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PROGRAMME FOR IMPROVED NUTRITION IN SINDH (PINS)

In support of the Accelerated Action Plan, Government of Sindh

Training of Trainers for RSPs Staff and Government Officials on Kitchen Gardening, Livestock and Poultry Management



Batch-I NSRP & TRDP Groups | 11th July to 20th July, 2018
Batch-II SRSO & Govt. Officials | 30th July to 8th August, 2018

Agriculture Poly – Technique Institute (API), National Agriculture Research Centre (NARC), Pakistan Agriculture Research Council (PARC), “M/O National Food Security & Research, Government of Pakistan” Islamabad.

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Acronyms and abbreviations

AAP	Accelerated Action Programme
ACF / AAH	Action CONSOL La Faim / Action Against Hunger
AFS	Agriculture and Food Security
API	Agriculture Poly Technical Institute
ASO	Assistant Scientific Officer
AZRC	Arid Zone Research Centre
AZRI	Arid Zone Research Institute
A4N	Agriculture for Nutrition ²
BARDC	Baluchistan Agricultural Research & Development Centre
BoGs	Board of Governors
CA	Conservative Agriculture
CRA	Climate Resilient Agriculture
CSA	Climate Sustainable Agriculture
CU5	Children under Five
DRR	Disaster Risk Reduction
ER	Expected Results
EU	European Union
FFS	Farmer Field School
GAM	Global Acute Malnutrition
GOS	Government of Sindh
GoP	Government of Pakistan
MOU	Memorandum of Understanding
NTHVCRI	National Tea and High Value Crops Research Institute
NARC	National Agriculture Research Council
NARS	National Agriculture Research System
NSRI	National Sugarcane Research Institute
NIGAB	National Institute of
NutVal	Nutrition Value
NUYT	National Uniform Yield Trials
PARC	Pakistan Agriculture Research Council
PDC	Performance, Documentation and Communication
PLWs	Pregnant and Lactating Women
PL	Programme Leader
PPR	Pesti
PINS	Programme for Improved Nutrition in Sindh
PSO	Professional Scientific Officer
PSDP	
QQT	Quality, Quantity and Timeliness
SARC	Southern-Zone Agricultural Research Centre
SSO	Senior Scientific Officer

Overview

RSPN in collaboration with National Research Council organized an Eight-day Training of Lead Trainers for RSPs and Government officials at Regional Training Centre of National Agriculture Research Centre (NARC) Islamabad. The purpose of the training is to develop a cadre of master trainers who will be trained substantially on Agriculture particularly Kitchen Gardening, Livestock and poultry management. The training event divided into two batches and consisting RSPs key staff along with community nutrition and agriculture officers who will learn oral / practical aspects of the subject aforementioned, specifically focused to build the capacity of participants on transfer of innovative techniques / technical solutions for promotion of kitchen gardening at community / household level and small scale community farming and value chain by using the Farmer Field School approach. A total of 50 trainees (4 project staff from each district and one official from the government) trained as Lead Trainers. The capacity building event is facilitated by resource persons from API - NARC. RSPN team in close coordination and collaboration with NARC, Agriculture Department and FAO for finalization of modules for this training. These lead trainers will facilitate six-day step down training of project staff at district level to train them as master trainers for roll out of training events for VO level agricultural entrepreneurs. This activity was divided into two batches and scheduled by 11th to 20th July followed by exposure visit to Arid Agriculture University Rawal Pindi and meeting at RSPN head office followed by a brief session with NRSP organized Chirah Local Support Organization, Islamabad and second batch workshop held by 30th July to 8th August 2018 followed by visit of Murree farm for exposure.

Agriculture officers from Accelerated Action Plan (AAP) departments, Government of Sindh invited to participate in the eight days training workshop. AAP has nominated ten agriculture officer possessing required qualification along with hands-on experience in the field since substantial number of years for eighth days training on kitchen gardening, livestock and poultry management.

Welcome and Introduction

Mr. Muhammad Anwar, Director Agriculture Ploy-Technique Institute PARC National Agriculture Research Centre along with his team members welcomed the participants and invited volunteer from the participant to recite verses from Holy Quran. Mr. Anwar again welcome the participants of RSPs and called upon distinguished guests

Dr. Nadeem Amjad, Director General PARC National Research Centre [NARC] and Khaleel Tetlay, Chief Operating Officer RSPN and Muhammad Akbar Raza, Programme Director, Programme for Improved Nutrition in Sindh [PINS] to occupy space on stage. He further introduced that Pakistan Agricultural Research Council (PARC) is the apex national organization working in close collaboration with other federal and provincial institutions in the country to provide science based solutions to agriculture of Pakistan through its statutory functions. He said that decision-making body of PARC is its Board of Governors (BoGs), responsible for the control, direction and superintendence of the affairs of PARC. The Board is assisted in its operation by a number of Committees. The Federal Minister for National Food Security & Research, GoP is the President of the Board. He further discussed the functions of PARC and said that functions of PARC as laid down in PARC Ordinance 1981 are as follows:



- To undertake, aid, promote and coordinate agricultural research;
- To arrange expeditious utilization of research results;
- To establish research establishments mainly to fill in the gaps in existing programs of agricultural research;
- To arrange the training of high level scientific manpower in agricultural sciences;
- To generate, acquire and disseminate information relating to agriculture;
- To establish and maintain a reference and research library; and
- To perform any other functions related to the matters aforesaid.

Mr. Anwar furthermore familiarised the structure at present, PARC has seven divisions; five technical divisions: "Plant Sciences", "Animal Sciences", "Social Sciences", "Natural Resources", "Agricultural Engineering" and Two services divisions: "Finance" and "Coordination & Monitoring".

The activities of various technical divisions related to statutory functions of PARC are handled through in house research establishments of PARC and through countrywide cooperative research programs on various commodities, MOU's with national / international research organizations, PSDP funded projects and also through competitive grant of Agricultural linkages Program, Ministry of Science and Technology and other institutions.



Mr. Muhammad Anwar called upon Mr. Khaleel Teltay COO, RSPN for opening remarks. Mr. Teltay welcomed the participants and appreciated / thanked management of NARC for scheduling the training under supervision of trained and experienced professionals / scientists who will be devoted for the training to impart essential conceptual knowledge followed by technical mock exercises for better understanding for the trainee agriculture and nutrition officers.

He shared programme objectives to the participants and emphasize them to learn maximum conceptual and technical skills that might be beneficial during intervention with community as whole for reduction of malnutrition and stunting in Sindh province. He also shared community driven development approach with NARC team consisting administration and faculty from various institutes. He further



provide overview that Programme for Improved Nutrition in Sindh is aimed at reduction of malnutrition and stunting rate in Sindh province, hence RSPN in collaboration with Accelerated Action Plan [AAP] and Rural Support Programmes are implementing the PINS in ten districts of Sindh province and acknowledged that PINS is funded by the European Union.

However, he stressed participants to captivate maximum KSAs from this workshop and learn practical models regarding agriculture, kitchen gardening, livestock and poultry management based on the modern scientific approach that could be used at household level for better livelihood.

