end use of this amount whether to go for organic or inorganic farming.

(iii) **Policy change on innovations like HTBt Cotton & GM mustard**: Prof Gulati touched upon the role of Herbicide Tolerant Bt (HTBT) cotton in agricultural growth of Gujarat state. He indicated the agricultural sector of Gujarat registered a growth of 8 % per annum between 2002-03 and 2013-14 which was basically by impressive contribution of HTBT cotton. In fact, Bt Cotton is estimated to have provided a national gain of around $ 67 billion in terms of export of raw cotton and savings in imports, etc. Today 15% of BT Cotton area is illegally cultivated because the policy is blocking the legal cultivation. Prof Gulati finally emphasized, that policy must change in order to make innovations happen and adopted.
Innovations like Bt cotton, BT Brinjal and GM mustard are waiting for policy change and if the policy change do not happen then innovations would not become revolution. This is also important in light of the import of edible oils which is mostly produced from GM seeds.

**Dr. Ashok Dalwai** highlighted that the structure of rural economy has undergone a considerable change in the last 10 years, with rural economy no longer being synonymous to agricultural sector. Today the structure of rural economy is described by the presence of agricultural economy, manufacturing economy as well as service economy and it would not be appropriate to say that rural economy is equal to the agricultural economy. However, the agricultural economy is considered to be important in the light of dominance of people engaged in it. Agricultural sector contributes about a third to the rural economy. One way to increase agricultural growth is to redefine the role of agricultural sector by reducing its focus on crop production, though it is important for food security both at household level as well as national level, and encouraging production of those agricultural materials that will start feeding robust agri-processing and intermediate commodities for manufacturing sector.

Further, to reduce the dependence on fossil fuels in the near 100-200 years, there is a need to convert our agricultural economy to a circular economy wherein renewable form of agricultural production is happening. This will require increasing agricultural productivity so that food security of the nation is met, both for human consumption as well as cattle and other livestock population, and the released land can be utilized to produce such commodities which will feed to industry and manufacturing sector. For example, crops like maize and jowar can be converted into as many as 300 other new products. There is a need to recognize that agriculture sector being the primary sector, has potential to trigger better growth in other sectors too and therefore, it needs to be broken into sub-sectors like primary agriculture and secondary agriculture, although the secondary agriculture is still not recognized as an economic activity that can be driven by programme and policies of the government. There is a need to have a separate department for secondary agriculture in Ministry of Agriculture & Farmers Welfare, supported by ICAR and relevant departments, which will start utilizing what is today called ‘by-product’ to convert the main produce to many new products.
For that, there is a need to start developing new technologies to convert ‘by-products’ to other economic product, making arrangements for capital support and also need to start skilling people for that. And for all these, there is a need to create an aggregation platform because many production units are highly decentralized on account of many small holders and, therefore, it is very difficult to bring in the economies of scale in the operations relating to aggregating and deployment of resources. Aggregation itself offers numerous business opportunities for rural youth, whether aggregation of produce at farm level and carry to market, pushing the produce to export platforms, or setting up cottage & village industries.

Since average cropping intensity in India is around 141% and given that a farmer is unable to get engaged in agricultural practices for around 180 days in a year, can there be any plan where farmers can engage themselves on the fallow land during their lean period? They can also be engaged in activities like bee-keeping, mushroom farming, primary processing of agriculture & allied produces. This would, however, require tackling of the associated risks, both at production as well as post-production stage. But there exists opportunity to engage rural youth during both the operations.

Further, to overcome the challenges posed by weak extension system, the Citizen Service Centres (CSC) may play the role of purveyors of taking the latest advances in production and post-harvest system to the field. Youth can be trained on various IT platforms to run these CSCs.

There is also a need to create more number of village markets since many small farmers with lesser marketing surplus may find it difficult to go to APMCs located at a distant place. Further, small cold storages, dry storages, assaying lab and other marketing infrastructures are also to be created so that small farmers can take their produce there, aggregate them and integrate with e-NAM platform or the APMC. There is numerous opportunities in agriculture but it has to be de-risked and monetized as well. Lastly, there is a need to get out of the perception that the agriculture is all about the crop production and it is important to realize the importance of its allied activities like dairy, poultry, fisheries and many more, which offer huge opportunities for rural youth. He summed up by arguing that youth did not want to be seen as labourers. Marrying technology with their labour to make the work more dignified may encourage the youth to adopt initiatives such as poly-houses to allow them to be employed respectfully.

