





Emerging trends in Marketing of Fruits and Vegetables

Feed The Future India Triangular Training programme

16th November

To

30th November

2016





Feed The Future India Triangular Training Program

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"Emerging trends in Marketing of Fruits and Vegetables"

16th to 30th November, 2016, CCSNIAM, Jaipur, India

REPORT

BY

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Feed The Future India Triangular Training (FTF ITT) CCS National Institute of Agricultural Marketing

(An Organization of Ministry of Agriculture and Farmers Welfare, Govt. of India)

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We thank NIAM staff and service providers for their cooperation.

Dr. Hema Yadav and Mr. Shanmukh Sagar K.







ABOUT THE INSTITUTE

CCS NATIONAL INSTITUTE OF AGRICULTURAL MARKETING, Jaipur, India



CCS National Institute of Agricultural Marketing has been engaged in capacity building and skill development programmes for various national and international organizations through institutional linkages.

It is the only national level Institute of its kind set up at the recommendation of Food and Agriculture Organization (FAO), in August 1988 to escalate the agricultural marketing system in the country to a level where it can go hand in hand with the production and market sentiments. It is an autonomous body under the aegis of the Ministry of Agriculture and Farmers Welfare, Government of India.

The Institute offers specialized training, research, consultancy, education and policy support in the field of agricultural marketing.







1 INTRODUCTION

During the state visit of U.S. President Barack Obama to India in November 2010, the U.S. and India announced a new agriculture partnership, the "Evergreen Revolution", to address global food security. The effort includes proposed triangular cooperation adapting technological advances and innovative solutions to address food security challenges in Africa. This triangular cooperation would explore an initial focus on three pilot African countries, with potential to expand throughout the African continent in coming years.

CCS National Institute of Agricultural Marketing, Jaipur has organized a training programme on the topic "Emerging trends in Fruits and Vegetable Marketing" from 16th November to 30th November 20-16 at CCSNIAM, Jaipur under the Feed The Future: India Triangular Programme.

1.1 RATIONALE

Fresh produce markets often involve much higher risks, with the corresponding for higher rewards. Changing demographic, Innovations in distribution and technology, forward distribution, changing legal environment, of international policies, food safety issues, and health concerns create new challenges and new opportunities in this sector. There are major opportunities for small farmers for driving vigorous growth in national and regional market demand for food by adapting and integrating with supply chains.

Africa has the highest urban population growth rate of any developing area, currently 3.6% per year and projected to remain above 3% through 2030. Urban populations are forecasted to grow about 160% through 2040, far outstripping rural growth and pushing the urban population share above 50% (United Nations, 2007). Rising incomes will multiply the impact of growing populations on marketing systems.

One of the biggest challenges for Africa and Asian governments over the next 20 years will be to gain economic growth to achieve an effective mix of public- and private investment that allows these supply chains to adapt to these rapidly changing consumer demands and contribute to an inclusive growth process. Fresh fruits and vegetables stand to be an important winner in this growth. The rapid urbanization increases spending on fruits and vegetables and leads to emergence of consumers demanding healthy, convenience and processed food. A wide array of opportunities to add value through sorting, grading, packaging, canning, slicing and dicing, and production of juice, sauces,

preserves, and inputs to other food processing activities is what supports the responsiveness of fresh produce expenditures to rise in income.

1.2 OBJECTIVES

- Build capacity of officers, executives and managers in the area of marketing of fruits and vegetables by bringing an understanding of market trends and new developments
- Bring awareness about the opportunities and challenges in marketing of fruits and vegetables so as to enrich market channels.
- Inform about online marketing and application of IT Tools for marketing of fruits and vegetables so as to design projects and applications to avail these opportunities.
- Provide exposure to best marketing practices in ensuring food safety, managing supply chains and value addition

1.3 PROGRAM GOAL

The training programme on Emerging trends in Fruits and Vegetables was designed to provide understanding of new trends in marketing of fruits and vegetables so that the producers and marketers in Africa and Asia can be prepared to face challenges and participate in emerging opportunities to enhance income.

The programme aims to build capacity of the participants on the areas related to global trends in F&V marketing, understanding the food safety and quality requirements, wholesale and retail formats, application of technology in marketing and certification, designing supply chains for different requirements, enabling farmers to participate in profitable value chains, creating conducive environment for investment and entrepreneurship development.

1.4 DESIGN OF THE PROGRAMME:

The programme is designed around the following themes:-

- Consumer demand and market trends
- Food safety and quality and traceability
- E marketing and alternative marketing system
- Wholesale, Retail, and Hyper market
- Aggregation models and producer organizations
- Fair trade and marketing of organic produce
- Value addition and packaging
- Supply chain management and Logistics
- Branding, segmentation and consumer behavior
- Marketing Infrastructure
- Storage and Cold Chain Management
- Agri-preneurship and Innovations in marketing

2 PARTICIPANTS PROFILE

The programme was attended by 27 participants from 9 countries of Asia and Africa (three each from Liberia, Kenya, Malawi, Botswana, Mozambique, Afghanistan, two from Mongolia and four from Cambodia). Out of these 14 were women participants. The executive belonged to diverse working areas as Chief Horticulture Officer, Principal Agriculture Officer, Senior Marketing Officer, Agriculture Economists, Officer of Department of Planning, Economist on Vegetable, Professor from University, Rural Extension Service, Technical Officer, Agronomists etc. representing public, universities and private organizations in partner countries. Out of 27 executives, 15 women executives participated in the training program. Complete list of Executives is enclosed at **Annexure-I.**

(Participated Countries)			
1	Afghanistan		
2	Liberia		
3	Malawi		
4	Botswana		
5	Cambodia		
6	Ghana		
7	Kenya		
8	Mongolia		
9	Mozambique		

INAUGURATION

The U.S. Ambassador to India Richard R. Verma inaugurated the third U.S.-India triangular training on "Emerging Trends in Fruits and Vegetable Marketing" at the CCS National Institute of Agricultural Marketing (NIAM) in Jaipur on 17th November 2016.

The U.S. Ambassador Verma emphasized the United States and India's commitment to work together to break the vicious cycle of poverty and hunger.

His excellency Richard Verma



"The training at NIAM will train participants on areas related to global trends in fruits and vegetable marketing, understanding food safety and quality requirements, and how to use technology as an enabling force. Collectively, these strategies have the potential to create an environment conducive to investment and entrepreneurial development," he said.



His Excellency Richard Verma with FTF ITT participants, Team NIAM and Team MANAGE

Dr. Irina Garg, Director General, NIAM



- •Dr. Irina Garg, Director General, National Institute of Agricultural Marketing, said that even today a large number of people across nations were either undernourished or malnourished. It's therefore imperative that this problem is addressed."
- •The commitment of US to this programme is historical and comes from its philosophy enshrined in the Declaration of Independence wherein `life, liberty and pursuit of happiness' have been recognized as inalienable rights of mankind, Dr. Garg added.

Smt. Usha Rani, Director General, MANAGE



Smt. V Usha Rani, Director General, National Institute of Agricultural Extension Management (MANAGE), said it was indeed a challenge to feed the growing population of the country. However, India's performance in this arena was quite commendable. To compete in the international market, it is also necessary to address the challenges in food processing and storage along with food production.

Ms. Battuya Tsetsegmaa, Mongolia



Mongolia is the world's most sparsely populated country; the remote landlocked nation faces the challenges of climte risk due to which the options for securing food security are limited. Only 1% of arable land is cultivated with crops. Major crops are cereals, vegetables and fruits. As a part of tht Feed the Future programme Mongolia will benefit by understanding the enabling potential for inventions and technology for value additionin fruits and vegatabled sector. This will usher in new avenues for enhancing food producers' income.

Ms. Madisa Kgotso, Botswana



80% of Botswana poulation is dependent on Agriculture. Traditional farming is the most dominant in terms of numbers of people involved and the geographical coverage. The majority of farmers are small-scale farmers who typically need continued assistance in capacity building to commercialize agriculture. An effective and vibrant service intervention is an important input in improving the performance of the sector and its resilience to market changes and climate change. I beleive that the training programme at CCSNIAM will bring in the capacity in me.

