



Sindh Agricultural Growth Project – Livestock component inception workshop report

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List of abbreviations & Definitions

Abbreviations	Definition
AI	Artificial Insemination
AIP	Agricultural Innovation Program
CGIAR	Consultative Group for International Agricultural Research
CVDL	Central Veterinary Diagnostic Laboratory
DoL&F	Department of Livestock and Fisheries
DPIU	District Project Implementation Unit
DVC	Dairy Value Chain
ESMF	Environment and Social Management Framework
FMD	Foot and Mouth Disease
GDP	Gross Domestic Product
ILRI	International Livestock Research Institute
LPO	Livestock Production Officer
MPG	Milk Production Groups
PMU	Project Management Units
SAGP-L	Sindh Agriculture Growth Project – Livestock
SPU	Semen Processing Unit
SR herders	Small Ruminant Herders
SRVC	Small Ruminant Value Chain
US	United States of America

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Chapter 1: Introduction

Agriculture (crops and livestock) contributes 11.4% of Pakistan's GDP while livestock contributes 58.3% of total agriculture contribution to GDP (Government of Pakistan, 2016-17). About 8.5% of total exports are derived from livestock, livestock products and by-products. Livestock remains the source of funds and means of saving for the rural population. According to Livestock Census 2006, Sindh has the second highest animal population in Pakistan (32.144 million heads).

Sindh is the major agricultural province in Pakistan following Punjab. The productivity of most of the crops of Sindh is higher as compared to Punjab. 23.8 percent of Pakistan's population lives in the province. Sindh covers 18 percent of Pakistan's land area and 16 percent total cropped area. It contributes about 23 percent to national agriculture value-added primarily through wheat, rice, cotton, sugarcane, and milk. Sindh has a larger percentage of small and medium farmers as compared to Punjab. About 30-35 percent of Sindh's population lives below poverty line, and majority of the poor are living in rural dwellings. Sindh's poverty is often attributed to inequality in land distribution which has increased over time. Production largely depends on sharecropping (42 percent of farms in Sindh), the extent of which has remained nearly twice as much as other provinces for the last 50 years. Majority of the small- and medium-scale farmers are poor and keep their livestock for draught and milk purposes. Farmers do not afford machinery due to small holdings. In Sindh, the role of livestock in rural economy may be realized from the fact that 30-35 million rural population is engaged in livestock raising and have household holdings of 2-3 cattle/buffalo and 5-6 sheep/goat per family deriving 30-40 percent of their income from it. The Government of Sindh through the Government of Pakistan has received an International Development Association credit to meet part of the costs for the SAGP. The aim is to uplift the overall productivity of agriculture sector through various targeted interventions in commodity specific value chains and inculcate the best management practices. The project component on livestock was implemented by the Department of Livestock and Fisheries, Government of Sindh.

The development objective of SAGP for Pakistan is to improve the productivity and market access of small- and medium-scale producers in important commodity value chains. The project had three components namely, capacity building and institutional development, Investment for agricultural growth, and project management, monitoring and evaluation. SAGP aims to improve the productivity and competitiveness of small and medium producers in selected commodity value chains. This will be achieved by investing in knowledge and technology for producers, sub-sectors of crops and livestock and strengthening public sector institutions to create enabling environment for sustained sectorial growth. The project will focus on five key value chains namely, chillies, onions, dates, rice post-harvest losses management, and dairy. These value chains are small/subsistence farmers centred, with significant involvement of women in production and processing.

1. Capacity building and institutional development: support capacities of producers through technology development, technology dissemination, training, and exposure. It includes the following three sub-components:
 - i. Capacity building of producers
 - ii. Modernization of extension services and agricultural research
 - iii. Strategic planning for the agricultural sector.
2. Investment for agricultural growth: support specific investments in the horticulture and dairy value chains and a targeted investment to reduce post-harvest loss among small-holder rice growers. It will also support demand driven innovation fund to support farmers and producers with technology innovations in the selected value chains. It includes following four sub-components:
 - i. Horticulture value chains
 - ii. Rice post-harvest loss management
 - iii. Dairy value chain
 - iv. Demand driven innovation fund

The project component on livestock has the following specific objectives:

- **Component A - Capacity building and institutional development**
This component financed activities around technology development, technology dissemination, capacity building and strategic planning for Sindh's Livestock sector.
- **Component B: Investment for livestock growth**
Component B financed formation of MPGs in all targeted districts. It targeted small- and medium-scale milk-producing households. At least 80 percent women are involved in production management. Therefore, the project provided services exclusively targeting women (e.g., extension messages, female extension agents, etc.).
- **Component C: Project management, monitoring and evaluation**
This component focused on the overall monitoring and evaluation of the activities under the livestock component. This component provided support to follow the right track to achieve the set targets under SAGP-L.

Chapter 2: Workshop proceedings

2.1. Inauguration

Inception workshop was held on 24 October 2017 at the Indus Hotel in Hyderabad.

Ibrahim, ILRI Country Representative for Pakistan opened the workshop by welcoming participants and thanking the World Bank.

Javed Ahmed Memon, Deputy Director of SAGP-L project also welcomed participants.

2.2. Aims and objectives

The goal of the workshop was to develop a cohesive understanding of the scope of the livestock capacity development component within the SAGP-L project. The workshop also provided opportunity for various stakeholders/project actors to come together to learn about ILRI's approach, tools and innovations to be deployed in project implementation. The following are additional objectives of the workshop:

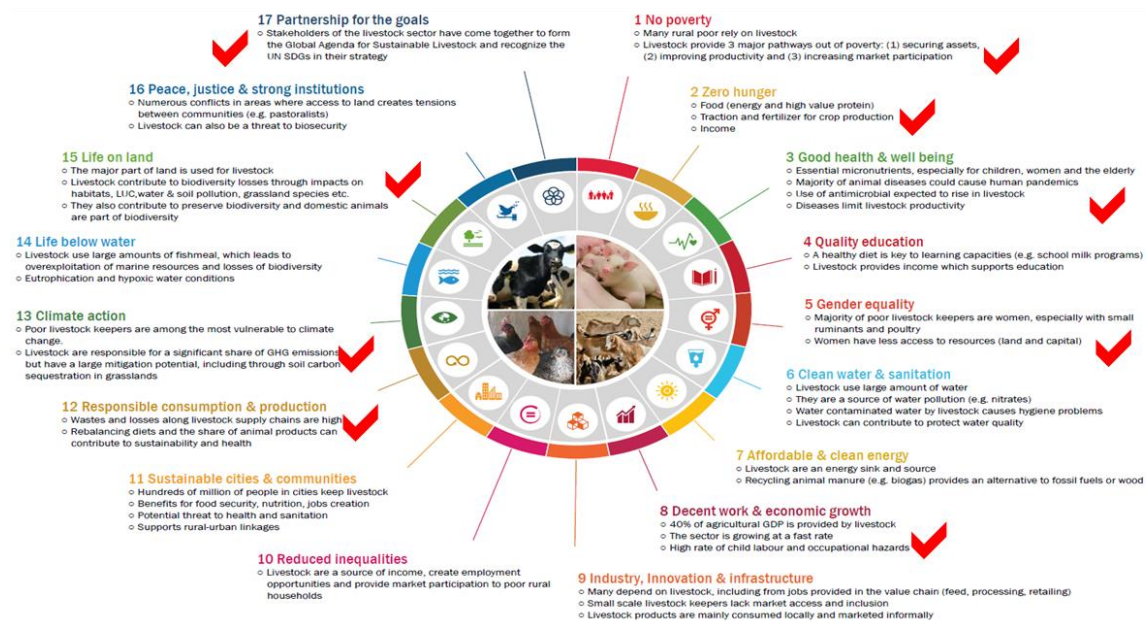
- Develop a common understanding of expectations of various stakeholders/actors.
- Provide an overview of approaches, procedures and implementation plan of the capacity building component based on current trends and indigenous practices.