Reacting to points made by Dr Dalwai, Prof Gulati questioned if infrastructures could be made mobile that is, bio-refineries/ phyto-refineries be made mobile to help the farmers as they suffer from both excess as well less production.
Shri Anupam Jalote was of the opinion that profitability of farming could be increased by ushering in technological improvements to enhance productivity. While sophisticated technologies exist dealing with different aspects of agricultural production system, the challenge remains that of attracting the world-class technology providers to innovate solutions to the emerging needs of Indian agriculture. For example, high class censors are available which can tell, based on analysis of photosynthesis data of the field, which pocket of the cropped field will have some problem after a week or so. But these technologies are costly and Indian farmers may not be able to afford these and therefore, it would be difficult to attract rural youth in agriculture who is technology savvy. He gave the example of a world class technology in the form of public call offices (PCOs), which entered in the Indian market some 25 years back and which revolutionised the Indian telecom sector and provided employment and income opportunities to millions of rural youth at that time. This suggests that to get the best world class technologies and apply them in Indian agriculture system e.g., assessing the problems in apple orchards by using drones on chargeable basis. And then creating a chain of entrepreneurs who provide these ‘technologies as services’ to the farmers, will help creating employment opportunities in rural areas. However, the adoption of hi-tech agricultural services can only be encouraged when farmers are incentivized to adopt them, through measures such as DBT conditional on using hi-tech services, otherwise they would not be able to afford the service charges leading to low demand for such services.

The skill development initiatives need to be compatible with making digital India. Given that numerical ability is randomly distributed among the population, a series of game-based aptitude tests may be used to identify mathematical abilities of the people in rural areas and provide some MS Excel based training to these identified people/youth to create ‘data technicians’ in rural areas. This will help in harvesting the demographic dividend in the best possible manner by providing the right type of training to people, matching their abilities.
Shri Kunal Upadhyay argued that today agriculture was at a place where e-com sector was some 10 years back. The amount of investor’s interest in agri-tech today is un-matched which has been helped by the provisions of digital infrastructure in the form of JAM trinity which provides easier access to rural India. The biggest facilitator has been the mobile phone and the transformation of user interface into voice enabled control system in vernacular languages which is providing increasing opportunities to farmers to utilize ICT to expand their business activities.

To enable a better penetration of technology, there is a need of an aggregator to take the technological developments to the farm through a suitable franchise model. KVKs may be mandated to play the role of a master franchise responsible to identify innovations that can be replicated by the masses. Technology need not be significantly differentiated. What is needed is a sound business model and it should be acceptable to farmers. The future lies in developing phone-based solutions and taking them to masses to incentivize solution of local challenges of production, primary processing, etc.

Shri Anil Gupta summarized the discussion in following points:

Solutions are needed to control three fundamental sources of inefficiency (a) developing smart agricultural machinery (b) developing apparatus such as censors to encourage precision agriculture to apply need-based fertilizer and micro-nutrients, and (c) solutions to flood irrigation and to avoid wastage of water. Plants need moisture and not water. NABARD may take lead in finding innovation/technology based solution to these basic problems relating to agriculture. This also needs policy support and direction as well.

To encourage bio-economy, NABARD will have to integrate agricultural research, industrial research and bio-technological research so that many new products can be developed from by-products/agri-wastes by using phyto-refineries. This will boost farmer’s income to a great extent.
Crops grown in different land have different nutrients. There is a need to market them appropriately in the form of functional foods to enable farmers to derive price benefits from them. For example, crops grown in many rainfed regions are rich in Boron which can be marketed accordingly. Finally he concluded by emphasizing that we needed an impatient India, an inclusive India and an innovative India.
In his opening remarks, **Shri G K Pillai** emphasized the need for creating infrastructure such as grading facilities in order to expand the online trading of agri commodities. The provision of such infrastructure will provide a fillip to the aggregator model in agriculture.
However, successful aggregating models at national level cannot be implemented in rural areas as it is and there would be a need to customize them to suit to the requirement of the rural areas. He further emphasized that in order to develop the skill-set of the rural youth in the most effective manner, it is important to bear in mind the following points: (1) many of the youth in rural areas are having some skill in different occupations such as handloom, handicrafts, etc., but there is a need to upgrade the existing skills of rural youth and complement it by expanding their market access, and (2) skill development of individuals should be capability-based and focus should be beyond agricultural sector to include courses on data analysis, paramedical fields like nursing, etc. With these opening remarks, he invited the panelists to share their thoughts.