Ms. Bowman Beatrice Sede, Liberia



Liberia faces challenges owing to internal conflicts, social and medical crisis. Not withstanding theses constraints Liberia has immense potential in Agriculturegiven its rich natiral resources. As a part of FTF programme the medium and long term efforts such as present training programme at NIAM will help build agriculture resilience and mitigate the impact of future crisis.

Ms. Lydia Nyambura Manjeru, Kenya



My name is Lydia Nyambura Manjeru from Kenya. I work with the Ministry Agriculture as a market information and data collection officer. In this training am accompanied by two of my colleagues. First of all I wish to thank USAID Agency, NIAM AND MANAGE for supporting me and Executives from other countries to attend this training on emerging trends of fruits and vegetables. Kenya as a country has a lot of programmers that are supported by USAID and other development partners on fruits and vegetables production. We hope that this co-operation will continue in many years to come.

3 METHODOLOGY

The sessions were delivered through lectures, group discussions, case studies, and field visits. The program design was highly participatory. Each participant was expected to contribute ideas and take part in group activities. The participants worked in small groups to undertake various assignments allotted to them. The participants learning was facilitated through group interaction, field visits, industry experts and the trainers. Each delegate was given an opportunity to present the current system of marketing of fruits and vegetables and their experiences in their own country.

- 1. To deliver the themes 22 classroom sessions were delivered. We had invited 17 resource persons and experts. The sessions were delivered by inviting experts from corporate such as NCDEX, Big Basket, FSSAI, Science for society, Central Agriculture University, Eco ZONE, CFTRI, NCCD, Premium Farm Fresh, Technoserve.
- 2. Field visits to Fruits and vegetable market of Jaipur and to Show the PPP model of Mid-day meal at Akshay Patra.
- 3. One of the key points of the programme was development of Online Platform for learning. On this platform 15 themes have been developed which are available online. The online material comprises of presentations, Cases, notes, videos. All the participants were guided to access and learn these modules online. On successful completion online certificate has been generated.
- 4. A webinar was organized for the delegates to interact with Prof. David Hughes, Imperial College, London.

3.1 STUDY MATERIAL

Study material, prepared by the senior faculty of CCS NIAM and presentations of the speakers from Agri-Business Companies, Central University, Ministry of Agriculture etc. on all the major themes, and were provided to the executives. The soft copies of all the presentations made during the sessions were provided to the executives at the end of the course. The photographs of field visits and other important activities of program were also provided to the Executives. The executives had full access to CCS NIAM Library which has books, periodicals and online journals. ϖ In order to increase access to information and share knowledge on continuous basis, desk tops with Internet facility were provided during the entire course period.

Besides the hard copies the delegates had access to online study material on 15 themes developed on the online e-learning platform.







Day	Date	10 am -11.30 am	11.45 am -1.15 pm	2 pm-3.30 pm	4 pm -5.30 pm	7:30 pm – 8:00 pm
1	16-11-2016	 Registration and Introduction of the Participants Handing over the Training Kits 	Address by Director General Meeting with Faculty Introduction of the Team Brief about Inauguration	Interaction with USAID & MANAGE team	Doctor's Visit	
2	17-11-2016	Pre-Training Test Campus Visit and Formal Photo Session Inauguration				
3	18-11-2016	Management of Wholesale and Retail Markets, Dr. J.S. Yadav, CEO Premium Farm Fresh Waste Management of Fruits and Vegetables, Dr. J.S. Yadav, CEO Premium Farm Fresh Interactive Session with Dr. Chandra Sekhara, Director, MANAGE Introduction to the Online Courses, Mr. Amit Kalkal, Agribusiness Academy		Online Courses, Mr. Amit Kalkal,	Practical training session of Online Courses facilitated by Mr. Amit Kalkal & Mr. NVS Prasad	
4	19-11-2016	Visit to sites of Historical and Cultural Importance in Jaipur				
5	20-11-2016		Back to Work Pl	an Discussion and Preparat	tion (Peer group)	
6	21-11-2016	Linking farmers to market through FPO/FPC Mr. Raghav Raghunath, NCDEX	National Spot market (F &V), Mr. Yogesh, NCDEX	E-marketing and alternate marketing channels. Mr. Vipul Mittal-Big Basket	Practical session of Online Courses, Mr. Amit Kalkal	
7	22-11-2016	Visit to Muhana Terminal Market - Mr. Shanmukh Sagar	Solar Drying for Fruits and Vegetables Mr. Vaibhav Tidke, Science for Society	Food Safety and Quality Mr. S.C. Khurana, Consultant	Back to Work Session, Dr. Hema Yadav & Shanmukh Sagar K., NIAM, Jaipur	Webinar: Mastering market realities in fresh produce industry by Dr. David Hughes







Day	Date	10 am -11.30 am	11.45 am -1.15 pm	2 pm-3.30 pm	4 pm -5.30 pm	7:30 pm – 8:00 pm
8	23-11-2016	Emerging trends of Marketing, Dr. Hema Yadav, Director, NIAM	Practical training session of Online Courses, Mr. Amit Kalkal, Agribusiness Academy	Visit to Akshaya Patra, Mid-day Meal Complex, Jaipur	Visit to local Shopping Mall	
9	24-11-2016	Mini Cold Storages by Mr. Prateek Singhal, Ecozen	Opportunities and tips for Agri-Horti Business, Prof. P.K. Srivastava, Dean CAEPHT-CAU, Gangtok	Entrepreneurship Adoption in Processing and Preservation Based Food Enterprises. Prof. P.K. Srivastava, Dean CAEPHT-CAU, Gangtok	Creating Added Value out of Fruits and Vegetables – 1. Process Overview 2. Technological Elements 3. Market side opportunities Mr. Amit Kalkal	
10	25-11-2016	Processing of Fruits and Vegetables for better Health and Wealth Dr. Iboyima Singh, CFTRI	Trends in Fortification and Nutrition, Dr. Iboyima Singh, CFTRI	Direct Farm Linkage for Fruits and Vegetables, Mr. Suryamani Roul	Linking Smallholder farmers to organised retail players, Mr. Debranjhan Pujahari, TechnoServe India	
11	26-11-2016	Visit to Agra				
12	27-11-2016	Practice	Sessions	Cultural Evening		
13	28-11-2016	Market Information for Horticulture Mr. V.K. Sharma, NHB	Role of NHB for Integrated development of Horticulture, Mr. V.K. Sharma, NHB	Back to Work Session, Dr. Hema Yadav & Shanmukh Sagar K., NIAM, Jaipur		
14	29-11-2016	Cold Chain Management, Mr. Angshuman Siddhanta, NCCD	Post Training Test	Reconciliation of Documents and briefing for Valedictory Visit to Choki Dani and Special Dinner Shanmukh Sagar, NIAM, Jaipur		
15	30-11-2016	Valedictory Ceremony				







3.3 CURRICULAR ACTIVITIES

3.3.1 Class Room Sessions

SESSION 1: Management of Wholesale and Retail Markets

NAME : Dr. J.S. Yadav

DESIGNATION : Director

ORGANISATION : World Union of Wholesale Markets

The Session dealt with the management of various wholesale and retail markets around the world covering issues like ownership, differentiating facts over about the market operators, transport utilization patterns, structural dynamic of traders, Market Automation of Grower's Market, RUNGIS of Paris, Mercabarna of Spain, Gross Market Hamburg of Germany, New Covet Garden Market of London, etc.

SESSION 2: Waste Management of Fruits and Vegetables

NAME : Dr. J.S. Yadav

DESIGNATION : Chief Executive Officer

ORGANISATION : Premium Farm Fresh

The Session emphasized on different waste management technologies, provision for waste management available around the globe like Organic Recycling, Gasification, Biomethanation, Composting, Landfill, Incineration with the help of Case method of Sydney Markets Ltd.