Mr. Nadeem Amjad, Director General Pakistan Agriculture Research Council welcomed the participants and valued RSPN and its implementing RSPs' efforts to implement such programmes with objective of reduction of malnutrition and stunting rate in Sindh province. He conversed that role of PARC, NARC and API is commendable in the field of research and development in agriculture, livestock and poultry sector in the country. He revealed that PARC / NARC / API is focusing on research and development in agriculture sector of the Pakistan economy, and cherished the role of NARC and its institutes / research station network in Pakistan from GB to Thatta & Gwadar.

He further appreciated Rural Support Programme Network and its stakeholders for launching such a programme with broad objective of reduction of malnutrition and stunting rate in ten districts of Sindh; He also directed administration of the NARC and API for providing conducive learning environment with practical demonstration on different components of agriculture sector to participants and engage professional instructors and experts for imparting maximum skills and knowledge on the thematic areas. In last he show gratitude to participants and wish them best of luck ahead.



Background & Introduction to the training

Rural Support Programme Network – RSPN and ACF initiated coordination with Pakistan Agriculture Research Council / National Agriculture Research Centre NARC for organizing a **Training of Trainers for RSPs Staff and Government Officials on Kitchen Gardening and Improved Crop Production Technology, Livestock and poultry management** at Agriculture Ploy-Technique Institute Islamabad. The National Agriculture Research Centre agreed to organize an Eight-day Training of Lead Trainers for RSPs and Government officials at Regional Training Centre of National Agriculture Research Centre (NARC) Islamabad. The purpose of the training is to develop a cadre of master trainers consists of RSPs staff and government officials on Kitchen Gardening, Livestock and poultry management. The training event was divided into two batches and eight days class room lectures followed by on site demonstrations and practical work were scheduled.



RSPN & ACF team members also planned to schedule a visit to Arid Agriculture University for trainee participants in order to be briefed about various varieties of fruits and vegetables grown at low cost indigenous solutions along with rain harvesting technology. The Farm Manager Arid Agriculture University was requested to deliver a brief and concrete presentation on off season cultivation and low cost solution to crop productivity, small reservoirs, rain fed crops and rain harvesting models.

Agriculture officers from Accelerated Action Plan (AAP) departments, Government of Sindh invited to participate in the eight days training workshop. AAP has nominated ten agriculture officer possessing required qualification along with hands-on experience in the field since substantial number of years for eighth days training on kitchen gardening, livestock and poultry management.

Training Objectives and Individual Pre-Test

- To train the participants on curricula based modules on Kitchen Gardening, Livestock and poultry management,
- To acquire and synthesize available information on agricultural technologies, and attain on site learning on kitchen gardening.
- To provide exposure to participants on agriculture models related to rain harvesting and low cost indigenous cultivation at HHs level.
- The participants further transfer the learned KSAs while rolling out activities at community level.

Individual Pre-Test

The facilitator distributed a format to pre-test the knowledge, skills and aptitudes of the participants and guided them to respond on the given template to the best of their abilities. The purpose of the pre-test was to analyse the conceptual understanding of the participants regarding **“Kitchen Gardening, Livestock and Poultry Management along with FFS”**, so that the facilitator formulate a customized strategy for session delivery in better and appreciative manner. The template was in Urdu language and easily understandable for all the participants.

Training Workshop Proceeding

Day 1: Livestock Management:

The first day of this 8-day TOT started with inaugural ceremony participated by RSPN, NRSP, NARC and API officials, the event hosted by Mr. Muhammad Anwar, Director - Agriculture Ploy-Technique Institute Islamabad. He introduced his team and familiarized the NARC and API as whole.

After a formal inaugural ceremony, Dr. Muhammad Iqbal Anjum, Principal Scientific Officer - API instigated the session on livestock management and said that Livestock are natural factories to convert roughage (grasses, shrubs, etc.) into quality-food i.e. milk and meat. It is an established nutritional fact that animal proteins are superior to vegetable proteins for the supply of essential amino acids. Livestock also provide raw material for industries and create markets and capital. For a large population of rural household in rain-fed agricultural production system, livestock provide security against crop-failure. For the poor in the villages, it is a form of social security, cashing it at the time of need. Livestock are also used in sports and entertainment and are also considered a symbol of prestige in certain areas of Pakistan.



Livestock is an important sub-sector of agriculture and accounts for 37.5 percent of agricultural value-addition and about 9.4% of the Pakistan GDP. Its net foreign exchange earnings were approximately 53 billion rupees, which is almost 12.3% of all the export earnings of the country. Livestock sector provides employment to a large number of rural households

Dr. Ajnum deliver a concrete presentations and interactive activities on modules such as general animal well-being, breeds common to certain areas, animal vaccination among others. The instructor discussed that general features of the goat breed,

- Family: ***Bovidae***.
- Scientific name: ***Capra Hircus***.
- Size: ***Medium***
- Purpose: Meat & Hair Production and some produce considerable amount of milk but none breed has been developed as dairy breed.

The goat breeds' further classify into various classes and discuss the features in connection with preferred areas i.e. northern area & AJK, KPK, Punjab, Sindh and Baluchistan. The breeds include Baltistani, Beiari, Buchi, Desi / Jattal, Jarakheil, Kooti, Labri, Pamiri, Shurri, Damani, Gaddi, Kaghani, Beetal, Dera Din Panah, Kajli, Pahari, Nachi, Potohari, Teddy, Khraani, Lehri, Barri, Bugri, Chappar, Jattan, Kamori, Pateri, Tapri and Thari. The participants took interest and asked scientific officers to propose the breed that could meet the nutritional needs of the PLWS / CU5.



Presentation / class room discussion followed by on site visit where participants were briefed about goat shed / buffalo shed; facilities, silage, diseases, curative measures, vaccinations and environment preferred for each breed. The facilitator(s) proposed pateri and kamori for Sindh region specifically for intervened district under PINS programme.



Day 2: Poultry Management

The second day of Training of trainers on Kitchen Gardening, Poultry and Livestock management started with recitation of Holy Quran, followed by recap of the first day; facilitated by Zaheer Ahmed Capacity Building Officer PINS - RSPN. Mr. Muzaffar Ali Khan, Scientific Officer conducted introductory session;

- Classification of Domestic Birds,
- Housing, and space requirements
- Brooding & Incubation
- Feeding & Rearing
- Breeding Season
- Feed formulation
- Egg & Meat production
- Broiler & Weather Management and control shed
- Biosecurity
- Poultry vices and disinfection techniques
- Viral Diseases, Bacterial Diseases & Vaccination

The participants were taken to coop facilities where they were given a demonstration on brooding and housing of birds and had modules covering health including diseases common to poultry.



Dr. Nomina Anis, Nutritional Expert, FAO also conducted a session on nutrition and how its provision changes with age. She also distributed charts pertaining healthy nutrition in accordance with age & height. She had healthy discussion with field teams and encourage them to incorporate the learnings in their mobilisation efforts for better results in consequence of PINS interventions.



Day 3: Field Farmer School & Kitchen Gardening; an Introduction

Third day of training of trainers started with recitation of Holy Quran and recap of the last session. Dr. Tahira Yasmin, from Pakistan Agriculture Research Council's Department of Plant and Environmental Protection conducted an introductory session on the Farmer Field Schools and discussed its implementation and potential issues that Village Organisation level agriculture entrepreneurs.