**Dr W R Reddy** stated that various initiatives had been taken by the Government of India to expand the skill-set among the Indian population, especially the youth. Rural India offers good opportunities in agriculture but young generation wants to move out of it and looking for alternative opportunities.
He suggested the following points to make this process more effective:

(i) Skill development for wage employment has made some progress, but the focus needs to be shifted towards skill development for entrepreneurship creation. Its success depends on identifying the locally relevant sectors that can provide entrepreneurship opportunities. In doing so, it is imperative to relinquish the top-to-bottom approach presently being followed and adopt bottom-to-top approach. This requires skilling and the enabling rural youth to provide solutions to local problems by encouraging entrepreneurship. Next step would be to promote aggregation and assuring connectivity to markets. The question is: how to create culture of promoting entrepreneurship.

(ii) The next step involves nudging the rural youth towards adopting local entrepreneurship. It requires aligning the schemes to the aspirations of rural youth and making the diverse set of schemes within the reach of the rural youth. Convergence of efforts of different institutions engaged in skill-development initiatives may provide the necessary synergies.

(iii) One example of bottom-up approach is the integrated bio-gas enterprises. A significant proportion of rural households have adopted the LPG as the cooking fuel. However, there is a potential to replace LPG by bio-gas. The supply of bio-gas can be increased by utilizing the locally available organic matter in villages, such as animal waste product. It is estimated that there is a scope to produce 11 million tonnes of LPG equivalent bio-gas and 4 million of green jobs. Today about 23 million tonnes of LPGs are consumed every year and it is possible to replace 50 percent of that by bio-gas. Bio-gas creation can be adopted as an enterprise and about 4-5 youth per village can easily take-up this activity and each of them can easily earn an amount of Rs 20,000 to Rs 25,000 per month. Further, plenty of options other than bio-gas enterprises are available in rural areas. However, the challenge lies in making the work more dignified by appropriate use of technology. The bio-gas production can be aggregated on the line of hub and spoke model and filled bottles can be sold like LPG by the aggregators. As far as financing is concerned, the entrepreneurs can be provided interest free capital without any subsidy in any form. NABARD can play an effective role. Gram Panchayats can be roped in to play a pivotal role to identify the geographical localities, the youth and the activities keeping in view various developmental and business initiatives available for rural areas and link those initiatives with various support models of the government. However, there is a need to create an entrepreneurial eco-system in rural areas for that.

Smt. Surekha Marandi made the following observations:

i) Capacity building of the youth is important for the country. However, in our country consisting of 26% of the population of 1.2 billion in the 19-39 age group, only 4.8% have been skilled. Only 18% of these get placed and this proportion is even lower in rural areas at 7%. Need of the time is how to train the people to get a job.
Smt. Surekha Marandi

ii) With labour market undergoing fundamental changes, a change in curriculum of schools is imperative, with an increasing emphasis on vocational courses. At present, vocational training is totally missing from school syllabus. Restructuring school education becomes important since a significant proportion of the population discontinues education after school.

iii) There is a need for skill mapping in the country. Expansion of skill development framework in the country will get a boost with the creation of skill development indicators, since it would facilitate laying down of mass skilling programme. Today there are opportunities in the areas of drone, modern practices of farming, other rural activities, etc.

(i) Ministry of MSMEs is in the process of setting up Entrepreneurial Development Centres. Their success will depend on the existing skill mapping framework, based on the fact that the skills required would be different in different regions. For instance, skill for apple processing in Himachal Pradesh and sugar & cotton in Maharashtra would be desired but may not be in demand in other states. Skills are required for dealing with GI products.

(ii) There is a need for better coordination between industry and academia to ensure the skill development is as per requirement. Of many government programmes, skill development oriented ones should focus on business related services such as business counseling and drafting business proposals, along with exposure trips for budding entrepreneurs. There is a need to have some setup that can take it up on a mission mode and be promoted on PPP model, or any other model. Even the industries willing to absorb youth can come and do the mentoring of youth getting training in such establishments.