SESSION 3: Introduction to the Online Platform

NAME : Mr. Amit Kalkal

ORGANISATION

DESIGNATION : Content Manager / A

AGRIBUSINESSACADEMY

World Union of Wholesale Markets

Learning Management System for managing the training program has been developed by NIAM by engaging Agri-Business Academy. The LMS created excellent learning interface and provided analytics on the learner experience. The deployment of course content on the LMS and facilitating the learning helped the participants to have access to e-resources such as sessions, presentations, webinars and evaluation. The sessions were guided by Mr. Amit Kalkal who had also developed the contents of the Learning Management System on an online platform.

: Agribusiness Academy







SESSION 4: Linking Farmers to Market through Fpo/Fpc

NAME : Mr. Raghav Raghunathan

DESIGNATION : Chief Operating Officer

ORGANISATION : Ram Rahim Pragati

Producer Company Ltd

RAMRAHIM PRAGATI PRODUCER COMPANY LIMITED

The session illuminates the on ground experiences of RamRahim Pragati Producer Company Ltd. (RRPPCL) in the past two years in tackling successfully several institutional challenges of integrating small and marginal farmers into their share of agricommodity value chain, including aspects of innovation in operations, financing and forward market linkages. RRPPCL which is owned by 162 self-help groups having 2662 women of the Adivasi community is based out of the Narmada Valley in Dewas District of Madhya Pradesh. After having incurred losses due to operational and market issues, the paper will present a real world view of challenges on the ground and solutions to each of them that have been evolved with a spectrum of stakeholders starting from Small Farmers Agri Business Consortium (SFAC), National Commodities Derivatives Exchange, institutional buyers, lending agencies such as NABFINS and finally the community itself.

SESSION 5: National Spot Market (F &V)

NAME : Mr. Yogesh

DESIGNATION : Head, E-wholesale

Platform (F&V)

ORGANISATION : NeML



NCDEX e-Markets Limited (formerly known as NCDEX Spot Exchange Ltd.) is the leading national Spot Exchange in India. It works with domain experts and offers trading platforms for trading in a host of commodities, both agricultural and non-agricultural to various market participants, primary producers including farmers, traders, processors etc. These trading platforms technological efficiency and market friendly trading features in a transparent atmosphere to make trading a rich and rewarding experience. The session informed about the company and its breakthrough initiatives like Mandi Modernization Program (MMP), e-Pledge, and e-marketing.







SESSION 6: E-Marketing and Alternate Marketing Channels

NAME : Mr. Vipul Mittal DIGO

DESIGNATION : National Category Head - F&V

ORGANISATION : Big Basket

BigBasket.com is India's largest online supermarket and allows a customer to walk away from the drudgery of grocery shopping and welcome an easy relaxed way of browsing and shopping for groceries. The company currently operates from Bangalore, Mumbai and Hyderabad and has a diverse portfolio that carries more than 12,000 products and over 1,000 brands.

The grocery retail market in India is growing at about 10% CAGR and is about USD 350Bn in size. Within this the online grocery market is expected to be about USD 10Bn in the next 4 years from now. A majority of this market is likely to be concentrated in the urban cities in the country.

SESSION 7: Solar Drying For Fruits and Vegetables

NAME : Mr. Vaibhav Tidke

DESIGNATION : Chief Executive Officer

ORGANISATION : Science for Society

Science for Society (also known as S4S) started in 2008 as an informal group of students from different backgrounds including engineering, medical, business and science. Science for Society was registered as an NGO in 2010; Vaibhav Tidke is the founder in the session, he informed about low cost technologies for farmers. His emphasis was on solar dryer for drying fruits and vegetables which is indigenous and low cost. He shared his experience of promoting solar dryer amongst the farmers and communities.

SESSION 8: Food Safety and Quality

NAME : Mr. S.C. Khurana

DESIGNATION : Consultant

ORGANISATION : FSSAI

JSSA1
Food Safety and Standards

Dr. S.C. Khurana has emphasized on Grade Standards, Standardization covering its importance and uses while throwing some light on Codex Alimentarius. Also covered were various Food Safety issues like Mycotoxins, Microbial Contamination, Food Irradiation, Traceability and different food safety management systems.







SESSION 9: Emerging Trends of Marketing (F & V)

NAME : Dr. Hema Yadav

DESIGNATION : Director

ORGANISATION : National Institute of Agricultural Marketing

Dr. Yadav explored the dynamic global consumption trends in relation to demographics, culture, age etc. which root for vibrant needs of the consumers which has to be catered by marketing of fruits and vegetable products by being adaptive, convenient, ethical, nutritional while optimising distribution channels and formats for sustainable growth.

SESSION 10: Mini Cold Storages

NAME : Mr. Prateek Singhal

DESIGNATION : Co-Founder

ORGANISATION : Ecozen

Ecozen Solutions is an energy-foucssed company that provides renewable energy based products. Mr. Singhal took the audience through the kind of innovations Ecozen has been doing in developing products primarily designed for the rural segment which does not depend on grid electricity and how after a 2-year breakeven can lead to over 40% increase in profits. As this innovative product can be suitably adapted for local conditions across the world it gave a perspective for the delegation for its adoption in their respective countries.

SESSION 11: Opportunities and Tips for Agri-Horti Business

NAME : Prof. P.K. Srivastava

DESIGNATION : Dean

ORGANISATION : CAEPHT-CAU, Gangtok

This session was focussed on three major objectives while dealing with producers and processors of horticultural produces and/or entrepreneurs. These include:

- Care of farm producers with respect to loss prevention, income and employment generation within production catchments
- Awareness generation in emerging entrepreneurs, and
- Sharing relevant information with entrepreneurs for preparing them to enter into agri/horti business based on preservation, processing and value addition.







SESSION 12: Entrepreneurship Adoption in Processing and Preservation Based Food Enterprises

NAME : Prof. P.K. Srivastava

DESIGNATION : Dean

ORGANISATION : CAEPHT-CAU, Gangtok

This lecture dealt with the new technological options for preservation and processing of fruits and vegetables besides highlighting new initiatives of Govt. of India in this reference and different approaches and emerging technologies for Preservation and Processing of Fruits/Vegetables for Higher Economic Returns to Growers/Producers/Farmers

SESSION 13: Creating Added Value Out Of Fruits and Vegetables

NAME : Mr. Amit Kalkal

DESIGNATION : Content Manager \(\Lambda \) AGRIBUSINESSACADEMY

ORGANISATION : Agribusiness Academy

The session provided information on generating valuable by products which yield raw materials to other companies that can be transformed into new lucrative products. Generating revenue resources creates a new opportunity. Commercializing by product require a small incremental efforts but it provides high recurring profitable returns at minimum costs and risks. Some of the examples of by-product utilization are fruit flour (a gluten free alternative) from fruit by products (core, pips and skin, cattle field from fruit and vegetable by products, enzymes from waste bread and pineapple waste etc. The session was made interesting by giving further examples of value addition such as textiles from banana, stem and coconut husk, leather alternatives from pineapple leaves, designer lamps and biodegradable lamp shades from agriculture by products.

SESSION 14: Processing Of Fruits and Vegetables for Better Health

NAME : Dr. Iboyima Singh

DESIGNATION : Principal Scientist

ORGANISATION : Central Food Technology

Research Institute

eftri

Dr. Singh discussed different food processing technologies with a business perspective and various processing techniques for fruits and vegetable. The processing technology for ready to serve beverages, preserves and candies, instant pickles etc. was informed.







Technology for dehydrated vegetables particularly low cost drying by solar and sun drying was informed. The Osmo dried fruits such as jack fruit, bulbs, pineapple was also informed. The minimally processed vegetables have a waste scope to develop rural base fruits and vegetables and processing industry. It is effective in decreasing the post-harvest losses. Technology for sugarcane, juice, speciality products was discussed in detail.

SESSION 15: Trends in Fortification and Nutrition

NAME : Dr. Iboyima Singh

DESIGNATION : Principal Scientist

ORGANISATION : Central Food Technology

Research Institute



The Nutraceutical revolution will lead us into a new era of medicine and health in which the food industry will become a research oriented one similar to the pharmaceutical industry. Presently India share of nutraceutical is only 1.5% in the market. Large number of foods of doubtful nutraceuticals value is being imported at high cost. Therefore, there is a need for development of reliable products that are both indigenous and effective. CSIR-CFTRI has developed nutraceutical products such as nutra-chikki with added spirulina, high purity curcumin, dehydrated green pepper without using chemical.