Dr. Tahira Yasmin possessed vast experience in the field of agriculture and familiar with climatic conditions of the Sindh province, she remained focused in her discussion w.r.t farmer field schools in perspective of Sindh. She discussed FFS approach with conceptual method and brainstorm the pragmatic issues relevant to FFS such as;



- Pesticide & its types,
- Effects of pest on human health,
- Pesticide classification as per UN guidelines,
- Precautionary measures, Storage & Disposal,
- FFS as approach to rural development, Principles & Objectives
- Methodology
- How FFS works at community level
- Agro-eco system analysis
- National IPM Programme
- Scope for women field schools

Dr. Yasmin remained interactive and participative in her session and formulate session plan with physical activities, brain games, dialogues & demonstration and content oriented.



Mr. Bashir Anjum, Specialist- Social Sector at the Rural Support Programmes Network (RSPN) Pakistan was also present where he urged participants to maximize their learning at this workshop to ensure stronger replication. These participants will replicate this training at field level in the coming months under the European Union in Pakistan-funded Programme for Improved Nutrition in Sindh across the targeted 10 districts.

Mr. Anjum also shared specific objectives of the programme with NARC team for better session planning and delivery, further he emphasized participants to spend maximum time on site learning with innovative models articulated by NARC at its research stations to replicate these low cost solutions while programme implementation.



Dr. Ghulam Jilani, Principal Scientific Officer Executive Director Vegetables Programme, Horticultural Research Institute, NARC then led a session and describe the objectives of the session;

- To create awareness about kitchen gardening.
- To improve skills for growing fresh and safe vegetables without use of any pesticide.
- To provide complete set of production technology including quality seedlings and potted plants of summer and winter vegetables.

Further Mr. Jelani deliver a brief session on importance and classification of vegetables. He emphasized following topics:

Importance of vegetables;

- Necessary part of diet
- Essential minerals are present
- Extensive amount of fibre content
- Easily digestible
- Can be eaten as raw or as cooked

Classification of vegetables;

Winter vegetables includes Cabbage, cauliflower, lettuce, coriander, spinach, radish, carrot, sweet potato (shakar qandi), sugar beet, peas, garlic, onion, methi, broccoli, parsely,celery and best sowing time is from September – October to February to March.

Summer vegetables include Brinjal, cucumber, tomato, chillies, bitter gourd, arum, pumpkin, water & musk melon, chappan kaddu, tori, teenda and best sowing season is from February – March to September – October.

Off-season Cultivation tomato, cucumber, chillies and summer vegetables.

Mode of Cultivation:

1. Direct seed

Radish, carrot, spinach, coriander, peas, okra, bittergourd, cucumber, watermelon, musk melon, methi etc.

2. Seedlings:

Tomato, chillies, shimla mirch, brinjal, cabbage, cauliflower, broccoli, parsely, celery, lettuce and onion.

3. Through vegetative parts

Potato, arum, garlic, turmeric, mint



Day 4: Kitchen Gardening, Vegetable & Crop Management / Soil & Compost preparation

Dr. Muhammad Mazhar Hussain, Scientific Officer - Vegetable Crop Research Program, HRI NARC Islamabad assigned to deliver a session on aforementioned themes. Dr. Hussain had detailed session on the fertilizers and pre / post-harvest handling, soil testing and its approaches including field observations, on site measurement and laboratory measurement. Further Dr. Husaain discussed types of soil i.e. sandy soil, clay soil and loamy soil in details and its practical implications for sowing seedling and direct sowing. The special focus was done on the following contents as well;



- Plant nutrients; essential nutrients including micronutrients and macronutrients,
- Soil Ph management,
- Improvement of soil with green manure,
- Competing uses of crop residues,
- Green manure crops,
- Electrical conductivity; normal, critical & problematic
- Why apply fertilizer
- Role of nutrients in plants
- Role of organic matter
- Nitrogen deficiency, phosphorus deficiency & Potassium deficiency
- Magnesium & Zinc deficiency
- Pre / post-harvest handling
 - Insect Pest Management
 - In time irrigations
 - Timely Fertilizers
 - Ripening Stages

- Mechanical Problems



Mr. Muhammad Zakria Farid, Research Fellow - HRI NARC conducted a session on composting a nature's way of recycling / biological process of breaking up of organic waste, a way from garbage to garden. He further discuss that the decomposition of organic material is a process that returns valuable nutrients to the soil for plants to use. Composting is a tool that allows us to control and accelerate this natural process. Invertebrates (insects and earthworms), and microorganisms (bacteria and fungi) help in this break down. He orient participants theoretically about compost ingredients i.e. fruit & vegetable scraps, eggshells, leaves, grass clippings, garden plants, shrub pruning, straw or hay and green Leaves. Mr. Zakria also discussed types of composting including pit composting / pile or heap composting along with phases of composting. Further content covered in the session was;

- Uses of composting,
- Media / Compost Sterilization



The theoretical session followed by on site demonstration and practical work pertaining to soil mixture, preparation of soil and manure for seedling as well as direct sowing. The participants were very energetic and enthusiastic for learning technical skills regardless of hot weather.

Day 5: Kitchen Gardening; Nursery raising & Vegetable cultivation as Business

The fifth day of the training of trainer is started with recitation of Holy Quran and recap of the last session interactively. Mr. Humayoun Khan, Principal Scientific Officer – Vegetable Crop section HRI –NARC conducted sessions on Nursery Raising on raised seed bed, poly tubes & trays for seasonal and off season. The main content of session was included;

- Importance of Seed,
- Healthy Seed (free from insect / disease),
- Germination,
- Source of seed / Inheritance,
- Suitable variety / hybrid,
- Genotypes for marketing,
- Seed soaking for germination,

- Preparation of seed for sowing,
- Various types of nursery raising, for off season vegetable crops

In connection with aforementioned topics, Mr. Humayoun Khan also discussed marketing for seedlings for kitchen gardeners, farms in peri urban areas and vegetable growers. He also discussed the vegetable calendar and optimum germination.



Day 6: Kitchen Gardening; POT CULTURE

The sixth day of training of trainers started with recitation of Holy Quran, followed by a thirty minutes recap session; Dr. Ghulam Jelani, Principal Scientific Officer / Executive Director HRI – NARC accompanied Mr. Sultan Mahmood, Scientific Officer Vegetables at the Horticulture Research Institute on compost preparation and its usage, participants then headed out for a practical demonstration where they first learned how to prepare the compost for pot and container sowing. The further theoretical concepts discussed were;

- Introduction and scope of pot culture
- Seasonal & Off season vegetables suitable for pot culture
- Suitable structure for sowing; earthen / plastic pots, jute bags and old buckets / tins etc.
- Soil Media and pot filling; preparation of soil media / compost with ratio of 3:1:2
- Seed sowing and transplantation
- Pruning / Training / Staking
- Irrigation for pot culture / Drip irrigation
- Important points to be considered for pot culture.



Dr. Mazhar Hussain to the field where they prepared compost and seedling trays under his direction. Participants then prepared and planted tomatoes after a brief session with Dr. Ghulam Jelani.