2.3. Workshop presentations

2.3.1. Overview of ILRI's global agenda for food security and rural livelihoods

(Edwin Kangethe, Phillip Sambati, Iddo Dror)

ILRI was introduced to the participants (see Appendix 5). The key highlights of the presentation are listed below. ILRI's mission to improve food and nutritional security and to reduce poverty in developing countries through research for efficient, safe and sustainable use of livestock.



The following are the main opportunities and challenges associated with the livestock sector shared by the presenters.

- Livestock provides food and nutritional security. Overconsumption can cause obesity
- Livestock powers economic development but equitable development can be a challenge

- Livestock improves human health but animal-human/emerging diseases and unsafe foods need to be addressed
- Livestock enhances the environment pollution, land/water degradation, GHG emissions and biodiversity losses must be addressed and greatly reduced

The following tree scenarios, on how demand for livestock commodities in developing economies can be met, were shared by presenters.

1. Scenario 1 - Meeting livestock demand by importing livestock products
2. Scenario 2 - Meeting livestock demand by importing livestock industrial production know-how
3. Scenario 3 - Meeting livestock demand by transforming smallholder livestock production systems

The following is a list on how livestock is important for livelihoods.

- About 70% of the world's rural poor rely on livestock for important parts of their livelihoods.
- Of some three-quarters of a billion poor livestock keepers in the world, around two-thirds are rural women.
- Over 100 million landless people keep livestock.
- In the poorest countries, livestock manure comprises over 70% of soil fertility amendments.
- Many employed in local informal livestock product markets.
- Approximately 90% of animal products are produced and consumed in the same country or region.
- Over 70% of livestock products are sold 'informally'.

2.3.2. Overview on SAGP-L activities: Mandate, progress and way forward

(Javed Ahmad Memon, Deputy Project Director/SAGP-L)

Javed Ahmad Memon, Deputy Project Director, SAGP-L provided an overview of the project (Appendix 5):

He stated that the following are the objectives of the project.

- Direct support to small- and medium-scale livestock farmers
- Milk collection & Linkages with market
- Institutional Strengthening

The following were presented as the major project activities .

1. Dairy value chain: the scope is to establish 153 milk producing groups (MPGs) in 10 districts where each animal produces about 5 litres of milk and where there are 40 animals/village and 5 villages for a milk producing group. The activity also involves installation of solar powered milk chillers at each of the 153 MPGs; provision of veterinary services, artificial insemination (AI) and diagnostic facilities to over 30,600

animals. The activity also includes social mobilization, market linkages and access to processors to obtain the best/optimal prices for their milk.

2. Capacity building: This activity involves training 3075 farmers, establishing AI training centre at Tandojam, training 760 AI technician, institution twinning, national and international exposure visits.
3. Civil works: this activity involves rehabilitation of rain/flood affected veterinary buildings (100 hospitals, 02 SPU, 06 CVDL Labs, 13 LPO Offices)

2.3.3. Overview on Plan International activities: Mandate, progress and way forward

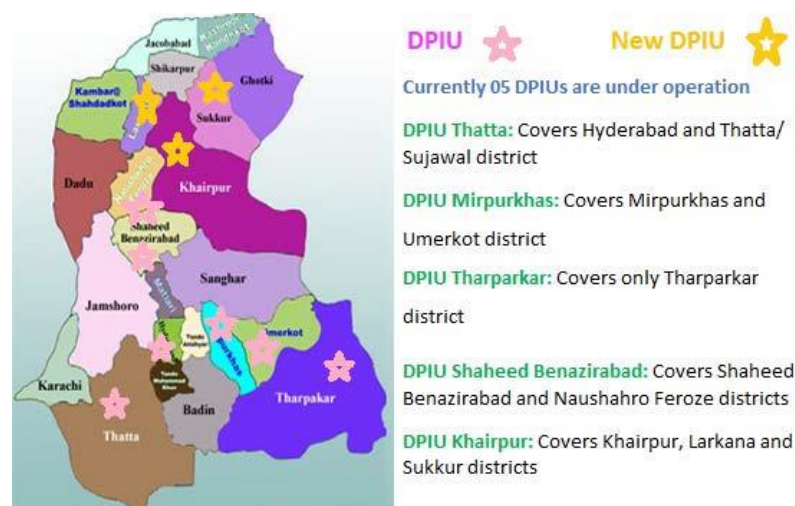
(Saleh Mangi, Team Leader, Plan International)

Plan International Consultant (PIC) overall objectives were to provide technical assistance and support in the implementation of capacity building of dairy value chain and project monitoring and evaluation (Appendix 5).

Plan International indicated that it has already undertaken a training need assessment of SAGP-L and DoL&F staff and will be able to share recommendations to ILRI to further strengthen the capacity development program.

Plan International would also provide the necessary support for any exposure visits for the ILRI team members towards established MPGs so that ILRI could get an insight into the working and status of the milk producer groups.

Photo 1 DPIUS under operation



Two chillers had already been installed in Tharparkar on pilot basis in September 2016.

Plan made the following recommendations.

- Replacement of the type of generator currently being purchased
- Temporary set up to install available 10 chillers
- Capacity building activities
- Procurement in phased manner
- Speed up civil works

- Gender strategy – document for approval
- Staffing of SAGPL should be on (full time basis)

2.3.4. ILRI in Pakistan: Overview of the Agricultural Innovation Program

(Zeeshan Mustafa, ILRI Scientist)

The presentation (Appendix 5) focused on sharing the work done under the agriculture innovation platform (AIP) project implemented by ILRI focusing on improvement and development of livestock sector particularly on strengthening indigenous breeds.