SESSION 16: Direct Farm Linkage for Fruits and Vegetables

NAME : Mr. Suryamani Roul

DESIGNATION : Deputy Director

ORGANISATION : TechnoServe India



Techno Serve is non-profit organizations headquartered in Washington DC that develops business solutions to poverty by linking people to information, capital and markets.

In the session he shared his experience of working with the farmers in India. It was informed that Techno Serve works with smallholder farmers to enable them to grow high value products. The organization engages with private-sector companies and links them farmer to help them to sell in profitable markets.

The organization also provides business training and skills development support to women and men who want to create thriving, sustainable enterprises. It integrates a gender lens throughout our programs and provides tailored support for women to expand their opportunities for sustainable livelihoods.







SESSION 17: Linking Smallholder Farmers to Organised Retail Players

NAME : Mr. Debranjan Pujahari

DESIGNATION : Associate Practice Leader

ORGANISATION : TechnoServe India

TECHNOSERVE
BUSINESS SOLUTIONS TO POVERTY

The session focussed on Business Solutions to Poverty by Techno Serve. It particularly highlighted the Direct Farm Intervention in Fruits and Vegetables. The outcomes of Lead Farmer Model - Single Retailer from Project Walmart were shared by the participants. A comparison of another model of Lead Farmer Model-Multiple Retailers from Project ORA was made. The session also highlighted the Farmer Producer Organisation Model of Multiple Buyers from the Project BMGF.

SESSION 18: Market Information for Horticulture

NAME : Mr. V.K. Sharma

DESIGNATION : Joint Director

ORGANISATION : National Horticulture Board National Horticultural Board

Growers can improve their returns by making better use of market information. The session laid importance of market information for the horticulture produce who can gain better return by accessing better market information and understanding how to make decision based on market information. The most important form of market data is price. Whilst fruit and vegetable producers must consider the price, they must be aware that price refers to a specific instance in time reflecting a specific supply and demand situation. To access if prices are likely to increase or decrease in the future then the total supply and demand situation must be understood.

SESSION 19: Role of NHB for Integrated Development of Horticulture

NAME : Mr. V.K. Sharma

DESIGNATION : Joint Director

ORGANISATION : National Horticulture Board National Horticultural Board

In his session Mr. Sharma covered various schemes of the National Horticulture Board like Commercial Horticulture Scheme which promoted high density plantation in Apple date Palm, Mango etc., Cultivation in protected condition (Polyhouse/Nethouse) for Tomato, Cucumber, Gerbera, Capsicum etc. Also covered were integrated post-harvest management and primary processing with focus on Grading, Automation, Refrigeration etc.







SESSION 20: Cold Chain - Importance and Management

NAME : Mr. Angshuman Siddhanta

DESIGNATION : Head - HRD & Coordination

ORGANISATION : National Centre for Cold Chain Development

National Centre for Cold Chain Development (NCCD) is an autonomous organization under Ministry of Agriculture and Farmers Welfare. The session by the expert from NCCD delved on the importance of cold chain. Bulk of fresh horticultural and floricultural produce benefit from cold chain as the crucial market link that makes it technically feasible to supply to multiple and distinct market locations within the produce's enhanced life span. The session taught about the major component of cold chain, the stakeholders involved and the technology. The session also informed about green pack houses and the operation in the pack house. The session was made interesting by giving various examples of produce across India.

WEBINAR: MASTERING MARKET REALITIES IN FRESH PRODUCE INDUSTRY

NAME : **Prof. David Hughes**

DESIGNATION : Emeritus Professor

AGRIBUSINESSACADEMY

ORGANISATION : Imperial College London

Dr. David Hughes has reviewed the key demographic, economic, lifestyle, shopping pattern and dietary factors which are driving the market for produce, how these are changing and how produce retailers, distributors, suppliers and growers will need to respond.

The major areas discussed were:

- Global population development and fresh produce consumption
- Smart approach to market research for fruits and vegetables
- Impact of urbanisation on fresh produce consumer demand
- Growth in global demand for Meat
- Factors effecting global food prices
- Fresh produce retail developments in Asia
- Fresh produce innovations in snacking and convenience foods
- Factors driving food purchasing behaviour and supply chain response
- Dealing with food fraud
- Retailing in developed markets
- Emergence of online models in fresh produce and consumers
- Consolidation in the fruits and vegetable inputs especially seeds
- Market opportunities in Fresh produce









Resource persons and the delegation in Classroom Sessions







3.3.2 E-Learning Platform

NIAM partnered with the Agribusiness Academy, UK to provide an online Learning Management System which provided an excellent learning interface and provided analytics on the learner experience. The progressive analytical reports of the participants are attached as Annexures.

In each of the 15 focus areas outlined by NIAM, The Agribusiness Academy has designed and deployed content to enrich the knowledge and learning experience by following the principles of modular designs and delivery. The content consisted of reading material viz. presentation, case studies and multimedia content related to the topic.

Website: http://agribusiness.academy/







Dr. David Hughes interacting with the participants in an interactive live Webinar







3.4 CO-CURRICULAR ACTIVITIES

3.4.1 Visit to Terminal Market (Muhana Mandi)

As part of the Feed the Future India Triangular Training Program on emerging trends in marketing of fruits and vegetables, a field trip was organized for the participants to visit the **Muhana terminal market**, the market is located in Jaipur. MUAHANA is a wholesale and retailing market, where the producers take its products to vendors. It has an area of 800 ha and it is situated in the city of Jaipur. The objective of the visit was to expose participants to the activities of the markets and also to witness how auctioning takes place. The participants were organized in groups and were asked to prepare the reports on the observations. The reports are enclosed in **Annexure-II, III & IV.**





Participants with the Market organisers of Muhana Terminal Market, Jaipur









Participants observing the weighment and grading process of Potato



Participants observing the auctioning process of Fruits and Vegetables







3.4.2 Visit to AKSHAYA PATRA, Jaipur (Mid-Day Meal Programme)



The Akshaya Patra Foundation commonly known as Akshaya Patra is a non-profit organisation in India that runs school lunch programme across India. To improve primary education and counter classroom hunger the Government of India has developed two of the most significant programmes- Sarva Shiksha Abhiyan (SSA); and Mid-Day Meal Scheme (MDMS) Through the flagship programme of Sarva Shiksha Abhiyan, the Government of India aims to achieve Universalisation of Elementary Education (UEE) in a time bound manner, by making available free and compulsory education to the children aged between 6–14 years.



Participants interacting with organisers of mid-day meal programme in Akshaya Patra, Jaipur

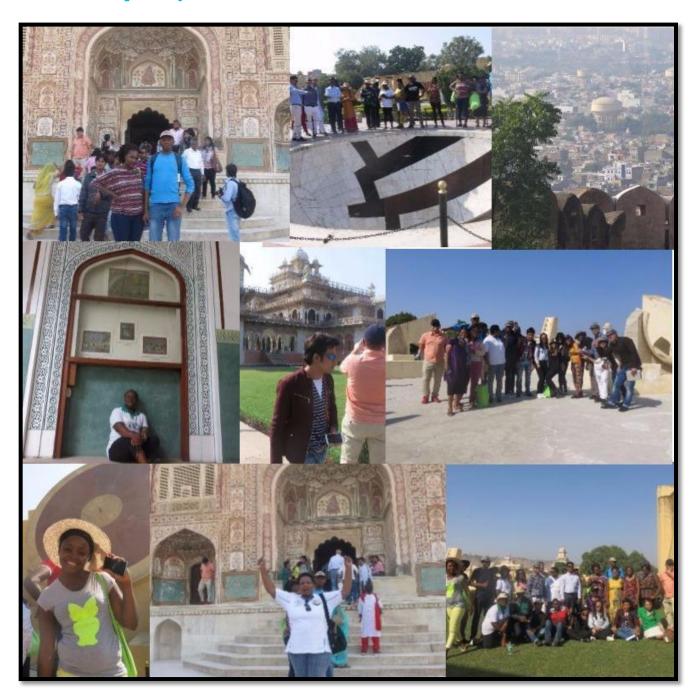






3.5 EXTRA CURRICULAR ACTIVITIES

3.5.1 Jaipur City Visit



A city visit with an escorted government certified tourist guide was organised which covered different locations of historical and cultural importance in Jaipur.