Day 7:

The seventh day of the training of trainers on Kitchen Gardening, Poultry and Livestock Management started with the recitation of Holy Quran and recap of the previous session. Dr. Hidayatullah, Principal Scientific Officer Vegetables - HRI NARC led a session on Care of Plants; He started his session with brainstorming with participants about care of plants and indigenous methods and practices at community level and associate the contents with scientific approach and deliver a concrete presentation on following aspects;

- Mulching
- Thinning
- Pruning
- Stacking
- Fertilizer application
- Weeding
- Hoeing
- Irrigation
- Harvesting.

Dr. Hidayatullah discussed in details the organic and inorganic mulching and its application and usage for healthy crops and maximum cultivation. He also discoursed that seed selection is also an important aspect for crop care and productivity. Moreover, he conversed that thinning process is widely used for saving seedlings and remove excess plants, weeds, hoes, and said that Seedlings of some vegetables, if carefully removed during thinning, can be transplanted and used to fill in empty places, to expand your planting, or be shared with other gardeners.

Dr. Noshier Nobel Nawab, Principal Scientific Officer HRI – NARC conducted session on the onion production technology and briefed participants about varieties of onions, season & off season cultivation, land preparation, seedlings, loam soil with better drainage, cultural practices, irrigation, hoeing / weeding, blub formation, storage, inspect pest & Thrips, onion diseases and its curative techniques.

Day 8:

The Training of Trainers on Kitchen Gardening, Poultry and Livestock Management came to a final close with a certificate distribution ceremony which was host to lots of special guests including Ms. Vivien Rigler a representative from the EU, Ms. Shandana Khan, CEO, Rural Support Programmes Network (RSPN) Pakistan, Mr. Khaleel Tetlay, COO, RSPN and Mr. Malik Fateh Khan, CEO, Ghazi Barotha Taraqiati Idara, Ms. Jennifer Ankron-Khan, Country Director, Action Against Hunger and Mr. Ghulam Muhammed Ali, Director General, NARC Islamabad.

The closing ceremony hosted by Mr. Rao Ayub, Technical Manager Agriculture – ACF and Mr. Zaheer Ahmed, Capacity Building Officer – RSPN. The event was started with recitation of Holy Quran, and Ms. Uzma recited some verses and event started formally. Mr. Khaleel Tetlay, COO - RSPN called upon for welcome note.

Participants of this 8-day long workshop shared their learning experiences and how they plan to use the knowledge and skills they've gained over the past two weeks once they go back to the field. Everyone also agreed that the field demonstrations were the highlight of the training especially where they got to prep the land and plant seedlings.

Mr. Khaleel Tetlay addressed to participants and thanked all the distinguished guests. He congratulate the trainee participants for completing 8 days extensive training on Kitchen Gardening, Poultry and Livestock management with practical skills and conceptual knowledge along with scientific approach towards agriculture. As a trainee you have grasped knowledge and skills from such an experienced and professional faculty of Agriculture Poly-Technique Institute - NARC, now you have the opportunity to exchange learned KSAs at community level while implementing PINS activities; Through well-structured and guided training, you will improve your knowledge of agri. crop technology, and increase your understanding of scientific approach in selection of seeds, preparation of seedlings, nursery raising, vegetable cultivation at household level and its impacts on livelihood of the community. He relate the training objectives with the goal of reduction of malnutrition and stunting rate in Sindh.

Mr. Malik Fateh Khan, CEO, Ghazi Barotha Taraqiati Idara invited to speak out in the event, and shared his feelings that participants from RSPs from Sindh province received training at NARC such a specialised institution under qualified and experienced faculty with on-site demonstrations and practical learning. He further expressed his gratitude for transfer of knowledge to community level.

Mr. Agha Jawad, General Manager - National Rural Support Programme named for speech, and opportunely addressed that he is so excited to see field teas from Sindh province and extended contentment of mechanism of the training of trainers. He further said that NRSP have vast expectations in its field teams as these are the backbone of the programme whose success is the only achievement of organization. He also highlighted the importance of PINS programme specifically for RSPN / RSPs and broader goal for reduction of malnutrition and stunting rate in Sindh. He advised the participants to rollout these training at community level immediately with specific objective and goals to improve the nutritional needs of community specifically for PLWs and CU5. He in last thanked NARC management for their enthusiasm and commitment towards community building.



Dr. Ghulam Muhammad Ali, Director General - NARC invited to have some words pertaining to training participants in occasion of certificate ceremony. Dr. GM Ali thanked RSPN and ACF for coordination and scheduling such a learning / capacity building event at NARC, and updated the institutional scientific achievements and scope of work relevant to agriculture, poultry and livestock with the audience. He also shared recent developments in the NARC, API, HRI and NIGAB and facilities and modern technology; besides he also discussed the partnership of NARC / PARC with Rural Support Programmes / Organizations & Institutions working on community development and international agri. Research institutions and agencies. He also shared the PARC / NARC historical performance and encouraged the partnerships from EU and other donor international agencies for joint collaboration on various agriculture related projects. In the last he appreciated the efforts of faculty of API / HRI NARC for their dedication and learning environment for trainee participants.



Ms. Vivien Rigler, Team Leader, RDEC, European Union Delegation to Pakistan during her speech expressed her feelings that launching the European Union-funded 'Programme for Improved Nutrition in Sindh' (PINS), malnutrition had become a major issue for the province and only sincere and concerted efforts could control the situation. EU in collaboration with the government was committed to taking up these challenges on a priority basis, she said while addressing the certification ceremony of the Training of trainers on Kitchen Gardening scheduled at NIGAB – NARC Islamabad. She further said that "Support to improve nutrition status in Sindh is part of EU's global commitment to reduce stunting at global level," and "Our objective is to reduce stunting at least by seven million children around the world by 2025." She appreciated the efforts of Rural Support Programmes Network, National Rural Support Programme, Sindh Rural Support Organisation and Thardeep Rural Development Programme, with Action Against Hunger and Conseil Sante as programme partners for implementing the programme in collaboration with Government of Sindh. She showed gratitude for the participants for participating the training and further rollout these learning / experiences at community level at large. She praised the participants' enthusiasm and commitments towards community welfare at large. In conclusion remarks she thanked all the stakeholders and their contribution at broader level.



Ms. Shandana Khan, CEO - RSPN called upon for conclusion remarks, she expressed gratitude and satisfaction from the NARC management for facilitating the training of trainers. She appreciated the participants for active involvement / immersion throughout the event. She advised the RSPs staff for carefully trickle down training at community level in connection with PINS document. She expressed appreciation for maximum participation of women in the training, who further led the activities in the field / targeted districts. She also thanked Ms. Viven Rigler for her presence and kind views pertaining to training. She also acknowledged the efforts of RSPN's & ACF's organizing team and wish them all the best for future interventions.



Highlights of Exposure Visits (Arid Agriculture University – Muree Vegetable Farm) / Meeting with RSPN Core team and Chirah Local Support Organization:

Brief Meeting with Mr. Khaleel Tetlay, COO RSPN:

First batch will be given an opportunity to visit RSPN / NRSP head office and had a brief meeting / session; Mr. Khaleel Tetlay, COO RSPN initiated discussion with RSPs staff specifically field staff on PINS interventions, he further discussed in detail the performance chain from Head Office level to regional office - PMU PINS ER3 and also briefed on following topics;

Performance: Advance planning

Systems: Finance, procurement, marketing HR – Auditor – If we want increase performance you need to have advance planning

- Weekly Planning
- HO Level
- Regional Office
- District Office
- Field Office

Positives and negatives

Why females should come forward for implementation

Documentation: MOVs at each level field level, district level, and regional level to Head office level.