- The project established 21 model cum training farms to inculcate best management practices which reaches up to 1,466 livestock farmers directly and indirectly reaching 29,326 farmers; the project also recovered US\$ 133,333 from feed wastage in 2017.
- It reached 7,600 animals with targeted intervention of vaccination against foot and mouth disease (FMD); this intervention saves US\$ 978,419 worth animals/production losses in Punjab.
- It has undertaken a series of 36 awareness programs across the country, reached 16,524 livestock farmers with more than 25% being female farmers/participants.
- ILRI has specially designed capacity building programs for promising researchers related to livestock enterprise and reached up to 697 post-graduates including 9% female students.
- The project distributed 2500 food graded milk in cans in support of hygienic milk production and over 3000 water troughs to ensure free access to water for sustained dairy production across Pakistan. The presenter also shared evidence from a study that showed consumers heterogeneous demand for aflatoxin free milk in major urban centres.
- On small ruminant value chain activities, the project has successfully achieved progressive control on PPR with over 10 awareness cum training workshops reaching 435 small herders and more than 1400 sheep and goats were vaccinated.
- On feed rations for fattening, 5 farmers' participatory trials with 40 medium scale small ruminant herders yielded 30- 40% higher profit. To date, 1771 individuals have been trained on AI in goats of which 1519 are government and private practitioners and 252 final year veterinary students.
- The project also undertaken four trainings on field application for ultrasonography in goats with 82 participants of which 12% were female across Pakistan.
- On Feed, fodder and rangelands to combat feed scarcity and nutritional deficiencies, ILRI targets rural entrepreneurs where five business models have been set-up three in DVC and two were in SRVC for income earning activities.
- Village based seed enterprises were also established in which USD 102 worth Rye grass seeds were sold by female entrepreneurs as well as awareness created among >600 livestock farmers on tailor made targeted interventions.

ILRI consider Sindh as a treasure land for indigenous resources and innovation for parched land. Therefore, AIP successfully completed activities in Sindh include:

- Four model cum training farms for small ruminants.
- Standardization of silage (bale and bunker) through AgriNIR analyser: Setting quality parameters for nutrition feed for dairy animals.
- Assessment and evaluation of traditional fodder marketing system.
- Five farmer’s participatory trial on strategic feeding in diverse agro ecologies to ensuring higher productivity through indigenous feeding resources
- Distribution (>300) of innovative and food grade water and milk-in cans to marginalized dairy herders
- Grass cultivation under date plantation: A nutritious and economical way to sustain dairy production

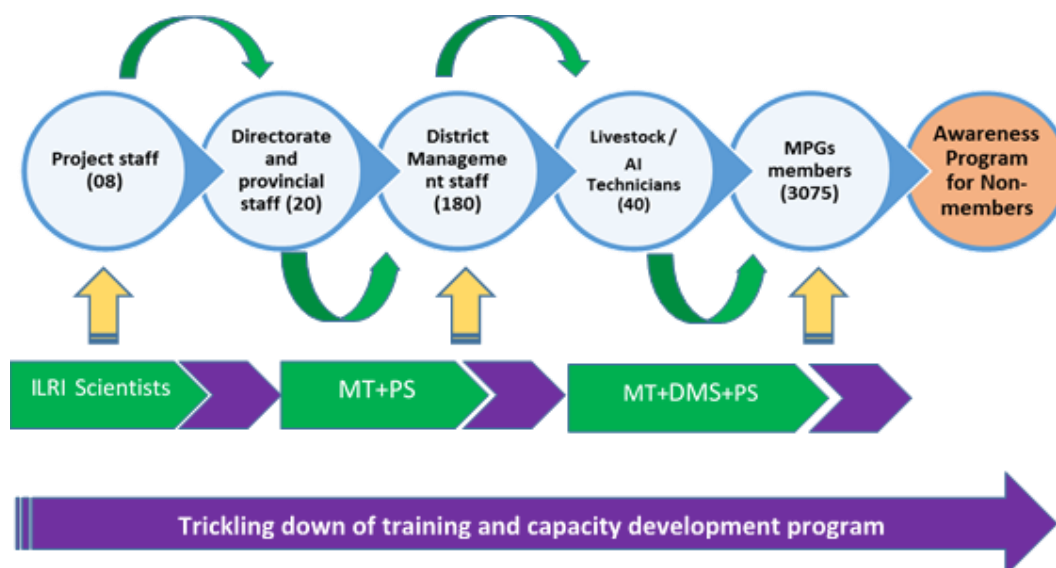
2.3.5. ILRI’s capacity building activities under SAGP-L

(M.N.M. Ibrahim, Team Leader SAGP-L-ILRI/ Scientist)

Objectives of ILRI’s capacity building component:

- Design capacity building and training interventions for various stakeholders at provincial level, district staff, and field level and producer groups in each of the selected districts.
- Organize in-country and overseas exposure/training visits
- Conduct seminar/workshop/farmers days/hands on training and demonstration for producers.
- Enhancing market access, and as need arises, through enterprise development and promoting aggregation and processing, with a focus on food safety and human health risks

Photo 2 ILRI’s capacity building model



Scope and tasks:

- Development of training manuals and extension materials catering towards the capacity building needs of all the stakeholders in the dairy value chain
- Capacity building of all stakeholders involved in the dairy value chain
- Organizing in-country and overseas educational/field visits

The expected deliverables are to develop a training curriculum, manual, modules and tools. ILRI will also develop dynamic training curriculum focused on the selected value chains. These nodes are a) information and guiding material on cutting edge knowledge on livestock management and husbandry, b) Information and instructional materials on dairy business and c) hands on practice and demonstration materials. The course tools will include manuals, hand-outs and practical exercises and serious games for adult learning. ILRI will also adopt participatory learning approaches, learning by doing, exposure visits, on the job training, continuous mentoring and follow up.

ILRI has also identified the following as the key capacity building aspects/needs:

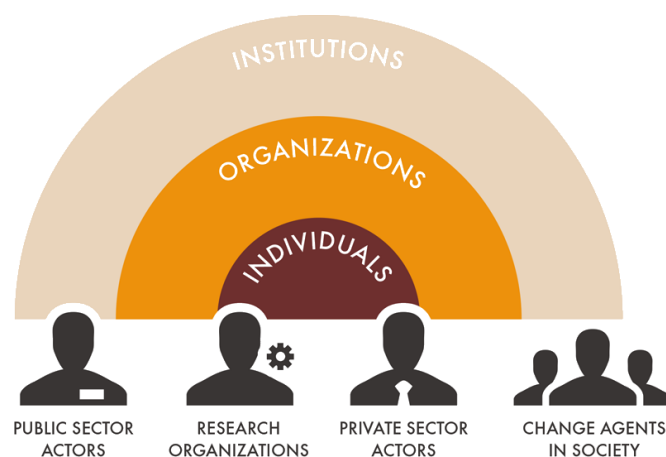
- Communication skills/techniques
- Dairy value chain concepts and analyses
- Feeds and feeding
- Animal health management
- Breeding and genetic improvements
- Modern dairy farming practices
- Procurement/marketing strategies

ILRI will work with stakeholders to carry out the activities. The main stakeholders in this case are livestock department staff, district livestock department staff, field extension staff, and milk producer groups.

2.3.6. Capacity development tools and methodologies: an overview.

(Edwin Kangethe, Phil Sambati, Iddo Dror/CapDev Unit, ILRI Nairobi)

What is CapDev?