3.5.2 Cultural Evening

A cultural evening was organised by PGDABM students of NIAM which had the participation of all the delegates portraying their own countries' cultures.

About PGDABM programme at NIAM:

CCSNIAM offers a two year Post Graduate level programme in Agribusiness Management for students with Graduation and Post-Graduation in Agriculture and allied subjects.



3.5.3 Rajasthani Cultural Theme Park and Special Dinner (CHOKI DANI)



Participants experiencing the traditional culture of Rajasthan







3.6 BACK TO WORK PLANS

The present programme on "Emerging Trends in Marketing of Fruits and Vegetables" aimed at bringing awareness and understanding about the opportunities and challenges in the sector so as to foster best marketing practices to ensure fruit safety, empowering farmers and bringing innovations in their respective countries. Hence, the expected outcome is a professional commitment by each Executive to try new initiatives learnt during the training programmes at their work place after the training programme. It is the direct impact of the training programme seen in the field of the trainee. In the backdrop of orientation, inputs, interactions, study material and experiences received during the program, the executives prepared and presented individual "Back-at-work-plans" which would help operationalize the relevant concepts learned during the program in their respective countries. Back at work -plan also trace the connectivity between Indian experience and back home extension issues. The back to work plans having formulated on topics like capacity building for value addition, supporting farm based organizations, developing information pamphlets, formalizing whole sale price setting, establishing institute from agri-business, developing website for social media, training farmers on drawing and processing technology etc. Details of individual Back-at-workplans are given at Annexure-IV.

3.7 EVALUATION

3.7.1 Pre-Training

To check the level of knowledge, understanding and information, a pre- test was administered on the participants. There were 25 multiple choice questions in all. These questions were based on marketing, distribution channels, marketing strategies for major retailers, consumer behaviour, branding, marketing channels and forward and future contracts. Since major focus was on fruits and vegetables, questions were framed on new trends of marketing, fair trade, organic farming, e- marketing, non tariff barriers etc.

A pre- test was organized with the objective to check the existing knowledge of the participants so that it can help in establishing a benchmark for conducting technical sessions.

3.7.2 Analysis of the participants in the pre-training test

From the pre- training test marks of the participants, it was analyzed that 56% of the students scored marks below 50%. The trainees reflected less knowledge on forward future contract, E-marketing, market information and supply chain.







3.7.3 Post Training

After various sessions comprising of technical sessions, case studies etc. for 15 days a post training test was administered to check the enhancement in their learning and development.

3.7.4 Analysis of the participants in the post-training test:

From the post- training test marks, it was observed that only 14% of the students scored a percentage below 50% and 86% of the participants scored marks ranging from 60% to 80% which showed a substantial increase in their knowledge and understanding particularly in the area of consumer demand and market trends, market information and market intelligence, food safety quality and traceability, e-marketing, wholesale, retail and hyper markets, value addition and processing, storage and cold chain management, waste management in fruits and vegetables and agri-preneurship and innovations in marketing.

Conclusion: The conclusion drawn from this training programme was that there had been a considerable enhancement in the knowledge, execution and information of the participants which was lacking before the training was given to them. Hence an appropriate training method can provide result considerably.

3.7.5 Feedback on the training:

Three kinds of feedback was taken from the participants. These comprised feedback on 1) course objectives 2) online learning platform 3) overall design of the program.

- 1. **Course objectives:** Under course objectives, on a scale of 1 to 5, where ratings were 5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree and 1 for strongly disagree. Evaluation of the feedback was revealed in the following statements
 - The objectives of the training were clearly defined
 - Participation and interaction were encouraged.
 - The topics covered were relevant to me.
 - The content was organized and easy to follow.
 - The materials distributed was helpful
 - This training experience will be useful in my work.
 - The trainers were knowledgeable about the training topics.
 - The Programme Director coordinated efficiently
 - The time allotted for the training was sufficient.
 - The meeting room and facilities were adequate and comfortable

It was observed that mostly the participants were in the category strongly agree and agree, none in the category disagree and strongly disagree except for 3 participants who felt that the time allotted for training was not sufficient.







2. Online learning: To bring sustainability to programme and to provide additional support to the session, online learning platform and technical sessions were conducted on the basis of pre-test. 15 sessions were developed which could be accessed online. User ID was been created for each participants of the programme. Through this User ID the modules could be accessed even after the course was completed at NIAM. The contents would be updated regularly to make them contextual. An interesting feature of this online course was that with the completion of each session, a certificate would be generated. The participants were very happy and demanded for an additional user id which can be shared by their seniors in their respective offices. A webinar was also organized and the participants were satisfied with the quality and content of the webinar.

The usefulness of this online learning platform was judged on the following basis-

- The online modules are easy to access
- The online resource will be used after training
- The online module evaluation was helpful
- Will recommend this resource in office and colleagues

All the participants voted in the category of 'strongly agree' and 'agree'

- 3. Overall design of the program: The last feedback category was on the overall design of the program. The parameters covered under this were
 - Subject coverage
 - Conceptual Framework
 - Orientation to Practicals
 - Participatory and group task
 - Relevance of Resource Person
 - Reading Material and presentation
 - Online learning platform

All the participants voted in the category of 'strongly agree' and 'agree'

After the training sessions, some important suggestions were also given by the participants on additional training development sessions that they would like to have. Some of the suggestions on sessions are as below -

- More sessions on producer farmer organizations
- Field visits and farmer experiences from Africa and underdeveloping countries
- Exposure to mechanisation of farm technology
- Value chain on protected cultivation
- Extension program on food security, livestock management, poultry production







- Emerging trends in data collection and data automation
- Price forecasting of agricultural produce
- Training on agriculture data management
- More field visits and factory visits

The participants revealed that they require more visits to factories and cold storages, agro centres and processing units. They required more materials for computer practice. They felt that the time for training should be more. They required more practical sessions which could not be provided due to lack of time.

Participants from Mozambique suggested promotion post –harvest management actions for the small farmers, extension program to support farmers in Maputo province especially fruits and vegetables producers.

Participants from Afghanistan felt that this training can be improved if more visits are organized to manufacturing units and processing centres.

Participant from Mongolia reaffirmed that they would adopt new trends of marketing in their country which they learnt in this training by making business plans that would suit their target groups.

Participants from Liberia indicated that their scope in marketing has been enlarged with respect to business plans, value chain management, marketing strategies in agriculture etc.

Participants from Malawi suggested that they would encourage farmers to do more value addition and market research.

Conclusion: The overall training brought considerable enhancement in the knowledge, execution and information of the participants which was seen lacking before the training was given to them. Hence an appropriate training method can provide promising results.

3.8 What did we achieve collectively?

- Build capacity of officers, executives and managers in the area of marketing of fruits and vegetables by bringing an understanding of market trends and new developments
- Bring awareness about the opportunities and challenges in marketing of fruits and vegetables so as to enrich market channels.
- Inform about online marketing and application of IT Tools for marketing of fruits and vegetables so as to design projects and applications to avail these opportunities.
- Provide exposure to best marketing practices in ensuring food safety, managing supply chains and value addition.
- A good understanding of cultures of other countries and a network of professionals







4 VALEDICTORY & CERTIFICATE AWARD

4.1 CONDUCT OF VALEDICTORY

The Valedictory function of the Feed The Future India Triangular Training



Programme (FTF ITT) on Emerging Trends in Marketing of Fruits and Vegetables was organised by Mr. Shanmukh Sagar K under the auspices of the National Institute of Agricultural Marketing on 30th November, 2016. With 27 participants of the training programme attending the function, Prof. Vijay Shankar Vyas, Emeritus Professor Chairman, Governing Board, Institute Development Studies, Jaipur, Dr. Irina Garg, General. National Institute Agricultural Marketing, Jaipur, Dr. Hema Yadav, Director, NIAM, Jaipur and **Dr.**

Chandra Shekara, Director, MANAGE, Hyderabad participated in the function.