Shri Sanjeev Asthana’s arguments can be summarized in the following words:

The fulfillment of aspirations of rural youth is dependent on two related aspects: labour/job market and entrepreneurial growth. Understanding rural economy is extremely important. Studies reveal that two third of rural economy is not really
agriculture although 75% of rural youth are engaged in agriculture directly or indirectly. The need of the hour is to provide alternative sources of employment to rural youth to keep them gainfully employed, particularly during the lean agricultural season. Further rural economy can be divided into traditional agriculture i.e., cereal based economy, pulses/oilseed based and high value agriculture like honey bee, fisheries, poultry, bamboo and other important emerging activities. Not only the income from high value activities is almost four times of that from cereal economy but it also absorbs more labour per acre of land. And therefore, high value agricultural sector will hold the key for future growth of agricultural sector, for it translates into higher income as well as higher employment.

There are some important issues which need attention:

i) Convergence of initiatives is required to benefit from the synergies arising out of converging policies, infrastructure and other resources at the ground level. The success of policies requires that they are formulated after conducting extensive research at the ground level. In other words, gram panchayats, block-level and district level institutions need to play an important role in designing the policies based on local needs. This will facilitate building up an architecture required for harnessing entrepreneurship.

ii) Second factor is ‘technology’, both in digital form or in physical form. Lot of smart technologies are available which can be easily adopted by rural people; for instance, smart farm equipment can be used but there is a need to learn how precisely these technologies can be used at the ground level and therefore skill upgradation is required. For this, relevant agencies are to be roped in to start building up an ecosystem which support the working of these experiments.

iii) Another important issue is that how does business and the financial institutions get together. It is to be seen that how every single rupee spent on skilling and developing entrepreneurial opportunities is made use of.
Shri G R Chintala pointed out the dichotomy that existed between skilling and entrepreneurship – all the skilled people were not necessarily entrepreneurs and all the entrepreneurs had not been formally skilled. Today, there are many training programmes where expectations of the participants are not fully met as they expect to learn the latest technologies/interventions available in the field as compared to what is taught in the classroom.

While there exists more than 500 RSETIs and nearly 10,000 other institutions imparting vocational training to youth, different components of training address primarily the traditional areas which are not much in demand, of late. They need to be modified suitably to cater to the aspirations of youth. Infact we are dealing with Generation –Z youth who are born with mobile LQKDQGFRPSXWHURQWKHODSDQGÀLJKW in their hands. In rural areas, there is hardly any difference in the aspirational level; a farmer’s son has also got the same type of mobile using same set of app being used by his urban counterparts. If that is the case, then are we really able to design the programme needed by them? Today a lot of technological disruptions is happening but skilling programmes are not frequently updated to accommodate these disruptions, although a plethora of agencies are conducting many programmes every day but it appears that they are more concerned with the numbers without looking at need of different programmes.

Mere provision of training may not be sufficient to benefit the youth. It needs to be complemented with other support, including handholding support, facilitating credit linkage to ensure a translation of skill development into entrepreneur creation.

Another important area is entrepreneurship. With only a small fraction of start-ups succeeding, attention needs to be paid to provide the necessary training, even to such entrepreneurs with the objective of helping them to face their challenges.

The development of training modules needs to take into account the disruption likely to be caused in the coming years. This includes the massive possible unemployment resulting from structural changes such as conversion of petrol and diesel vehicles into electric vehicles. Announcement has already been made, but are we preparing ourselves to cope up the situation? How quickly we are going to design a training
programme on repairing electric motor vehicles and other related requirements?

Enhancing farmers’ incomes requires the development of industrial sector, so that the disguisedly unemployed workers in the agricultural sector are transferred to the secondary sector and be gainfully employed. It is estimated that if we want to achieve the target of doubling of farmers’ income, we need to evacuate at least 300 million people from the agriculture.

Finally, there is a need to assess what new kind of job opportunities are emerging, what type of trainings would be required keeping in view the profile of the aspirants of such jobs. NABARD supports a lot of training programmes through RSETIs, REDP, MEDP, etc. But a major push has to come from the government.

Shri G K Pillai, summarized the discussion and put forth the issues discussed by panelists:

The question is as to how to sustain the existing employment level in rural areas. Skilling of workforce is required not only to provide the ever-increasing workforce with new jobs, but also to help them sustain their present jobs. This is especially true with some of the traditional industries such as textiles, leather, brassware, glassware, carpet making, etc., as these sectors have already engaged lakhs of people in various activities. But since new developments are taking place in these sectors, the people are also losing jobs because the skilling to sustain these jobs are not fast enough.