Maintain documentation properly – Documentation management and its accessibility –

Communication – various target groups for AAP different pattern, custom message for each target group

- Example: EU Development days – Gul Bibi – community representation – perception about visibility – communication strategy for effective visibility.
- Quality – Quantity – Timeliness leads to effective performance
- Read project document

Future – career & personal growth – visionary for career – become successful professional

Brief Meeting with Mr. Bashir Anjum, Special Social Sector - RSPN:

- PINS understanding to PMs of SUCCESS
- Update programme activities to SUCCESS official and enhance coordination level
- LSOs bank account opening is mandatory integration with SUCCESS and PINS
- Coordination with multi-stakeholders should be at large.



Farmer Field School (FFS)

What is FFS?

We must stick with project document for FFS approach.

Conceptual clarity on FFS and FFS approach – Planning for FFS – consider 10 COs for FFS

Take in writing from SUCCESS PMs that total number of VOs formed in the LSOs

FFS Approach:

- Specify location for FFS with consensus of LSO, specify should be appropriate for women / men seating. A place where farmers (Male / Female) could be participate in the discussion / sessions.
- FFS is main intervention that could leads towards success of PINS programme – practical / field space will be as per FAO designated plots / lands.
- For FFS groups will be divided into three segments i.e. Kitchen Gardening, Livestock and Poultry Managements.
- For seedling the VOs will decide the nominal price as FFS members willing to sale excess quantity.
- Sessions will be conducted for three months, same group members will be attending the session till end then new group will be identified for the new sessions.

Guideline for FFS intervention as ToT completed at NARC:

- How to grow nursery in field? You need to learn practical skills regarding nursery – land preparation, seed sowing, watering / irrigation and insectary etc.
- Use local and low cost material for tunnel farming.
- Prices of seedlings will be decided by VOs with consensus.
- Practice the learning in field with farmers.
- Excess vegetables will be sold among community level at reasonable price.
- Inputs will be provided to farmers.
- Compost making / organic method will be followed

Exposure visit of Arid Agriculture University Rawalpindi

First batch has given an opportunity to visit Arid Agriculture University Rawalpindi, the team have been briefed about the research facilities available at University by Dr. Muhammad Inam and also had a get together with research scholars who in supervision of professors of university working on various thesis and projects for agriculture products.



After university visit, the team have been departed for visit of University Research Farm Koont Rawalpindi. Dr. Adeel Anwar, Deputy Director Farm accompanied farm supervisor delivered a detailed presentation on following topics;

- Rainwater harvesting technology
- Crops / fruits growing under low water conditions

After presentation, the participants have been given a detailed tour of the farm with necessary technical briefing. After exposure visit team moved backed to Islamabad.



Batch 2 – Experience Visit – 4th to 5th August NRSP Regional Office, Murree

On the first day of the experience visit, participants of batch 2 were taken to NRSP's regional office in Murree where after a round of introductions, they members of the LSO Charah, Islamabad presented their work on how their collective efforts on kitchen gardening across 52 households is helping to bring change in the lives in their community.

They spoke of how referring to NARC, they were able to procure seeds to increase the access to vegetable and in turn a more diverse diet. This also resulted in dissemination of vital information that helped unite the community even more as they not only put kitchen gardens as well as encouraged others who were yet to do so. As their interest grew, so did their eagerness where they went out of their way to contact authorities like NARC for things like compost? Within a few months, around 70% of the LSO had their personal kitchen garden. This also led them to experiment further, where they employed creative ways of planting like using milk bottles.



Seeing the benefits of all these efforts also mobilized them to make a structured plan for the coming year which is a resounding success for the community to come together like that.

At the end of the presentation, Shagufta, a member of the LSO presented on how having a kitchen garden not only eased her access to different vegetables that she previously had not utilized in her cooking, she also used it to earn a living. Shagufta used her surplus to experiment in different types of pickles that she sent out members of the LSO to sample. Her pickles proved to be quite a hit and from encouragement from her community, she started selling jars in weekly gatherings and in the market which further encouraged community members to adopt kitchen gardening.

Hill Fruit Research Station, Sunny Bank Murree

On the second day of the experience visit, participants visited Hill Fruit Research Station, Sunny Bank Murree,



where Dr. Muhammed Afzal, Lead Horticulturist spoke of the different varieties that his team and he are working on and what the process of cultivating relatively new crops look like to increase the varieties available nationally.

He then gave a tour of the grounds at the Research station, going through the

different varieties that are currently being experimented on including 25 varieties of apples, persimmons and other fruits. The highlight of the visit, however, was the cultivation of more exotic plants such as avocados and pecans which are not cultivated, let alone widely available commercially. Dr Afzal spoke of how these were a part of a diplomatic exchange which is being put to good use to further their access to more people across Pakistan, given that they are available commercially but in limited quantities and very expensive given the high rates associated with importing them from countries like America.

Conclusion / Closing Remarks & Certificate Distribution

First and the second round of the Training of Trainers on Kitchen Gardening and Livestock and Poultry Management came to a close with a certificate distribution ceremony held at NIGAB at the National Agricultural Research Centre.

After conducting a post-training assessment on the topics covered over the 8-day training, Mr. Rao Ayub, Technical Agriculture Manager, Action Against Hunger, hosted the closing ceremony that included special guests Ms. Caterina Alari, KPCDLD, EU and Rural Support Programmes Network (RSPN) Pakistan's COO, Mr. Khaleel Tetlay and Manager, Special Projects, Mr. Bashir Anjum.

After opening remarks from Mr. Ghulam Mohammed Ali, Director General, NARC, participants shared their experiences of the training and how they are going to ensure that they are implemented in the field. Ms. Caterina Alari then addressed the participants, stressing the importance of training in the work being carried as part of the Programme for Improved Nutrition in Sindh. She also spoke of the EU's efforts in Sindh, and how we all have to work towards ensuring that malnutrition is reduced from the current alarming rates, making this intervention an example for others to follow. Mr. Tetlay, too, emphasized on the importance of working together, and encouraged on strengthening partnership with the Government of Sindh to ensure success.

Participants were then awarded certificates of participation along with a booklet compiled by the NARC on the sessions covered during the training.

The event was concluded and all the honourable guests were requested to come forward and distribute the certificates of participation to successful trainee participants. The pictorial glimpse is as under;





Post-Test and Training evaluation / Feedback

In order to evaluate the pre & post training knowledge of the participants, the NARC facilitator(s) provided a format consists of questions / objective statements for assessment. The participants fill in the form carefully and submitted for score evaluation. Following table showing the pre and post training score of each individual attended the training.