The schedule of the valedictory programme was as below.

11:00 am	11:00 am : Welcome to Guest at Convention Centre	
11:10 am : Programme Report – Course Director		Programme Report – Course Director
11.20 am	:	Feedback from Participants (4 representatives)
11.35 am : Address by Ms. Irina Garg, Director General, NIAM		Address by Ms. Irina Garg, Director General, NIAM
11.45 am : Address by Professor Emeritus Vijay Shankar Vyas		Address by Professor Emeritus Vijay Shankar Vyas
12.00 pm : Distribution of Certificates by Director General & Prof. V.S. Vyas		Distribution of Certificates by Director General & Prof. V.S. Vyas
12.25 pm : Vote of Thanks		Vote of Thanks



(Left to Right) Dr. Hema Yadav, Director, NIAM, Jaipur, Dr. Irina Garg, Director General, NIAM, Jaipur, Prof. V.S. Vyas, Dr. Chandra Sekhara, Director, MANAGE, Hyderabad





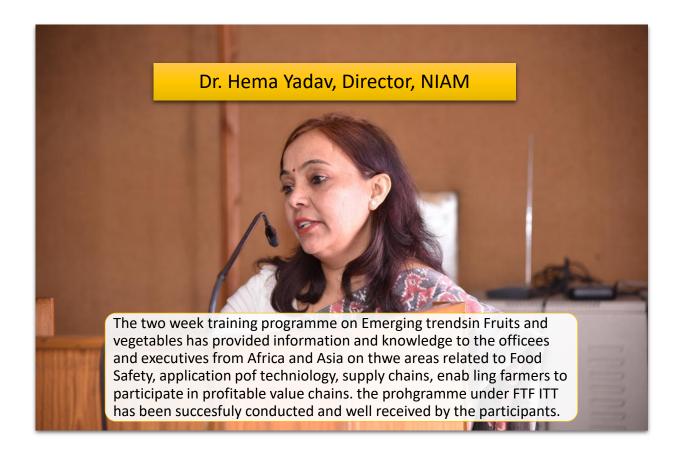


4.2 ADDRESS BY PROF. VIJAY SHANKAR VYAS

Prof. Vijay Shankar Vyas



"A global partnership to ensure food security is important. In this direction CCSNIAM has taken a right step. As the institute is an apex intitute for training, I believe the curriculum designed by it will build the capacity of participated delegation there by incresing the profitability in their respective conuntries' Fruit and Vegetable Sector," he said.









4.3 AWARD OF PARTICIPATION AND APPRECIATION CERTIFICATES



Participants receiving the Completion and Appreciation certificates

4.4 PARTICIPANTS' TESTIMONIALS

Mr. Ochieng Patrick Okaka, Kenya



"The course was intensive with highly qualified resource persons with a wide range of expertise which we as participants could easily relate to. The field visits to the markets gave us real experiences and an eye opener which I am sure most of us participants would like replicated in our respective countries. The trip to AGRA where we saw one of the wonders of the world (TAJ MAHAL) will forever be remembered."







Ms. Chifuniro Somanje, Malawi



"The training has allowed us to learn from experts but most of all cross country learning through experience sharing from the 9 countries. I have faith in my fellow executives that we will initiate change. This has been a life changing training from which we all learnt alot. Particular thanks to NIAM for ably putting up with 27 different individuals. It can not be easy. And for arranging for tours through Jaipur and Taj Mahal (one of the seven wonders of the world). It was educational and entertaining."

4.5 WAY FORWARD

- Similar kind of programs can be extended for more countries
- Exploring online platforms like the LMS for similar kind of programs has to be encouraged which can multiply the efforts and extend the reach.
- More field visits can go a big way in enhancing the learners' experience
- As a follow up of the action plan, visits to some countries by the organising institute can help in building examples.







ANNEXURE I: List of Participants

S1.				
No.	Afghanistan			
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ANNEXURE II: Terminal Market Report, Malawi Team

CHRISTOPHER AMONI, BRENDA MWAGOMBA AND CHIFUNIRO SOMANJE

INTRODUCTION

Terminal Market is a central site often in a metropolitan area that serves as an assembly and trading place for agricultural commodities. The team visited Muhana terminal market which is located in Jaipur city. The objective of the visit was to appreciate how fruits and vegetables are traded in terminal markets. Muhana terminal market has an area of 1,650 ha.

OBSERVATIONS

Block Organisation: Muhana market is organized in blocks whereby each individual commodity is traded separately for example all farmers with irish potato are in one block. There is a body that that oversees the operations of the market. This is not the scenario in Malawi. In Malawi farmers are selling a combination of fruits and vegetables in one place.

Grading and Packaging: Produce in Muhana market especially under fruits was properly graded and packaged according quality. However in Malawi the farmers sell ungraded and unpackaged fruits.

Auctioning: Auctioning for fruits are done throughout the day while in vegetables is done from 4am to 12 noon. In Malawi the fruits and vegetables are sold without the use of auctioning.

Hygiene Practices in the market: It was observed that the hygiene within the market premises was poor despite that they are selling the food items. In Malawi hygiene is a priority where food items are sold.

Market Facilities: They have market facilities such as proper sheds, toilets, cold rooms, ripening chambers, police unit, post office facilities and electronic price display unit. While in Malawi we have some sheds but not sufficient for everyone, toilets, bins and market committees.

CONCLUSION

The visit to Muhana terminal market was very educative and met our expectation. We had an opportunity to interact directly with the farmers and the market committee. This made us understand better the operationalization of the terminal markets.







ANNEXURE III: Terminal Market Report, Ghana Team

EUNICE ARHIN, ALINA DJANIE & CHARLOTTE OPPONG-BAAH

INTRODUCTION

As part of the Feed the Future India Triangular Training Program on emerging trends in marketing of fruits and vegetables, a trip was organized for the participants to visit the Muhana terminal market, the market is located in Jaipur. The objective of the visit was to expose participants to the activities of the markets and also to witness how auctioning takes place.

MARKET FEATURES

The size of the Muhana market is 1,550 Ha. It is equipped with two banks, police station, post office, canteen, toilet facilities etc. The market is segmented into three blocks. Block A is for trading of potatoes and onions; Block B is for fruits whilst Block C is for vegetables. A tax of 1.5% is collected from traders and this is used to maintain the market infrastructure as well as pay the employees. In the year 2006/2007 a total revenue of 8.99 crore rupees was generated by the market. This rose to 22.4 crore rupees in 2015.

Prices of the commodities are arrived at mainly through auctioning and also bargaining. The daily prices are displayed on an electronic board.

OBSERVATIONS

It is a well-organized market with designated areas for the sale of fruits and vegetables. Fruits are well packaged in appropriate boxes. The commodities are sorted, graded and bagged.

Most of the vegetables were displayed on sacks on the ground. It was also observed that the traders used various types of weighing scales in their trade which is commendable.

The market is equipped with a ripening facility for bananas. The fruits are first washed, packed and allowed to ripe with the use of ethylene gas. Temperature is set at 20°C and ripening is achieved within 4 days.

It was observed that cattle were present at the market place and their droppings were found at various locations. This poses a food safety issue because flies can transfer micro-organisms from the droppings unto the fruits and vegetables displayed.

CONCLUSION: The objective of the visit was achieved.

APPENDIX

Table 1: Prices of some fruits in rupees

FRUIT	WEIGHT (KG)	PRICE (Rupees)	REMARKS
Pomegranate	1	40	Small sizes
Pomegranate	1	100	Big sizes
Apple	1	100	4-5 pieces
Tangerine	1	15	
Plum	5	1000	
Grapes	5	1000	
Kiwi	5	500	







ANNEXURE IV: Terminal Market Report, Mozambique Team

JULIETA, IVAN AND ASSANE

MUAHANA is a wholesale and retailing market, where the producers take its products to vender. It has an area of 800 ha and it is situated in the city of Jaipur.