Generating jobs in the non-farm sector is of utmost importance. In a developing country like India, the role of sectors, such as tourism and home stay in Kerala & Laddakh, in generating low-skilled quality employment cannot be overemphasized. The success of this approach requires the development of required infrastructure in the form of airports, roads, etc. It has to be studied as to why a small country like Spain entertains 50 million tourists and India attracts just 10 million tourists a year. This suggests that the infrastructure needs to be upgraded to attract tourists to India not only for sustaining the current employment but also to create new jobs in the sector.

School education needs to be revamped and vocational courses are to be introduced in the school curriculum. In Kerala, about 32 lakh non-keralites are working because people from Kerala have migrated to Gulf and therefore there is shortage of labour in the areas of plumbing, carpentry, etc.

Another point is that in-situ value addition is absolutely essential in agriculture sector. Also, there is a need to have local variation in the skill. Finally, it may not be required to have a very high level of skill for many jobs but a right kind of attitude is must. To conclude, opportunities for employment exists in the country but a holistic plan needs to be prepared, which may provide right kind of skill to right kind of person for right kind of job.
Shri Ch Srinivasa Rao explained that many farmers are leaving farming activity and looking for alternative job opportunities elsewhere. He opined that regular jobs in other sectors provide guaranteed income every month but the same is not true with agricultural activities. The agriculture sector is important from both food security as well as from nutritional security point of view and therefore, retaining youth in agriculture is very important. It is felt that awareness has to be created about rural entrepreneurships. About 40 to 50 thousand agri-graduates are coming every year
He put forth four examples, each raising some issues concerning agriculture sector.

(i) **Custom Hiring Centers**: About 150 custom hiring centers of farm machineries and equipment have been established in different villages of 150 districts of the country. Initially it did well but the repair and maintenance of the machineries was an issue which required skill as well as finance, although some fund for the same had been given to the centres.

(ii) **Solar Light Refrigeration**: It is an emerging area and can help rural entrepreneurs to generate good income as temperature goes up to 45 degree in some part of the country. In solar fridge, if temperature is maintained at zero degree then fish shelf life increases to 15 days and if temperature is kept 15 degree, shelf life comes down to 2 days. Therefore, infrastructure creation in rural areas is essential for engagement of youth in rural areas.

(iii) **Value Addition to Agricultural Produce**: preparation of ‘turmeric chikki’ from raw turmeric by women farmers was attempted in Assam and this had provided some engagements to rural youth. Again, infrastructure, including rural solar refrigeration, needed to be created to give a fillip to in-situ value addition.

(iv) **Bio-Gas Plants in Rural Areas**: This was experimented in some areas and was found quite useful as cooking gas and simultaneously preparation of vermi-compost for high value crops like vegetable, etc.
Shri C M Patil indicated that about 75-80% of India’s population resided in non-metros, whereas 90% of performing incubators who promote start-ups in the country were metro based. If startups are not brought to rural areas, then country cannot become entrepreneurial capital. Metro-based startups cannot offer good solution to non-metro areas. It is the population living in non-metro centres who needs to be incentivized towards venturing into entrepreneurial activities through creation of appropriate eco-system in these centres. So whether it is possible to create an entrepreneurial eco-system in rural areas?

There exist plenty of opportunities for entrepreneurial activities in India. The country faces many challenges and solving such challenges presents an opportunity to establish a sustainable business model around that problem.

One of the reasons for failure of entrepreneurial ventures is the inability of entrepreneurs to work with their customers. This weakness is likely to continue if agri-entrepreneur are based in metro cities. To establish sustainable business, entrepreneurs need to work with their customers. Agri-startups need to be linked to market. NABARD can play a role in achieving this as it has already helped establishing few incubators in the country. Can NABARD help startups to reach to markets through various interventions like FPOs, etc.? NABARD has ability and capability to play that role. We have to ensure that entrepreneurs reach the incubators.