Capacity development is a key component in ILRI's 2013-2022 strategy and recognised as a strategic objective as well as a critical success factor to achieve ILRI's mission. Also, build a critical mass of people and organisations to make better use of livestock science and ensure impact at scale. For the full presentation see Appendix 5.

Innovative technologies and methods

- Use of blended learning to create rich personal learning networks where voice services, SMS and offline learning management system support traditional face to face engagement.
- Innovation in methodologies – using instructional design to create interactive learning activities
- Using latest ideas to motivate learners- gamification
- Strengthening our learning analytics

An instructional designer works with subject matter experts, trainers and e-Learning developers to create:

- Logically sequenced curriculum that introduce skills and concepts in an accessible, step-by-step manner
- Activities that offer relevant practice
- Assessments that truly gauge learners' mastery of subject
- Insightful, memorable anecdotes and case studies
- An engaging experience for learners delivered through the most appropriate methods / channels

Applying instructional design and developing blended-learning materials - the FEAST example

- The Feed Assessment Tool (FEAST) is a systematic method to assess local feed resource availability and use. It helps in the design of intervention strategies that will optimize feed utilization and animal production.
- We have launched a new learning initiative to reach a wider audience with improved training, available both in the classroom and online.
- We introduce new media and technologies to support the learning experience
- Tested in the field, launched in May 2015.
- Joint development with CRP Humid tropics & Livestock and Fish



Why we are excited about the prospects of mLearning

- Short bite-sized micro-lessons: Fits the environment where we aim to intervene!

- Transcends the formal learning space and brings structured learning into an informal learning space (Flexible, Self-paced, Self-directed)
- A Form of Performance Support (Just-in-time / On-demand learning)

Smallholder dairy data systems for sustainable genetic selection programs

- Genetics a major driver of livestock productivity, and genetic improvement is dependent upon the availability of performance data. In Africa, production data is entirely absent.
- New projects to create mobile data platforms to skip a generation of data collection technology by providing dairy farmers with highly tailored information and management systems

Online/Blended course on understanding, facilitating and monitoring agricultural innovation processes

- Planned and piloted as blended learning program
- Inputs from 2014 workshops (ILRI/WUR/IITA) plus additional inputs from FARA, CIAT, Africa Rising Program, ILRI CKM Unit
- 6 online modules produced and launched on a Learning Management System (LMS).
- Modules piloted by 14 participants from the Humid tropics CRP in the Mekong - 9 participants successfully completed modules and attended workshop to pilot face-to-face component
- Feedback from FGDs verify utility of blended approach
- Additional 7 modules launched in 2016, along with lessons plans and teaching notes, and an 'offline player' mode to make the materials more accessible even in areas without reliable internet access.



Chapter 3: ILRIs capacity building activities under SAGP-L

The objective of ILRI's assignment is limited to capacity building of all stakeholders involved in the dairy value chain, and ILRI's task is to:

- Develop a detailed Capacity Building Plan (CBP) for various stakeholders in the dairy value chain components of the project with yearly distribution of activities.
- Design capacity building and training interventions for Provincial Livestock Department staff, and District staff, Field extension staff, producer groups (MPG members) and players of dairy value chain in each of the selected districts.
- Organize in-country and overseas exposure/training visits to PMU and other livestock department staff, producer groups, progressive farmers and potential entrepreneurs.
- Conduct seminar/workshop/farmers days/ hands on training/demonstration for producers. The topics may include, but not limited to, animal husbandry, feed/fodder, animal nutrition, disease control, modern dairy farming, breed improvement, disease diagnosis, etc.

ILRI will be responsible for the tasks listed above and, in this context, will carry out the following specific activities:

3.1 Training curriculum, manual, modules and tools

Developing dynamic training curriculum for line department officials, field staff and farmers/producer groups, focused on the selected value chains modes. The curriculum will include:

- Information and guiding material on cutting edge knowledge on Livestock management and husbandry including nutrition, disease control, modern dairy farming, breed improvement, pregnancy diagnosis, heat detection and reproductive diseases etc.
- Information and instructional materials on dairy business.
- Hands on practice and demonstration materials.
- Any other topics/materials identified in the training need assessment report

The course tools will include manuals, hand-outs and practical exercises, games etc and should adopt participatory learning, learning by doing, exposure visits, on the job training, continuous mentoring and follow up.

3.2 Capacity building of livestock department staff

Provincial livestock department staff and Directorate and District Livestock Officers working in the ten target districts to be trained on communication skills/techniques, dairy value chain concepts and analyses, feeds and feeding, animal health management, breeding and genetic

improvements, modern dairy farming practices, and procurement/marketing strategies. These trainings will be of 1-2 days duration and will be conducted by ILRI staff.

3.3 Capacity building of district livestock department staff

The Veterinary Officers and farm managers of all target districts to be trained on communication skills, extension guides/techniques, dairy value chain concepts, concepts of farmer organizations, animal nutrition and feeding, animal health management (disease prevention and control), breeding and genetic improvements, dairy farming and best/appropriate farming practices, and procurement, processing and marketing strategies. These trainings will be of 2-3 days duration and will be conducted by master trainers recruited by ILRI.

3.4 Capacity building of field extension staff

Field level extension staff from the livestock department (AI technicians, livestock assistants), NGOs and private sector of all target districts to be trained on communication skills, protocols/guides on extension, dairy value chain concepts, concepts of farmer organizations, animal nutrition and feeding, animal health management (disease prevention and control), breeding and breed improvements, dairy farming and best/appropriate farming practices, and procurement, processing and group marketing strategies. These trainings will be offered in 4 split training sessions, each of 1 day duration and will be conducted by master trainers recruited by ILRI.

3.5 Capacity building of farmer producers' groups

Members of MPGs established by the project to be trained on concepts of farmer organizations, feeds and feeding strategies, animal disease prevention and control, breeding and breed improvements, best/appropriate dairy farming practices, processing and marketing strategies. Capacity building will be done by conducting a series of half-day to one day trainings, by combining the above topics in a logical manner. These trainings will be conducted by field level extension staff under the guidance of the master trainers recruited by ILRI. The course should include topics related to improved dairy practices (technically and economically feasible in local context), clean and hygienic practices in production, handling, storage and marketing, improved milk and product quality and safety, reducing wastage and spoilage, value addition, prevailing rules and regulations for running informal milk/product business, business management, marketing and so on.

3.6 Exposure visits to DoL&F, PIU teams, s and MPG groups

- ILRI will organize/coordinate international exposure visit to the Kenyan Creamery Company (KCC), Nairobi, Kenya for the SAGP-L Project team based in Hyderabad to familiarize with the Dairy Hub approach set-up in collaboration with ILRI.
- ILRI will organize national field exposure visits for the progressive farmers in the MPGs to expose them to best/modern practices of dairy farming, product processing and marketing practices.