Objective of the visit

✓ To understand how the market works and how it is structured and organized.

Observations:

- o The management of the market is made by a committee;
- The founds of the market are coming from the Government and taxes market payments;
- The market is organized in three blocks such as:
 - Potato, onion and garlic;
 - Vegetable: carrot, cabbage, beetroot, pepper, spinach, parsley, pumpkin, turnip, cauliflower and broccolis;
 - Fruits: banana, grapes, cantaloupe, watermelon, orange, acts, rome, pineapple, papaya, plums.
- o There are auxiliary infrastructures: Warehouses, refrigerating containers and room of acceleration of maturation of the banana, Bank, Police Station and toilets;
- o Potatoes, onion and garlic are packed in sisal bags;
- o Fruits are packed in boxes;
- o The vegetables are sold not packed but that the salesmen offer plastics bag;
- All the products are put directly on the floor;
- The prices are not fixed, are determined in accordance of auction system, its grade and demand;
- Sellers accept money and checks;
- o There are movement of animals in the enclosure, such as bovine and canine;
- o It has got a great diversity and amounts of fruits and vegetables,
- o Irish potato, onion, garlic and fruits are sold in accordance of grade;
- o All sellers have a bank account would bank;

Aspects to improve

- ✓ Introduction of wooden pallets to prevent the direct contact of the product with the floor:
- ✓ Introduction of balconies for selling vegetables;
- ✓ To minimize the circulation of the bovines and canines in the enclosure of the market.

Learned Lessons:

- ✓ The distribution of the products on blocks facilitates the consumers to find, to compare and to purchase the products in the market;
- ✓ The classification of the products in the market, allows great competitiveness between the farmers, making them to produce best quality of products so that they get greater income:
- ✓ The straight location of the products by farmers in the market allows them to get acceptable profits;
 - ✓ The easiness of bank transactions between the sellers and purchasers.







Annexure V: Back To Work Plans

s.no	Topic	Name	Problem to be investigated	Expected Result
1	Capacity Building for Value addition	Ms Nyambura Lydia Manjeru , Kenya	Poor prices on marketing of vegetables, eg- kales, spinach, poor packaging along value chain	Prolonged shelf life of Kales, less wastage, better prices and healthy products
2	Supporting FBO with marketing skills and knowledge development in vegetables, maize and peas	Mr Christopher Amoni, Malawi	Most of the farmer based organisations (FBO) are weak and lack marketing skills.	Improved knowledge and skills on marketing of crops, business management, improved household income through farming business
3	Management of wholesale, retail markets of vegetables	Mr Sergelen Badarch, Mongolia	Low mechanisation, few packaging, price, transfer expensive, no APEMCs, no actions and stocks, no storage, few supply of vegetables and fruits.	Good chain wholesale, retail markets, increasing income, good logistics channel, government promoted wholesale, retail markets
4	Establishment of nursery for farmers	Ms Peters Jerryline Choko, Liberia	Lack of nursery productions & farmers plant crops directly	At the end of production, women will be able to sell their crops to other farmers and the income received will in turn help them boost additional production
5	Creating awareness about marketing of fruits and vegetables	Mr. Voker Roland Kerdoue, Liberia	Farmers lack awareness of changes in the emerging marketing trends in the marketing of fuits and vegetables and other agricultural products	Every women is expected to be able to sustain themselves through the production of vegetables/ crops that they will be interested in producing
6	Farmers lack knowledge of new techniques in producing and marketing of vegetables	Ms. Bowman Beatrice Sede, Liberia	Farmers lack knowledge of new techniques in producing and marketing of vegetables - Okra(lady's finger) and Maize	To impact the lives of women group by teaching new techniques in production and linking them to market
7	Develop information pamphets	Ms. Njeru Jane Wandi Wanjira, Kenya	Inadequate learning materials for farmers, farming rudimentary skills for value addition/ marketing	Packaged information pamphlets for use in training farmers that can address one product and then be rolled out to other food &Vegetables and other countries
8	Develop an implementation strategy to formalize the wholesale price setting mechanisms	Mr Ochieng Patrick Okaka, Kenya	Absence of formal legal APMC's allowing cartels to take over price setting mechanisms and this results in farmers not getting value for money on their produce	A policy and legal framework to be put in place to formalised all activities in the wholesale markets, leaving retail markets to supply and demand.
9	Improved value addition technologies for improved nutrition	Ms Brenda Mwagomba, Malawi	Lack of proper value addition for sweet potatoes for farmers in Zomba district	Improved value addition technologies for improved nutrition for samll holder farmers producing sweet potatoes.







10	Develop training material and build capacity of farmers	Ms Chifuniro Somanaje, Malawi	High post harvest losses due to poor handling of onions and tomatoes.	reduced post harvest losses in onions and tomatoes, improved incomes from selling of onions and tomatoes
11	Organise marketing groups	Ms Madisa Kgotso, Ms Senkeleng Onkgomoditse, Mr Molefi Golebaone Meswele, Bostswana	Farmers produce in clusters but their marketing system is not organised, farmers incur losses due to poor harvest	Farmers to be trained which will reduce post harvest losses by 10% and increase profit by 10%, commercialize locally processed vegetables and fruits.
12	Vegetable Business Total Solution Project	Ms Battuya Tsetsegmaa, Mongolia	Year after year the country is facing loss on vegetable sector due to no understanding of precise farming and management of operations, supply chain and infrastructure of Mongolia, customised products and services, value addition and processing, PO or any other form of organisation and online marketing in vegetable sector.	In 2017, current sales to increase 3 times per month, decrease of storage wastage to 3-5%, to launch new emarketing techniques, create vegetable and service brand, increase profit so EBIT margin would come down to 10%
13	opening of Institute for ABM students (20 persons)	Mr Omid Abdul Rahim, Afghanistan	There is little understanding of theoretical subjects and practical subjects	Introducing agri marketing capacity building for the students of ABM
14	Deveoping website and social media for F & V marketing	Mr Zabihullah Awloiyazada, Afghanistan	In their country in the Ministry of agriculture, livestock and irrigation, there is no webpage about fruits and vegetables for marketing and value addition	All the farmers, producers, traders, retailers will know the process of marketing of F & V and also they will be aware of products, value addition, new techniques of emerging trends.
16	Value chain	Mr Thon Ayoura, Cambodia	Value chain study of Mango	Mango cost in the country, value chains to other countries, opportunity, constraint to exporting mango
17	Value chain study of pineapple	Ms Charlotte Baah Oppang, Ghana	Pineapple farmers cannot find buyers for their produce during the peak seasons and sell their produce at very low prices and sometimes in this process, the pineapples get rotten	to reduce post harvest loss and enclurage product diversification by farmers for a better income
18	Developing a business plan for mini cold storage	Mr Arash Mohammad Fawad, Afghanistan	CARD -F had been implementing value chains in Afghanistan, the problem which they are facing there is of lack of cold storage	to develop a business plan for this and share with traders and retailers. Thus the traders import such tecnology to Afghanistan until farmers are able to extend holding life of their prodcuts individually or by govt support