It is also important to make youth aspirational to develop them into entrepreneurs by measures such as demonstrating the success stories of other youngsters. Another important issue is that while expanding the availability of financial support, it may require the support of angel investors for agri-startups, although India does not have many angel investors. It may be useful if the people in neighbouring eco-systems are encouraged to provide a small amount for seed funding to invest in early stage start-ups without looking at income in the initial stages, particularly in rural areas.
Shri Jinesh Shah opined that farmers were the biggest entrepreneurs because they were managing the most risky enterprise of farming. They make investment in the early part of their business by availing credit. They face risk from climate point of view, risk related to government policies (e.g., export related to control inflation), market risk, etc. The other sectors see a high growth in the salaries of their employees, whereas farmers do not even realize 2% increase in their income per year. Can we work towards linking the produce of farmers to the market to remove some of the uncertainties related to marketing? Establishing an appropriate ecosystem for entrepreneurship includes designing appropriate policies for the farmers is necessary.

However, at times, the policies may be detrimental from the perspective of a farmer. These include many restrictive initiatives such as Essential Commodities Act (ECA), restrictions against storing of goods or exports, etc. The ECA policy was introduced when agricultural production was lesser than the demand. Today we are surplus in agri production and then why this act continues to stay? NABARD should approach government and get things right for the farmers.

Indian agriculture is characterized by small land holdings and have small marketable surplus and, therefore, farmers cannot take his produce to distance place for storage e.g., at district headquarters. Because of that, middleman or village level aggregators take advantage of the situation and pay less price than that prevailing in the market. Therefore, there is a need to develop decentralized farmers centric infrastructures. Agri-infrastructure needs to be built targeting the small and marginal landholdings. This means that we need to create village-level storage infrastructure, rather than at block-level or district-level. There is a need to encourage decentralized storage and processing of commodities. Today, agri raw material is produced in the rural areas and comes to urban centre for processing and then 60-70% of that goes back to rural areas as finished product. Government and private sectors have to work together to ensure that some processing infrastructure is created in rural areas itself, although the private sector has not delivered much in this regard.

Another important issue is that we need to allow the market forces to work well. Whenever there is an inflation, we ask farmers to sacrifice. Why can consumer not pay a little more when there is a price rise as there is always an income rise for them?
Shri Rajesh Sinha was of the view that what we do is based on our basic assumptions. The first basic assumption regarding agriculture & allied sector says that we do not treat our domestic consumer in the same way as we treat the foreign consumer when we export our products. We need to create an eco-system which takes care of these differences. While this strategy may have some merit, it is crucial that Indian consumers are not ignored. In fact, they need to be treated at par with international buyers since many Indian consumers are willing to pay higher price for high quality commodities. The success of an industry requires that the whole ecosystem supporting that industry is established simultaneously, rather than in pieces. This has been illustrated in case of grapes for export market versus potato for domestic market. There should be similar treatment of products meant for domestic market e.g., no chemical, hygienic processing, etc. Similarly, we as consumer treat imported products like apple better and pay higher prices even though it is 20 days old but we do not pay the same price to our home-grown products which are even fresh.

The power of PSUs which fuelled huge job growth in the manufacturing sector in the country which was based on the creation of whole ecosystem in the form of IITs, IIMs, ITIs, etc. But today services are taking different shapes, and therefore there is a need to modify the role of these institutions to satisfy the changing needs of the various sectors.

He gave the example of Operation Flood that succeeded because of a well-defined ecosystem in place and the institutions like IRMA to support that.

We need to create globally competitive and locally relevant markets. He gave the example of NCDEX which has got a well-defined system. Lastly, creation of policy in itself is not sufficient. We need to create an ecosystem down below to facilitate policy to work well. Formulation of well-researched policies has to be complemented with their efficient implementation.
Shri Rajesh Ranjan added that the creation of an appropriate ecosystem requires the integration of different components, viz., entrepreneurs in terms of number of people involved in it, infrastructure support to startups as the new age business as well as to conventional business system, funding aspects in form of both equity and credit and, lastly, the market linkages both for domestic and the export market. He touched upon the steps required for each of these components.

As far as infrastructure support is concerned, a number of initiatives have been taken by government and NITI Aayog. At present, 90% of the incubation centres are in urban areas, which is incompatible with the objective of encouraging rural entrepreneurship. In other words, there is an urgent need to establish incubation centres in rural areas to provide support to budding entrepreneurs. Private sector should be encouraged to set up incubation centres in rural areas and the areas where it is not viable, government should step in to create requisite infrastructure, both physical as well as digital infrastructure to support startups in rural areas. These include providing co-working spaces, internet connectivity as well as processing units. The enterprises can be charged to use these services. Government can consider setting up one incubation centre in each district in rural areas and government can take some equity stake in those incubation centres.