PRE & POST EVALUATION RESULT

Sr.#	Name	Pre-Evaluation		Post Evaluation		Remarks
		Total Marks	Marks Obtained	Total Marks	Marks Obtained	
1.	Naseem Akhtar	50	24	50	46	
2.	Aneela	50	31	50	48	
3.	Afshan Khwaja	50	29	50	45	
4.	Muhammad Ismail	50	30	50	42	
5.	Sana Rasheed	50	37	50	40	
6.	Uzma	50	24	50	44	
7.	Shahneela Noor	50	12	50	42	
8.	Zahida Parveen	50	23	50	46	
9.	Ghulam Murtaza	50	37	50	40	
10.	Rukhsana	50	23	50	46	
11.	Ali Nawaz	50	31	50	42	
12.	Naseema Chohan	50	25	50	42	
13.	Abdul Aleem	50	25	50	44	
14.	Mehboob	50	31	50	42	
15.	Syed Aftab Shah	50	33	50		Not given
16.	Khalida Soomro	50	27	50	44	
17.	Kanwal Baloch	50	26	50	44	
18.	Ghulam Hussain	50	21	50	44	

19.	Jameel Ahmad	50	30	50	42	
20.	Ali Muhammad	50	26	50	42	
21.	Atta-ur-Rahman	50	31	50	46	
22.	Saira Memon	50	31	50	42	
23.	Sikandar Ali	50	33	50	40	
24.	Nazar Hussain	50	34	50	44	
25.	Khuda Bakhsh	50	30	50	42	
26.	Gul Sher	50	25	50	42	
27.	Waryam Baloch	50	17	50	42	
28.	Khalid Usman	50	31	50	46	
29.	Waseem Akhtar	50	31	50	46	
30.	Ighmaz Qureshi	50	25	50	46	
31.	Somal Arbab	50	16	50	46	
32.	Samsan	50	16	50	42	
33.	Balqees	50	37	50	46	
34.	Sobia	50	23	50	48	
35.	Shabroz	50	31	50	45	
36.	Ambreen	50	25	50	42	
37.	Fozia Junejo	50	25	50	40	
38.	Fozia Sloangi	50	31	50	44	
39.	Uzma Panhwar	50	33	50	42	
40.	Parveen Mahar	50	27	50	46	
41.	Mahira Soomro	50	26	50	40	
42.	Ali Muhammad Soomro	50	21	50	46	
43.	Abdul Rauf Magsi	50	30	50	42	
44.	Manthar Ali Panhwar	50	26	50	42	
45.	Mazhar Ali	50	31	50	44	
46.	Riaz Ahmed	50	31	50	42	
47.	Musawar Ali Gadhi	50	33	50	44	
48.	Junaid Hussain Jatoi	50	34	50	42	
49.	Muhammad Salman	50	30	50	46	
50.	Aslam Parvez	50	31	50	40	
51.	Din Muhammad Baloch	50	31	50	46	
52.	Badar - Uddin	50	33	50	42	
53.	Mumtaz Ali Malik	50	34	50	42	
54.	Ahmed Khatti	50	30	50	44	
55.	Muhammad Saleem	50	25	50	42	
56.	Mir Sohail Talpur	50	31	50	42	
57.	Ali Muhammad Soomro	50	33	50	42	

Training Evaluation / Feedback

A total of 58 participants from all Rural Support Programmes i.e. NRSP, TRDP, SRSO and Govt. officials provided feedback on the Training workshop by filling the Participant's Feedback Form. The summary of feedback provided against each set criteria statements is depicted in the below given table.

Criteria Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total (N=32)
The objectives of the orientation were clearly defined	78%	10%	12%	0%	0%	100%
Participation and Interaction were encouraged	83%	15%	0%	2%	0%	100%
Topics covered (course content) were relevant and appropriate with practical implications of concepts	91%	9%	0%	0%	0%	100%
Content was organized and easy to follow	89%	9%	2%	0%	0%	100%
Materials distributed were useful and sufficient for the participants	68%	24%	6%	1%	1%	100%
The facilitators(s) were knowledgeable about the training topics	71%	29%	0%	0%	0%	100%
The participant(s) were well prepared	88%	12%	0%	0%	0%	100%
The training of trainers' objectives were met	98%	2%	0%	0%	0%	100%
Time allotted for the training was sufficient	95%	3%	2%	0%	0%	100%
Institutional (NARC) facilities were adequate and comfortable	94%	6%	0%	0%	0%	100%
Do you think you can effectively use the skills/information from the ToT in your work?	100%	0%	0%	0%	0%	100%
Do you think that your personal learning objectives have been achieved?	42%	47%	5%	5%	0%	100%
Do you think that practical skills / exposure visits enhanced your KSAs for field activities?	93%	6%	1%	0%	0%	100%

On the basis of above the participant's feedback, the below areas of improvement are recommended for future capacity building events / training workshops.

Time Management:

As per feedback form the participants suggested that training time should started from 09:00 am rather 08:30 am morning and time allocated for lecture delivery is sufficient, although due to distant sites time for practical should be increased.

Provision of Relevant and Useful Material:

Although the majority of the participants agreed that the material provided in workshop were useful and relevant, however a significant percentage of them either remain neutral or even strongly disagreed with this statement. Therefore, it is recommended that usefulness and relevance of the material to be provided in the future and trainings should be thoroughly reviewed.

Facilitation and Encouragement of the Participant's Participation and Interaction:

The majority of participants either just agreed or remained neutral while rating that participation and interaction were encouraged in the workshop. Therefore, it is recommended that the participations and interaction of participants should be adequately encouraged. Moreover, the preparation of facilitators should be exceptional.

Content Organization and its Delivery:

The feedback of participants as shown in the above table suggest that the organization and delivery of the content of can be improved further making it easier for the participants to follow it.

Annex A: Batch-I (List of Participants)