19	Develop training material	Ms Ziote Julieta	The extension workers do not	Elaborated two manuals for
	on fruits processing technologies for extension workers	Milcinho Eliseu, Mozambique	have technical knowledge on fruit processing technologies to support farmers on post- harvest management of fruits to reduce post-harvest losses.	training extension workers on banana and pineapple processing technologies, provide technical material for extension workers about post- harvest management of banana and pineapple, selected and approved information about banan, pineapple processing tecnologies of banana and pineapple
20	Develop a training material on fruits processing technologies for extension	Mr Ivane Sarmento Maunze, Mozambique	The extension worker do not have adequate informnation on vegetable processing technology	Elaborated manual for tomato and carrot processing techniques, availability of tomato and carrot processing information for extension workers
21	Training farmers on drying processing technology for vegetables and fruits	Mr Fernando Assane, Mozambique	High post harvest losses , inadequate conservation methods, insufficient vegetables in the rain season and lack of packaging	100 farmers trained, post- harvest losses reduced, improved conservation methods of fruits and vegetables, introduce packaging method and availability of vegetable in rain season
22	Value chain study of banana	Ms Sao Sreyleak, Cambodia	Value chain study of banana	banana cost in the country, value chains to other countries, opportunity, constraint to exporting banana
23	Value chain analysis on Logan Fruit	Ms Bou Socheata, Cambodia	Lack of experience in value chain of commodities, logan fruit will be chosen to analyse the value chain	price information of logan fruit compared to two different countries, the flow of prodcuts (supply chain of logan fruit), potential of products to the international markets
24	Value chains of cassava	Mr NY Vannak, Cambodia	value chains of Cassava, Cost fluctuation	The Cassava cost in the country (prodn cost), value chains to other countries, opportunity/ constraints to exporting Cassava
25	Value Addition to Mango	Mrs Alina Naa Densua Albereto Djanie, Ghana	During mango peak season, the fruits go waste and farmers are forced to sell at very low prices	reduce post- harvest losses, diversification of products
26	Value addition to oranges	Mrs Eunice Arhin, Ghana	sale of oranges at very low proces during peak seasons and the waste associated with	reduced post harvest losses







ANNEXURE VI: Media Coverage - Print Media





















ANNEXURE VII: Media Coverage - Online



Richard Verma lays emphasis on Indo-US commitment to break vicious cycle of poverty, hunger



The training at NIAM will train participants on areas related to global trends in fruits and veget

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The "Feed the Future India Triangular Training Program" builds upon five decades of U.S. India citiaboration to utilize science and feedhoology to develop innovative solutions to help farmers: roopsim is led by linda's National Institute of Agricultural Extension Management (MANACE) in ryspectoda, which is partnering with an array of India institutions to deliver society-ospecific rainings. MANACE will train agricultural professionals from 17 countries in Africa and Asia on perpensiblent forming practices such as agricultural marketing, daily management, food processir and ways to prevent post harvest losses.

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THE TIMES OF INDIA

US-India agriculture training programme begins



JAIPUR: The US ambassador to India Richard R Verma inaugurated the third US-India triangular training on 'Emerging Trends in Fruits and Vegetable Marketing' at the CCS National Institute of Agricultural Marketing in Jaipur on Thursday. The training is part of a \$4 mil lion collaborative partnership between the US Agency for International Development (USAID) and India's ministry of agriculture. Twentyeight participants, including policy makers and farmers from nine countries -Afghanistan, Botswana, Cambodia, Mongolia, Kenya, Malawi, Liberia, Ghana, and Mozambique, are taking part in the training, scheduled to go on till November 30.

The training seeks to provide an understanding of new trends, approaches and procedures in marketing fruits and vegetables so that producers and businesses in Asia and Africa can participate in global markets and make use of emerging opportunities to increase their income. Speaking at the event, ambassador Verma emphasized the commitment of US and India to work together to alleviate poverty and hunger.

'The NIAM session will teach participants the latest global trends in fruit and vegetable marketing, food safety and quality requirements, and the use of technology as an enabling force. Collectively, these strategies have the potential to create an environment conducive for investments and entrepreneurial development," he said.

Irina Garo, director general, NIAM, said that even today a large number of people across nations were either undernourished or malnourished. It's therefore imperative that this problem is addressed.

The commitment of US to this programme is historical and comes from its philosophy enshrined in the Declaration of



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RICHARD VERMA LAYS EMPHASIS ON INDO-US COMMITMENT TO BREAK VICIOUS CYCLE OF POVERTY, HUNGER

Jaipur (Rajasthan) [India], Nov. 17: U.S. Ambassador to India Richard R. Verma, who today inaugurated the third U.S.-India triangular training on "Emerging Trends in Fruits and Vegetable Marketing" at the CCS National Institute of Agricultural Marketing (NIAM) here, emphasized the commitment of both nations to work together to break the vicious cycle of poverty and hunger.

The training at NIAM will train participants on areas related to global trends in fruits and vegetable marketing, understanding food safety and quality requirements, and how to use technology

Collectively, these strategies have the potential to create an environment conductive to investment and entrepreneurial development." he said.

The training is part of a (Dollar) 4 million collaborative partnership between the U.S. Agency for international Development (USAID) and Ministry of Agriculture titled "Feed the Future India Triangular Training Program." Twenty-eight participants including policy makers and farmers from nine countries - Afghanistan. Botswana. Cambodia. Mongolia, Kenya. Malawi. Liberia. Ghana. and Mozambique - have arrived at NIAM to take part in the training, scheduled from November 16-30, 2016.

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The program is led by India's National institute of Agricultural Extension Management (MANAGE) in Hyderabad, which is partnering with an array of indian institutions to deliver sector-specific

MANAGE will train agricultural professionals from 17 countries in Africa and Asia on specialized farming practices such as agricultural marketing, dairy management, food processing and ways

The first phase of the program trained more than 200 agricultural professionals from Kenya, Liberia and Malawi, who are now implementing new farming techniques to increase farm

Following the success of the previous program, the Government of India and the United States are expanding the program with today's launch to reach hundreds of agricultural professionals and in turn thousands of smallholder farmers.

Source: ANI







ANNEXURE VII: Media Coverage - Online (Contd.)



US envoy Richard Verma inaugurates 3rd US-India training programme



JAIPUR: The US Ambassador to India Richard R Verma on Thursday inaugurated the third US-India triangular training on "Emerging Trends in Fruits and Vegetable Marketing" at the National Institute of Agricultural Marketing (NIAM) in Jaipur. The training is part of a \$4 million collaborative partnership between the US Agency for International Development (USAID) and Union Ministry of Agriculture

28 participants including policy makers and farmers from nine countries Afghanistan, Botswana, Cambodia, Mongolia, Kenya, Malawi, Liberia, Ghana, and Mozambique - have arrived at NIAM to take part in the training, scheduled from November 16-30, 2016. The objective of the training is to provide participants with an understanding of new trends, approaches and procedures in marketing of fruits and vegetables, which in turn will help the producers and marketers in Africa and Asia to participate in global markets and emerging opportunities to enhance their



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Gender Equality

Financial Inclusion FOREIGN ASSISTANCE

U.S. AMBASSADOR RICHARD VERMA LAUNCHES 3RD TRIANGULAR TRAINING IN AGRICULTURE AT JAIPUR

Training Part of \$4 Million Joint I For Immediate Release oint U.S.-India Agriculture Capacity Development Program

Thursday, November 17, 2016

91 11 2419 8586

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Twenty-eight participants including policy makers and farmers from nine countries - Afghanistan, Botswana, Cambodia, Mongolia, Kenya, Malawi, Liberia, Ghana, and Mozambique - have arrived at NIAM to take part in the training, scheduled from November 16-30, 2016. The objective of the training is to provide participants with an understanding of new trends, approaches and procedures in marketing of fruits and vegetables so that the producers and marketers in Africa and Asia can participate in global markets and emerging opportunities to enhance their incomes.

Speaking at the event, U.S. Ambassador Verma emphasized the United States and India's commitment to work together to break the vicious cycle of poverty and hunger. "The training at NIAM will train participants on areas related to global trends in fruit vegetable marketing, understanding food safety and quality requirements, and how to use technology as an enabling force. Collectively, these strategies have the potential to create an environment conducive to investment and entrepreneurial

The "Feed the Future India Triangular Training Program" builds upon five decades of U.S.-India collaboration to utilize science and technology to develop innovative solutions to help farmers. The program is led by India's National Institute of Agricultural
Extension Management (MANAGE) in Hyderabad, which is partnering with an array of Indian institutions to deliver sector-specific
trainings. MANAGE will train agricultural professionals from 17 countries in Africa and Asia on specialized farming practices such as agricultural marketing, dairy management, food processing and ways to prevent post-harvest losses.

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Richard Verma lays emphasis on Indo-US commitment to break vicious cycle of poverty, hunger



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