Funding support, particularly equity funding, is critical to ensure success of any enterprise, and especially for a start-up. While many avenues have been created in the recent past to make credit available to these firms, there is a need to diversify towards making the other options, such as angel investors, available to them. If a provision can be made that encourages the deployment of CSR funds in to the seed fund of these ventures, it would give a boost to the creation of desired ecosystem in our country.

In so far as conventional businesses or rural SMEs are concerned, processing infrastructure of agri-produces are created in rural areas which can be charged from the users. Another clue can be taken from Israel or America, which have the concept of grant or loan to the enterprises/startups. When unit succeeds and reaches a threshold business volume, then grant can be converted into a loan. We need to come out with sustainable funding ecosystem to support budding enterprises.
Market research carries immense importance for start-ups. Many such firms face the challenge in their functioning since they are unable to work closely with their customers. There is a need to create private platforms connecting these firms to global buyers/users of their products and services. The platform called SOSA (South of Salami) in Israel connects startups to global buyers and many lessons can be drawn from this.

However, not much success stories about startups are there to tell. There should be an exit model for investors in the startup funding, e.g., Flipkart has been sold to Walmart. This will motivate youth to get into entrepreneurship even with limited resources.

**Dr. Ashok Gulati**, while summarizing the discussion, emphasized on the following points:

For each ecosystem, there are three aspects - macro, meso and micro, and these needs to be dovetailed or to be in sync with each other, otherwise system will not work. At a macro level, one has to see as how global things are changing overtime and how the national things are integrating / responding to those changes. Global things like to integrate more and more even with some frictions from one or the other quarters. But overall, the trade has grown. So, it is not important as what one is producing and in what market it is being produced. But the domestic industry cannot keep producing without looking at the global scenario, otherwise it will collapse.

Second, when one is looking at national policy or national ecosystem, it reminds of Essential Commodity Act. By taking state-wise/commodity-wise data of 17 years with OECD and using ‘producer support estimate’ methodology which looks into if farmers are allowed to get the best price because of different restrictions like Essential Commodities Act, not allowing private to store, etc., a study found that such restrictive acts and practices had an inherent bias to protect the consumers. In fact, we have two contradictory policies of keeping prices of food article low, and simultaneously giving subsidy to farmers to reduce his cost of production so that his net income is positive. The ‘producer support estimate’ revealed that the income of farmers equivalent to USD 700 billion had been plundered through these policies and had been given to the consumers. So there is inherent bias towards consumer in this country. This is continuing since the 1950s and 1960s which should have been stopped long back.

Next point is that there are technologies to increase productivity, but there is no system to evacuate the excess produce because market forces are so fragmented and weak that remunerativeness of agri-enterprises is missing; for instance, APMCs will not allow anyone to directly buy from the farmers. Farmers have to come to mandi to sell their produce and mandis have become a cartel. The issue is that how to break that. All these things reflect on the income of the farmer.

Liberal national policies are required to bestow true benefits upon the farmers. Many of the present day farm policies contain ‘consumer-bias’ and limit the returns to farming. Such policies have worked in favour of Chinese economy well, allowing it to produce more output than India with even half the average size of holding of India. They produce three and half times more agricultural output than us with lesser Gross
of the present day farm policies contain 'consumer bias' and limit the returns to farming. Such policies have worked in favour of Chinese economy well, allowing it to produce more output than India with even a half the average size of holding of India. They produce three and half times more agricultural output than us with lesser Gross Cropped area (198 million ha of India Vs 168 million ha of China). India can produce more than that not only for itself but for whole south Asia. There is a massive force waiting to be exploited but that would depend upon a suitable policy ecosystem. We have invested more on increasing production but not enough to linking production system to marketing system. And the increased agricultural incomes can potentially spur industrial growth.

In 2012-13, 60% of income of agricultural household was coming from agriculture & livestock and 32% from wages and salaries. Regarding wages and salaries, we are not sure how much of it is from working on others’ farm and outside the farm. In 2015-16, NAFIS data showed a massive decline in share of income from agriculture and livestock from 60% to 43% with a simultaneous increase in the share of wages and salaries from 32% to 50%. It could be on account of the fact that 2016-17 was back to back a drought year and therefore, share of agricultural income declined drastically as people had to move temporarily to get some non-farm job. Wages and salaries need to be decomposed as how much income from other’s farm and how much from outside farm.