In addition to the above major tasks assigned, ILRI will provide technical support to SAGP-L and DoL&F on the following 3 areas which are deterrent to the sustainability of the Dairy sector in Sindh and in other provinces. Implementation of these assignment would need supplementary funding from SAGP-L for field execution.

a. Mastitis and reproductive health management

It is proposed to demonstrate a mastitis management programme in a small cluster (around 100 farmers) under the project. Under this, all dairy animals in the project households will be tested with California Mastitis Test (CMT). If successful, this would be replicated in other clusters as per the prevalence of the disease. Later, extension and information materials will be developed, which the Directorate would use in its campaigns, training and capacity building programs etc. Besides mastitis management, the project would build a reproductive health management program addressing diseases/anomalies/syndromes like brucellosis, abortion, repeat breeding, infertility, metritis, endometritis etc. which cause huge losses and are a risk to human health as well. ILRI to demonstrate the benefits that can be achieved by disease control, motivating & scale-out. Finally, it should result in reduced disease incidence and improved productivity. Reproductive health management camps will be organized in the project villages with the support of SAGP, local veterinary officers, experts from the veterinary department and PIC.

b. Technical assistance for introducing new feed technologies

ILRI would provide technical support to DoL&F and MPGs in entrepreneurship development in animal feed sector. This would include facilitating interaction between entrepreneurs and equipment suppliers, ingredient suppliers, maize growers and market agents through organizing interactive sessions. ILRI would guide DoL&F in sourcing improved varieties of seeds with higher feed values (e.g., improved grass seeds, Quality Protein Maize) and promoting food-feed crops such as maize, sweet potato, mustard etc. Special considerations to be given for silage and hay making especially in Tharparkar and other project districts.

c. Technical assistance for better use of farm waste in crop livestock system:

Project would endeavour to put in place a robust mechanism for proper utilization of farm animal waste to useful crop nutrient supplements to mitigate the environmental and health impacts of livestock waste. The consultant would also build capacity of MPG members for better use of the farm waste.

Chapter 4: Narrative of ILRI activities and activity schedule

4.1 Achievements

As per the agreement signed with SAGP-L on 15 September 2017, the duration of assignment is 20.5 months (up to 30 June 2019). The request letter to initiate activities was issued by the Project Director/SAGP-L on 13 October 2017. Since then, the following activities were operationalized/planned:

1. M.N.M. Ibrahim (Country Representative for ILRI in Pakistan) who has been backstopping SAGP-L for the past year takes the additional responsibility of Team Leader of SAGP-L ILRI component.
2. ILRI appointed Shahid Ali Khan under a consultancy agreement to take up the position of Project Coordinator.
3. Dates for the inception workshop and the first capacity building activity of training provincial staff of the department of livestock were scheduled for 24 and 25 October 2017, respectively.
4. Arrangements were made with ILRI's host in Pakistan (CIMMYT Pakistan) to advertise the 3-training associate, admin cum finance assistant and office attendant positions.
5. Started looking for a suitable place to establish ILRI office in Hyderabad.

4.2 Activity schedule to achieve end of project targets

4.2.1 Training materials

Training materials (modules and tools) developed by ILRI and those developed by ILRI Pakistan office, will form the base for the preparation of the training modules and tools for the different stakeholders involved in the dairy sector. Training materials will be made available in English, Sindhi and Urdu languages.

The trainings materials produced will cover the following major disciplines:

1. Dairy value chain: Concepts and analyses
2. Feeds and feeding strategies
3. Animal reproduction, genetics and breeding
4. Animal health prevention and control
5. Animal management (housing etc.)

The above materials produced will be in the form of manuals, training guides, software tools, animated pictorial guides, and talking pictures tailored towards the different stakeholders in the dairy value chain.

4.2.2 Training of master trainers

Training of master trainers will commence after the appointment of the training associates who will be on board during the 2 half of December 2017. The training associates together with some selected district level DOL&F staff will be trained on the above disciplines by CapDev unit staff from ILRI, Project Coordinator and other ILRI Pakistan scientists. The first set of training of Master Trainers is scheduled to take place during the 2nd half of January 2018, in which 3 ILRI scientists will be involved (Dairy Value Chain, Feeds & Feed Assessment, Genetics & practical Breeding strategies).

4.2.3 Capacity building of provincial livestock department staff

Provincial livestock department staff, Directors from the ten target districts and SAGP-L DPIU focal persons and Plan International staff will be trained by ILRI Nairobi CapDev unit scientists and ILRI Pakistan scientists. This activity is planned for 25 October and 24 staff from the above organizations are invited.

4.2.4 Capacity building of district livestock department staff

The Veterinary Officers at the district office and farm managers of all target districts are to be trained on the subject matter as detailed in section 3.2. These trainings will be of 1-2 days duration and will be conducted by ILRI scientist from Nairobi, SAGP-L-ILRI project staff and AIP-ILRI scientists. Training are scheduled to start from the 3rd week of January 2018. Overview of the number of district level staff to be trained is shown in Table 1 below. 20-25 staff will be trained at each training session. As such, depending on the numbers to be trained per district, some of the district staff will be combined.

Table 1: Summary of District Level staff working with MPGs

Sr. No.	District	Animal Husbandry	Animal Breeding	CVDL	SAGP-L staff		Total
		Veterinary officers	Veterinary officers		Field Manager	Lady Livestock Supervisor	
1	Hyderabad	5	0	0	0	1	6
2	Thatta	5	1	1	1	1	9
3	Mirpurkhas	7	0	1	1	1	10
4	Umerkot	8	0	0	0	1	9
5	Tharparkar	19	1	1	1	2	24
6	Naushahro Feroze	7	0	1	0	1	9
7	Shaheed Benazirabad	6	1	1	1	1	10
8	Khairpur Mir's*						
9	Sukkur*						
10	Larkana*						
Grand Total		57	3	5	4	8	77

* Yet to be collected

4.2.5 Capacity building of field extension staff

The field level extension staff from the livestock department (AI technicians, livestock assistants), NGOs and private sector of all target districts to be trained on communication skills, protocols/guides on extension, dairy value chain concepts, concepts of farmer organizations, animal nutrition and feeding, animal health management (disease prevention and control), breeding and breed improvements, dairy farming and best/appropriate farming practices, and procurement, processing and group marketing strategies. These training courses will be offered in 1-2 sessions, each having a one-day duration and will be conducted by master trainers recruited by SAGP-L-ILRI. Number of field level staff to be trained in each district is summarised in table 2.

Table 2: Summary of field staff (paravets: stock assistants and inspectors) working with MPGs

Sr. No.	District	Animal Husbandry	Animal Breeding	Total
		Paravets	Paravets	
1	Hyderabad	7	0	7
2	Thatta	14	3	17
3	Mirpurkhas	10	0	10
4	Umerkot	7	0	7
5	Tharparkar	19	0	19
6	Naushahro Feroze	11	7	18
7	Shaheed Benazirabad	12	5	17
8	Khairpur Mir's*			
9	Sukkur*			
10	Larkana*			
Grand Total		80	15	95

* Yet to be collected

4.2.6 Capacity building of farmer producer groups

Members of MPGs established by the project to be trained on concepts of farmer organizations, feeds and feeding strategies, animal disease prevention and control, breeding and breed improvements, best/appropriate dairy farming practices, processing and marketing strategies. Capacity building will be done by conducting a series of half-day to one day trainings, by combining the above topics in a logical manner. These trainings will be conducted by the trained field level extension staff under the guidance of the project master trainers. The training will include topics related to improved dairy practices (technically and economically feasible in local context), disease prevention and control, breeding strategies, clean and hygienic practices in milk production, handling, storage and marketing, improved milk and product quality and safety, reducing wastage and spoilage, value addition, and on aspects of informal milk/product business and marketing.