Sr#	Name of Participant	Designation	PMU / PIU / District
1	Nazar Hussain Joyo	Project Manager	NRSP PIU-Hyderabad
2	Ighmaz Qureshi	M&E Assistant	NRSP PIU-Hyderabad
3	Sikandar Ali	District Project Officer	NRSP DIU Sujawal
4	Abdul Aleem	AFS Officer	NRSP DIU Sujawal
5	Rukhsana Samoon	Female Community Nutrition Officer	NRSP DIU Sujawal
6	Naseema Choochan	Female Community Nutrition Officer	NRSP DIU Sujawal
7	Ghulam Murtaza Lashari	District Project Officer	NRSP DIU Thatta
8	Muhammad Ismail Ahmdani	AFS Officer	NRSP DIU Thatta
9	Sana Rasheed	Female Community Nutrition Officer	NRSP DIU Thatta
10	Afshan Khuwaja	Female Community Nutrition Officer	NRSP DIU Thatta
11	Ali Nawaz Lakho	District Project Officer	NRSP DIU Matiari
12	Syed Aftab Shah	AFS Officer	NRSP DIU Matiari
13	Soomal Arbab	Female Community Nutrition Officer	NRSP DIU Matiari
14	Shahnila Noor	Female Community Nutrition Officer	NRSP DIU Matiari
15	Waseem Akhtar Khatri	District Project Officer	NRSP DIU TMK
16	Jamil Ahmed	AFS Officer	NRSP DIU TMK
17	Khalida Soomro	Female Community Nutrition Officer	NRSP DIU TMK
18	Kanwal Baloch	Female Community Nutrition Officer	NRSP DIU TMK
19	Mahboob Jarwar	District Project Officer	NRSP DIU TAY
20	Anila Ghandahi	AFS Officer	NRSP DIU TAY
21	Zahida Parveen	Female Community Nutrition Officer	NRSP DIU TAY
22	Naseem Akhtar	Female Community Nutrition Officer	NRSP DIU TAY
23	Ali Mohammad Kallar	Project Manager	TRDP PIU-Jamshoro
24	Waryam Baloch	District Project Officer	TRDP DIU Jamshoro
25	Ms. Uzma	CNO (F)	TRDP DIU Jamshoro
26	Khuda Bux Babar	CNO (M)	TRDP DIU Jamshoro
27	Khalid Usman Shar	Agriculture Food Security Officer	TRDP DIU Jamshoro
28	Gulsher Panhwar	D.P.O	TRDP DIU Dadu
29	Shumaila Jamali	CNO (F)	TRDP DIU Dadu
30	Ghulam Hussain Rodnani	CNO (M)	TRDP DIU Dadu
32	Saira Memon	Monitoring Assistant	TRDP PIU-Jamshoro
33	Muhammad Akbar Raza	Programme Director	PINS PMU RSPN Karachi
34	Zaheer Ahmed	Capacity Building Officer	PINS PMU RSPN Karachi
35	Arfat Majeed	PM SSS	NRSP
36	Mehreen Zehra	SPO - ENRM	NRSP
37	Rao Ayub Khan	Technical Agriculture Manager	ACF
38	Khaleel Tatley	COO	RSPN
39	Dr. Nadeem Amjad	DG	NARC

Annex A: Batch-II (List of Participants)

Sr#	Name of Participant	Designation	Organization
1	Balqees	Female Community Nutrition Officer	SRSO
2	Sobia	Female Community Nutrition Officer	SRSO
3	Shabroz	Female Community Nutrition Officer	SRSO
4	Ambreen	Female Community Nutrition Officer	SRSO
5	Fozia Junejo	Female Community Nutrition Officer	SRSO
6	Fozia Sloangi	Female Community Nutrition Officer	SRSO
7	Uzma Panhwar	Agriculture Officer	TRDP
8	Parveen Mahar	District Project Officer	SRSO
9	Mahira Soomro	M&E Assistant	SRSO
10	Ali Muhammad Soomro	Agriculture Officer	SRSO
11	Abdul Rauf Magsi	Deputy Director Agriculture	Agri. Extension
12	Manthar Ali Panhwar	Deputy Director Agriculture	Agri. Extension
13	Mazhar Ali	District Project Officer	SRSO
14	Riaz Ahmed	District Project Officer	SRSO
15	Musawar Ali Gadhi	Agriculture Officer	SRSO
16	Junaid Hussain Jatoi	Agriculture Officer	SRSO
17	Muhammad Salman	Agriculture Officer	SRSO
18	Aslam Parvez Khanzada	Agriculture Officer	Agri. Extension
19	Din Muhammad Baloch	Agriculture Officer	Agri. Extension
20	Badar - Uddin	Agriculture Officer	Agri. Extension
21	Mumtaz Ali Malik	Agriculture Officer	Agri. Extension
22	Ahmed Khatti	Agriculture Officer	Agri. Extension
23	Muhammad Saleem	Agriculture Officer	Agri. Extension
24	Mir Sohail Talpur	Agriculture Officer	Agri. Extension
25	Ali Muhammad Soomro	Agriculture Officer	Agri. Extension
26	Dr. Muhammad Afzal	PSO	NARC
27	Muhammad Aqeel	ASO	NARC
28	Dr. Muhammad Arshad	PSO / Director	NARC
29	Dr. Zahid Hussain	PSO	NARC
30	Rabab Jafar	CO	RSPN
31	Rao Ayub Khan	STMA	ACF
32	Dr. Naseem Shaikh	DPM / SSS	
33	Dr. Abdul Khaliq	GTLO	RSPN
34	Dr. Irfana Rafique	SPO, SSS	
35	Shafia Mirza	Documentation & Communication Officer	RSPN
36	Dr. Shahid Riaz Malik	PL	NARC
37	Dr. Hafeez ur Rahman	PSO	NARC
38	Dr. Imtiaz Hussain	PSO / PL	NARC
39	Mahreen Zehra	SPO - ENRM	NRSP
40	Jamil Akhrar	PO	NRSP
41	Dr. Muhammad Iqbal	PSO	NARC
42	Faisal Ashfaq	SSO	NARC
43	Atta Ur Rahman	CD Specialist	RSPN
44	Ijaz Ali	LT	

Annex B: (List of Facilitators)

Sr#	Name of Participant	Designation	Organization
1	Muhammad Anwar	Director	PARC
2	Dr. Muhammad Iqbal Anjum	PSO / PL (LRS), ASI	ASI – NARC
3	Faisal Ishfaq	Senior Scientific Officer (LRS)	ASI – NARC
4	Muzaffar Ali Khan	Principal Scientific Officer	ASI – NARC
5	Muhammad Aqeel	Assistant Scientific Officer	NIGAB – NARC
6	Athar Habib Qazi	SSA	API – NARC
7	Aitzaz Ahsan	ASO (Animal Health)	NARC
8	Hammad Fayyaz	ASO (Animal Health)	NARC
9	Dr. Tahira Yasmin	DD Academics	PIASA NARC
10	Dr. Ghulam Jelani	Principal Scientific Officer	VCRP, HRI NARC
11	Sultan Ahmed	Scientific Officer	Veg, HRI – NARC
12	Dr. M Mazhar Hussain	Scientific Officer	Veg, HRI – NARC
13	Dr. Noshewan Nobel Nawab	Principal Scientific Officer	Veg HRI NARC
14	Dr. Hidayatullah	Principal Scientific Officer	Crop & Veg HRI NARC

Annex C (Training Agenda)

(Day one)

Time	Session	Contents & Expected Outcome	Methodology	Facilitator / RP	Session Requirements
0800 - 0810	Registration of participants / Norm Setting	The participants will register themselves on provided attendance sheet.	Attendance Sheet	API / RSPN	Attendance Sheet
0810 - 0815	Recitation from The Holy Quran	One of the Participants will recite verses from the Holy Quran	Recitation	Volunteer	
0815 - 0830	Introduction of the course	The Participants will be able to understand the course contents to be covered in 8 days of training.	Presentation / Participatory	API Team	
0830 - 0900	Brief Introduction of NARC & departments	This session will assist participants to know about the National Research Councils (NARC) and its functional departments and facilities.	Presentation / Briefing		
0900 - 1000	Livestock Management	The participants will be able to understand the livestock management at community level.	Oral Discussion / Practical		
1000 - 1030	Tea Break				
1030 -1230	Livestock Management Continue....	The participants will be able to understand the livestock management at community level.	Presentations / Practical work	API Team	
1230 -1430	Lunch & Prayer Break				
1430 - 1600	Livestock Management Continue....	The participants will be able to understand the livestock management at community level.	Presentations / Practical work	API Team	

(Day Two)