We must remember that in China, the manufacturing base/ hub of the world today, the whole of industrial revolution has started as town and village enterprises (TVEs). For six years, 1978-84, they primarily focused on reforming their agriculture. Within six years, they doubled the farmer’s real income and halved the poverty. The massive demand for industrial good came from rural areas which triggered the industrial revolution in that country. We cannot have industrial growth when there is no demand from rural areas and agriculture is not doing well. We have to understand the entire development theory and the entire ecosystem.
Shri G R Chintala summarized the major points emerging from the discussion during inaugural session as well as three Technical sessions. Prof Anil K Gupta, Shri Anil Bansal and Shri G R Chintala unveiled the ‘Status of Microfinance 2019’ annual document prepared by MCID, NABARD.

Shri Anil Bansal complimented NABARD saying that nothing could be better than organizing a seminar on the foundation day.
He praised the excellent quality of debate that took place in all the three technical sessions. In Public Sector Banks, foundation day is celebrated by organizing cultural evening and customers and staff are invited with family to rejoice the celebrations. NABARD carries forward the agenda of government as announced in the budget very intelligently and in a very dynamic way. It has got a very dynamic Board too, which supports all the good works done by NABARD because of its credibility which has touched the lives of crores of the people of the country. He also complimented Chairman of NABARD for organizing a wonderful seminar on a very relevant theme.

Prof Anil Gupta unveiled a book on compilation of 70 success stories regarding constructive contribution of 70 different interventions made by NABARD’s District Development Managers (DDMs) from 70 districts of the country. Shri Anil Bansal and Shri G R Chintala also joined the book unveiling event.

Prof Anil K Gupta expressed his happiness over the constructive discussions which took place during the three technical sessions. One thing that has clearly emerged from the discussions is that people are ready to accept the changes, and direction and magnitude of change have showed the velocity in the recent times. He shared his experience of his association with NABARD’s initial experiments with DDMs. He recounted how the Salem DDM’s support to farmers in those days helped farmers to harvest high density Casuarina plantation in six years which not only gave better income but saved six years of the farmers as normally Casuarina plantation used to mature after 12 years. In that connection, he hoped that this compilation of 70 interventions by NABARD would certainly inspire everyone and replicate it to the benefit of a larger number of farmers. He also opined that the concern of how to take the technology to rural areas was genuine and should be addressed to with all seriousness. While talking about the other book on microfinance released today, he expressed that there was a need to create a market by which the products of SHGs were purchased not only by others but also by other SHG members. These groups need to be made the part of public procurement policy. He also suggested to everyone to take a resolution to purchase at least few items prepared by SHG members henceforth. A portal can be developed where SHGs products can be displayed and information is made available about their availability. Companies and startups can be linked to this portal to help selling the SHG products. The second thing which can be done is to
create an aggregation platform where all rural technologies available from rural innovators, startups, ICAR, etc., are made available so that opportunities are created for young entrepreneurs who can use these technologies and use those for business promotion. On the issue of exit from the market, he suggested that big and established startups could acquire the assets of business of smaller startups which were not doing well. He ended by saying that innovators were very simple so there was a need to help them to get the intellectual property rights of their innovations and also to mobilize the risk capital for their business. NABARD should help in this regard. He suggested that we should not talk about equity funding to startups. We may consider giving them the hybrid product involving equity support as well loan component. Startups should get collateral free loans on simple terms without any hassle. He suggested that SHG members, young entrepreneurs and other progressive farmers who attended the Foundation Day’s programme should be given an opportunity next time to participate in some sort of dialogue so that they could share their ideas for their betterment. At the end, he assured the participants that NABARD understood their heartbeats more than anyone else did and cared for them all.

The event ended with Vote of Thanks proposed by Shri Satyajit Dwivedi, Chief General Manager, Corporate Planning Department, NABARD.
Published by: Shri N P Mohapatra, Chief General Manager, Department of Economic Analysis & Research (DEAR), NABARD, Mumbai

The Recommendations & Proceedings of the Panel Discussion on ‘Engaging Rural Youth Gainfully’ organized on the 38th Foundation Day of NABARD- 12 July 2019 has been prepared by Dr Gyanendra Mani, General Manager & Shri Nikhil Bhardwaj, Assistant Manager, DEAR, NABARD, Mumbai