Of the 153 MPGs to be formed in the 10 target districts within the lifetime of the project, to-date 83 has been established in 7 districts consisting of 4,065 members (table 3), which averages to around 50 members per MPG. With these norms, it is expected that the final

count of MPG members to be trained will be around 7,000, which is more than double the number indicated in the SAGP-L project document (3,075) and the agreement signed with ILRI. These additions will not only require extra man power to execute the capacity building activities, but also additional financial resources. Moreover, during observation visits by ILRI team to some of the established MPGs, the current membership is much more than the numbers indicated in the table below, which warrants the need to update the membership figures before planning and executing the capacity building activities.

Table 3: Number of MPGs formed per district and their membership (as of September 2017)

Sr. No	District	DPIU	No of MPGs formed / district	Total members per district
1	Hyderabad	Thatta	3	169
2	Thatta	Thatta	19	924
3	Mirpurkhas	Mirpurkhas	10	404
4	Umerkot	Mirpurkhas	8	355
5	Naushahro Feroze	Shaheed Benazirabad	11	509
6	Shaheed Benazirabad	Shaheed Benazirabad	11	498
7	Tharparkar	Tharparkar	21	1,206
8	Sukkur*			
9	Khairpur Mir's*			
10	Larkana*			
Total Number	7	4	83	4,065
EOP Target	10	5	153	3,075

Source: Modified from Plan International Pakistan

* Yet to be established

4.3 Work plan matrix

Gantt chart for list of activities to be executed under the SAGP-L by ILRI are elaborated in Appendix 4. The project development objective of the project is to improve productivity and market access of small- and medium-scale producers in the dairy value chain. The following are activities to be delivered at the end of the project.

- Written guidelines and set platform for best-bet interventions and model for Small and Medium Producers (S&MP)
- Livestock sector human resource development and orientation for facilitation for small and medium producers (S&MPs) for livestock commodities for improved/better productivity and access to the marketing systems
- Deliver improved and enriched advisory services at the farmers doorstep for enhanced livestock productivity and access to the better marketing systems
- Modern livestock value chain practices and tools exposed to the S&MPs to ensure higher livestock productivity and better market access/systems

The activities and schedule to be undertaken to achieve the end of project vision is illustrated in Table 4.

Activity	2017			2018												2019					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Preparation of Training Materials	x	x	x	x	x	x	x	x													
Finalization and translation of training materials					x	x	x	x	x	x	x	x	x	x	x	x	x				
Training of Provincial Department staff	x																				
Training of Master Trainers				x																	
Training of District DoL&F staff				x	x	x	x	x	x	x	x	x	x								
Training of Field level					x	x	x	x	x	x	x	x	x	x	x						

staff & DPIU staff																						
Trainings of MPG members and follow-up trainings on marketing and value addition					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Monitoring and evaluation				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
In-country exposure visits							x							x								
Overseas exposure visit												x										

Chapter 5: Discussion and concluding comments

The participants highly appreciated the efforts of ILRI in showcasing its global agenda and its achievements in the neighboring countries and in Pakistan in uplifting small-scale livestock producers out of poverty.

The following are comments raised by participants during the discussion:

- A recent awareness program organized by ILRI under the USAID funded AIP, in village Ali Bahar, MPG-Habib Soomro (district Thatta), revealed that the records maintained by SAGP-L indicates 57 members, however according to the President of the MPG now it has increased to 86. This necessitates that the membership records at each MPG to be updated before initiating the activities at MPG level. On the same note, it is inevitable that the numbers of MPG members to be trained is more than **double** the number indicated in the SAGP-L project document (**3075**) and the agreement signed with ILRI. This surge of numbers will not only require extra manpower to execute the capacity building activities, but also additional financial resources.
- It was also pointed out that for enhancing farmers' enthusiasm and participation, the trainings should not only include demonstrations on training interventions and hands on practice, but also SAGP-L should provide incentives to members in the form of quality seeds, essential dairy utensils for improving hygienic milk production etc. Extra funds need to be allotted from SAGP-L to ILRI to undertake these additional commitments.
- It was revealed that under the project Shaheed Benazir Bhutto Youth Development Program (BBSYD) capacity building of youths, especially women are on-going, and it was suggested to use these trained women (if available near the MPGs) in ILRI's capacity building activities.

In the concluding session the Chief Guest Ali Akber Soomro, Director General, Department of Livestock & Fisheries, thanked all participants for responding to invitation and making their way to the meeting. He reiterated the importance of the livestock sector to the people of Sindh and that the government was committed to supporting livestock husbandry work as a way of improving the profits that farmers can get from their livestock enterprises thereby raising their income.

Finally, vote of thanks was delivered by Shahid Ali Khan ILRI Scientist who thanked all participants and the dignitaries who had attended the workshop. He also appreciated the media team attached to various agencies/media houses for showing their great interest in livestock work on that day and urged them to continue with the same since livestock was an important sector for their viewers.

Appendixes

- Appendix 1.** Workshop Agenda
- Appendix 2.** List of participants
- Appendix 3.** Number MPGs formed as of June 2017, Names of MPGs and the membership
- Appendix 4.** Gantt chart for list of activities in SAGP-Livestock (ILRI)
- Appendix 5.** Inception workshop presentations

Appendix 1: Inception Workshop Agenda

Inaugural Session	
08:30-09:00	Registration
09:00-09:10	Recitation from holy Quran
09:10-09:40	Welcome address (M.N.M. Ibrahim ILRI Country Representative)
09:40-10:00	Welcome address (Javed Ahmad Memon, Deputy Project Director, SAGP-L)
10:00-10:20	Overview on ILRI Global Agenda for Food Security & Rural Livelihoods (Edwin Kangethe, P. Sambati, I. Dror/ILRI Scientist-Nairobi, Kenya)
10:20-10:50	Tea Break
Session 1	
10:50-11:35	Overview on SAGP-L Activities: Mandate, Progress and Way Forward (Deputy Project Director/SAGP-L) (Javed Ahmad Memon, Deputy Project Director, SAGP-L)
11:35-12:20	Overview on Plan International Activities: Mandate, Progress and Way Forward (Saleh Mangi, Team Leader, Plan International)
12:20-13:00	ILRI in Pakistan: Overview and Success Stories from Agricultural Innovation Program (Zeeshan Mustafa, ILRI Scientist)
13:00-14:00	Lunch break
Session 2	
14:00-14:40	ILRI's Capacity Building Activities under SAGP-L (M.N.M. Ibrahim, Team Leader/ILRI Scientist)
14:40-15:20	Tools used for Capacity Building activities (Edwin/Philip/ILRI)
15:20-15:40	Tea Break
15:40-16:10	SAGP-L-ILRI workplan matrix (M.N.M. Ibrahim/Zeeshan Mustafa-ILRI Scientist)
16:10-16:40	Discussion and Concluding Comments
16:40-17:00	Address by Chief Guest (Ali Akber Soomro) Director General, Department of Livestock & Fisheries, Government of Sindh
17:00-17:05	Vote of thanks (Shahid Ali Khan/ILRI Scientist)