Time	Session	Contents & Expected Outcome	Methodology	Facilitator / RP	Session Requirements
0830 - 0840	Recap	The participants will be asked about the contents covered in day one	Participatory		
0840 - 1030	Poultry Management	The participants will be able to understand the Poultry Management	Oral Presentation / Practical work	API Team	
1030 - 1100	Lunch & Prayer Break				
1100 - 1300	Poultry Management Continue.....	The participants will be able to understand the Poultry Management	Presentation / Briefing	API Team	
1300 - 1430	Lunch & Prayer Break				
1430 - 1600	Poultry Management Continue....	The participants will be able to understand the livestock management at community level.	Presentations / Practical work	API Team	

(Day Three)

Time	Session	Contents & Expected Outcome	Methodology	Facilitator / RP	Session Requirements
0830 - 0840	Recap	The participants will be asked about the contents covered	Participatory		
0840 - 1030	Farmer Field Schools (FFS)	The participants will be able to understand the FFS	Oral Presentation / Practical work	Dr. Tahira API / NARC	
1030 - 1100	Tea Break				
1100 - 1300	Introduction to vegetables and its importance	The participants will be able to understand; <ul style="list-style-type: none"> ▪ Classification of vegetables ▪ Field Visit 	Presentation / Briefing	Dr. Ghulam Jelani	
1300 - 1430	Lunch & Prayer Break				
1430 - 1600	Compost and land preparation	The participants will be able to understand manure / compost and land preparation for vegetables / KG	Presentations / Practical work	Sultan Mahmood	

(Day Four)

Time	Session	Contents & Expected Outcome	Methodology	Facilitator / RP	Session Requirements
0830 - 0840	Recap	The participants will be asked about the contents covered	Participatory		
0840 - 1030	Growing Seedlings	The participants will be able to understand the	Oral Presentation / Practical work	Humayoun Khan	
1030 - 1100	Tea Break				
1100 - 1300	Vegetable cultivation / Usage of fertilizer / Harvesting	The participants will be able to understand; <ul style="list-style-type: none"> ▪ Vegetable Cultivation, ▪ Usage of different types of fertilizers ▪ Harvesting 	Presentation / Briefing	Dr. Hidayatullah	
1300 - 1430	Lunch & Prayer Break				
1430 - 1600	Vegetables insects and control	The participants will be able to understand; <ul style="list-style-type: none"> ▪ Types of insects in vegetables, ▪ Bio Control 	Presentations / Practical work	Dr. M. Mazhar Hussain	

(Day Five)

Time	Session	Contents & Expected Outcome	Methodology	Facilitator / RP	Session Requirements
0830 - 0840	Recap	The participants will be asked about the contents covered	Participatory	API / RSPN	
0840 - 1030	Vegetable entrepreneurship	The participants will be able to understand conceptual and practical aspects; <ul style="list-style-type: none"> Vegetable entrepreneurship, Vegetable seedling and off season cultivation. 	Oral Presentation / Practical work	Dr. Ghulam Jelani	
1030 - 1100	Tea Break				
1100 - 1300	Kitchen Gardening	The participants will be able to understand; <ul style="list-style-type: none"> Success stories 	Presentation / Practical work	Dr. Ghulam Jelani	
1300 - 1430	Lunch & Prayer Break				
1430 - 1600	Terrace / Pots Kitchen Gardening	The participants will be able to understand; <ul style="list-style-type: none"> Small level KG on terrace KG in flower pots 	Presentations / Practical work	Dr. M. Mazhar Hussain	

(Day Six)

Time	Session	Contents & Expected Outcome	Methodology	Facilitator / RP	Session Requirements
0830 - 0840	Recap	The participants will be asked about the contents covered	Participatory	API / RSPN	
0840 - 1030	Seed production for Rabi and Khareef Vegetables	The participants will be able to understand conceptual and practical aspects; <ul style="list-style-type: none"> Seed production for RABI Seed production for KHAREEF 	Oral Presentation / Practical work	Dr. Noshewan Nobel / Nawab	
1030 - 1100	Tea Break				
1100 - 1300	Onion cultivation	The participants will be able to understand; <ul style="list-style-type: none"> Onion cultivation in Autumn season 	Presentation / Practical work	Dr. Hidayatullah	
1300 - 1430	Lunch & Prayer Break				
1430 - 1600	Direct sowing	The participants will be able to understand; <ul style="list-style-type: none"> Direct sowing of vegetables in polythene bags / pots / land, Growth 	Presentations / Practical work	Humayoun Khan	

(Day Seven)

Time	Session	Contents & Expected Outcome	Methodology	Facilitator / RP	Session Requirements
0830 - 0840	Recap	The participants will be asked about the contents covered	Participatory	API / RSPN	
0840 - 1030	Nursery establishment	The participants will be able to understand conceptual and practical aspects; <ul style="list-style-type: none"> ▪ Nursery establishment in pots and trays ▪ Vegetable nursery entrepreneurship 	Oral Presentation / Practical work	Dr. Ghulam Jelani	
1030 - 1100	Tea Break				
1100 - 1300	Pot Culture / KG on roofs	The participants will be able to understand; <ul style="list-style-type: none"> ▪ Filling material for pots and Reuse of pots ▪ Concepts of Hydroponic 	Presentation / Practical work	Dr. Mazhar Hussain	
1300 - 1430	Lunch & Prayer Break				
1430 - 1600	Plants / Seed Supervision	The participants will be able to understand; <ul style="list-style-type: none"> ▪ Supervision of seeds / plants ▪ Mulching ▪ Layering for vertical gardening ▪ Irrigation and Weeds eradication ▪ Harvesting / Storage 	Presentations / Practical work	Dr. Ghulam Jelani	

(Day Eight)

Time	Session	Contents & Expected Outcome	Methodology	Facilitator / RP	Session Requirements
0900 - 1100	Post Test / Training Evaluation	Post-test will be conducted along with participants feedback / Training Evaluations			Formats
1100 - 1200	Closing Ceremony	Vote of Thanks Distribution of Certificates and Group Photo			Certificates

Annex D: Definition of EU

Definition of European Union: “The European Union is made up of 28 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders”.

Government of Sindh (GoS) through the Planning and Development Department (PDD) is implementing a six-year multi-sectoral Sindh Accelerated Action Plan for Reduction of Stunting and Malnutrition (AAP), with the objective of reducing stunting rate from the existing 48 percent to 40 percent by 2021. The European Union (EU), under the EU Commission Action Plan on Nutrition 2014, is supporting GoS in addressing the issue of malnutrition. Therefore, EU Brussels Office has approved the Programme for Improved Nutrition in Sindh (PINS) to be implemented in ten districts of Sindh which include Shikarpur, Thatta, Kambar Shahdaskot, Larkana, Dadu, Jamshoro, Matiari, Sajawal, Tando Allahyar and Tando Muhammad Khan.

RSPN is leading the PINS Expected Results (ER) 3 component with four partners: Action Against Hunger, National Rural Support Programme (NRSP), Sindh Rural Support Organisation (SRSO) and Thardeep Rural Development Programme (TRDP). This component includes nutrition sensitive interventions i.e. Water Sanitation and Hygiene (WASH) and Agriculture & Food Security (AFS).



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Programme for Improved Nutrition in Sindh

Rural Support Programmes Network

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