Appendix 2: List of participants

	Name	Gender	Designation	Organization	District	
1	Aslam Pervaz Umrani	male	Project Manager	JICA	Hyderabad	0333-7778006
2	Muzamil Memon	Male	DDM	SAGPL	Shaheed Benazirabad	0300-9284655
3	Tikama Das	male	DD livestock AH FP	SAGPL	Mirpurkhas	0331-3273171
4	Darban Ali Khaskheli	male	DD livestock AH FP	Animal Husbandry	Khairpur	0304-7783209
5	Shahar Bano,	female	LLS	SAGPL	Hyderabad	0333-2836279
6	Noor Un Nisa Mari	female	TO, DG office	DG Livestock office	Hyderabad	0333-2751105
7	Ghulam Mustafa	male	DD livestock	Animal Husbandry	Naushahro Feroz	0300-7008453
8	Saleh Mangi	male	Team leader	Plan International	Hyderabad	0300-3443512
9	Jamil Dhanani	male	M&E Livestock Specialist	SAGPL	Hyderabad	0333-2977254
10	Abdul Wahid Sangrasi	male	SPO		Hyderabad	0331-3774532
11	Khet Kumar	male	Adl..Dir LSP	Animal Husbandry	Thatta	0331-3993284
12	Inayatullah Mirani	male	Vet. Officer	Animal Husbandry	Shaheed Benazirabad	0300-2962897
13	Genesh Das	male	DDO	Animal Husbandry	Shaheed Benazirabad	0346-3821633
14	Mukesh Kumar	male	DFM,	SAGPL	Tharparkar	0334-2623791
15	Sana Noor	female	SE	SAGPL	Umerkot	0333-2994215
16	Farah	female	Coordinator S.M.	Plan International	Tharparkar	0301-3613687
17	Shadab Bughio	male	SE safeguard officer	SAGPL	Hyderabad	0345-3756547
18	Aftab Solangi	male	Chief ME officer	SAGPL	Hyderabad	0334-2666788
19	M. Yaqoob	male	Information officer	Information office	Hyderabad	0345-2297991
20	Shahid Hussain	male	DFM,	SAGPL	Thatta	0300-3501678
21	Javed Memon	male	DPD	SAGPL	Hyderabad	0333-2952888
22	Sumaira Naz	female	LLS	SAGPL	Mirpurkhas	0303-3002029
23	Ghulam Ullah	male	Focal person	SAGPL	Tharparkar	0333-2562009
24	Barkat Ali	male	VO			0300-3189608
25	Waqas Lakho	male	Project Engineer	SAGPL	Hyderabad	0300-0300371
26	Meher-un-Nisa	female	LLS	SAGPL	Thatta	0332-2642963
27	Nobat Khan Khoso	male	DD	Animal Husbandry	Tharparkar	0334-2805701
28	Abdul Qadir Junejo	male				0300-3014653
29	Mustafa Baloch	male	Regional head	SPO	Hyderabad	0336-1117888
30	Dileep Kumar	male	Area Manager	ICI Pakistan Ltd	Hyderabad	0333-2604370
31	Fouzia	female	LLS	SAGPL	Naushahro Feroz	0306-0622501
32	Ghulam Sarwar	male	G. Coordinator	JICA Project	Hyderabad	0300-9376771
33	Manzoor Asif	male	Add. Director	Livestock	Karachi	0321-2954060
34	Om Parkash	male	Research officer	CVDL	Hyderabad	0333-2634233
35	Parkash	male	SRO	WDL Tandojam	Hyderabad	0332-2071437
36	G. Shabir	male	DD L/S	Livestock	Shaheed Benazirabad	034-63410015
37	Waqas	male	Photographer	PMU	Hyderabad	0315-4153517
38	Shereen	female	LLS	SAGPL	Shaheed Benazirabad	0334-3665561
39	Habib Baz	male	Agri. Officer	Agri. Extension	Sanghar	0345-3924785
40	Kazi Suleman	male	Team leader M&E SAGP	MDC	Hyderabad	0300-3025385
41	Khadim Hussain	male	Director	Animal Husbandry	Hyderabad	0300-3059041
42	G. Rasool	male	D. Director	Animal Husbandry	Hyderabad	0300-3034930
43	Ali Asghar	male	SRO WDG		Naushahro Feroz	0300-7026429
44	Munwar Ali	male	Add. Director	Poultry (wing)	Karachi	0345-3730940
45	Majeed Dhamrah	male	DPD	BBSYDP L/S	Hyderabad	0346-2279455
46	Ali Akber Somoro	male	DG Livestock	L&F department	Hyderabad	
47	Maqbool Memon	male	Dean SBBUVS		Shaheed Benazirabad	0302-3085501

48	Nasir Leghari	male	DFM NPK/UK	SAGPL	Mirpurkhas	0302-2903020
49	Jamil Sheikh	male	Exec. Director	AB		0306-8264360
50	Zafar Ahmad	male	Communication Consultant	SAGPL	Hyderabad	0300-3051724
51	Fiaz Muhammad Baloach	male	Deputy Director	Animal Husbandry	Thatta	0302-3976595
52	Humaira Zeeshan	female	Media coordinator	SAGPL	Hyderabad	0336-1237971
53	Yameen Memon	male	Chief Exec.	MDC	Hyderabad	0300-9376995
54	Khair-un-Nisa	female	LLS SABPL	SAGPL	Hyderabad	0301-8378572
55	Rukhsana Vighio	female	Chairperson CBU	JICA	Hyderabad	0333-2769110
56	Yasmeen Marri	female	Lab Analyst	Plan International	Hyderabad	
57	Sana Khanzada	female	M&E Coordinator	Plan International	Hyderabad	
58	Amir solangi	male	Assist. Prof.	SAU Tendojam	Khairpur	0300-3035694
59	Ashok Kumar	male	Focal person	Animal Husbandry	Tharparkar	0333-2506622
60	Hubdar Ali	male	Stock Assistant	PPMPK	Mirpurkhas	0334-2176500
61	Riazat Ali	male	Deputy Director	Livestock	Sukkur	0300-3110682
62	Hideo Tominaga Kakuo	male		JICA	Hyderabad	0334-4466590
63	Muhammad Ayoob Bhogal	male	Director L/S Planning	Livestock	Hyderabad	0341-2628525
64	Abdul Rahim	male	DD	Livestock	Larkana	0345-3833227
65	Nazeer Ahmad Kalhoro	male	Director	Poultry Research	Karachi	0311-4605474
66	Zeeshan Mustafa	male	Agricultural Economist	ILRI	Islamabad	0345-7091999
67	Fatima yasin	female	DPL Scientist	ILRI	Islamabad	0332-3526781
68	M.N.M. Ibrahim	male	team Leader	ILRI	Islamabad	0335-9107666
69	Shahid Ali Khan	male	Project Coordinator	ILRI SAGP-L	Hyderabad	0300-3319208
70	Ijaz Khan	male	Project Admin	ILRI	Islamabad	0333-9107066
71	Kamran Riaz	male	Project Accountant	ILRI	Islamabad	0300-5614554
72	Edwin Kimani	male	Scientist	CapDev unit, ILRI	Kenya	
73	Philip Sambati	male	Scientist	CapDew unit, ILRI	Kenya	
74	Subhan	male	Journalist	Mehran TV	Hyderabad	0312-3654679
75	Ali Hamza	male	Journalist	Jaag TV	Hyderabad	0342-3189255
76	Umair Rajput	male	Journalist	INP news agency	Hyderabad	0331-3650053
77	Nazim	male	Journalist	Duty Aman	Hyderabad	0333-2656065
78	Sajjad Zada	male	Journalist	PPI news agency	Hyderabad	0303-3382560
79	Sabir Arani	male	Journalist	Mehran TV	Hyderabad	0331-3568856
80	Nadeem	male	Journalist	BOL TV	Hyderabad	0320-2227705

Appendix 3: MPGs formed as of September 2017 by PIC, their names and the membership

Appendix 3: Number MPGs formed as of June 2017, Names of MPGs and the membership

District	DPIU	Taluka	UC	Name of Village	Name of MPG	No of MPGs formed / district	No of members per MPG	Total members per district
Hyderabad	Thatta	Hyderabad	Chukhi	Gul Lashari	Gul Lashari	3	58	169
Hyderabad	Thatta	Hyderabad	Aalmani	Haji Ghazi Khan Aalmani	Haji Ghazi Khan Aalmani		49	
Hyderabad	Thatta	Hyderabad	Maso Burgheri	Wanki Wasi	Wanki Wasi		62	
Mirpurkhas	Mirpurkhas	Shujabad	Jhalori	Muhammad Khan Lashari	Al-Hussaini	10	36	404
Mirpurkhas	Mirpurkhas	Jhudo	Dilawar Hussain	Bhalo Bhatti	Bhalo Bhatti		38	
Mirpurkhas	Mirpurkhas	Digri	Paban-1	Deh 160	Deh 160		44	
Mirpurkhas	Mirpurkhas	Sindhri	Garore Sharif	Faqeer Muhammad Haelpoto	Faqeer Muhammad Halepoto		38	
Mirpurkhas	Mirpurkhas	Digri	Mir Khuda Bux	Islamdin Rangar	Islamdin Rangar		37	
Mirpurkhas	Mirpurkhas	Sindhri	Ismail Kunbhar	Anwar Ali Nohri	Jeelani		40	
Mirpurkhas	Mirpurkhas	Hussain Bux Mari	Pir Azeem Shah	Mal Faqeer Dal	Mahran		57	
Mirpurkhas	Mirpurkhas	Digri	Paban-1	Mandrawala	Mandrawala		34	
Mirpurkhas	Mirpurkhas	Sindhri	Phuladiyon	Saleh Bhanbhro	Wad-E-Mehran		39	
Mirpurkhas	Mirpurkhas	Hussain Bux Mari	Pir Azeem Shah	Zahidabd	Zahidabad		41	
Naushahro Feroze	Shaheed Benazirabad	Moro	Drass	Golo Poto	Abra Cooperative	10	39	509
Naushahro Feroze	Shaheed Benazirabad	Moro	Manahi	Jummo Noriyo	Jummo Noriyo		43	
Naushahro Feroze	Shaheed Benazirabad	Moro	Dilo Shah	Mangoo Khan Dahar	Mangoo Khan Dahar		46	
Naushahro Feroze	Shaheed Benazirabad	Naushahro Feroze	Thath Ghoraho	Mehmood Khan Panhwar	Mehmood Panhwar Cooperative		36	
Naushahro Feroze	Shaheed Benazirabad	Moro	New jatoi	Mir Mohammad Korejo	Mir Mohammad Korejo		32	
Naushahro Feroze	Shaheed Benazirabad	Moro	Khlar Wah	Nawab Sabqi	Nawab Sabqi		43	
Naushahro Feroze	Shaheed Benazirabad	Mehrab Pur	Dihat	Pir Ilyas Kalhoro	Pir Ilyas Kalhoro		46	
Naushahro Feroze	Shaheed Benazirabad	Moro	Khlar Wah	Qamar Din Chandiyo	Qamar Din Chandiyo		107	
Naushahro Feroze	Shaheed Benazirabad	Kandiyaro	Sheikhani	Sher Muhammad Mamar	Sher Muhammad Cooperative		42	
Naushahro Feroze	Shaheed Benazirabad	Bhirya City	Dalee Pota	Zubair Panhwar	Zubair Panhwar Cooperative		27	
Naushahro Feroze	Shaheed Benazirabad	Bhirya City	Dalee Pota	Nangar Khan Solangi	Bismillah		48	
Shaheed Benazirabad	Shaheed Benazirabad	Daurr	Jam Sahib	Abbass Keriyoo	Al-Husiani Cooperative	11	45	498
Shaheed Benazirabad	Shaheed Benazirabad	Daurr	Obhari Sawari	Chack No 06	Chack No 03		39	
Shaheed Benazirabad	Shaheed Benazirabad	Sakrand	Khadar	Haji Baqir Magsi	Haji Baqir Magsi Cooperative		41	
Shaheed Benazirabad	Shaheed Benazirabad	Qazi Ahmed	Saeed Kando	Saeed Kando	Haji Khan Mallah Cooperative		40	
Shaheed Benazirabad	Shaheed Benazirabad	Qazi Ahmed	Qazi Ahmed-2	Hasoo Khosoo	Hasoo Khosoo Cooperative		42	
Shaheed Benazirabad	Shaheed Benazirabad	Qazi Ahmed	Charirro	Hoat Jo Wahan	Hoat Jo Wahan		53	
Shaheed Benazirabad	Shaheed Benazirabad	Daurr	Jamal Shah	Soomar Khan Jokhio	Amal Shah		49	
Shaheed Benazirabad	Shaheed Benazirabad	Kazi Ahmed	Chariryoo	Mitha Khan Jokhio	Maro Mehar		67	
Shaheed Benazirabad	Shaheed Benazirabad	Sakrand	Jamal Keriyoo	Mullan Saand	Muhammad Ismail Keriyoo		43	
Shaheed Benazirabad	Shaheed Benazirabad	Qazi Ahmed	Mian Noor Mohammad Ja Kubba	Muquem Dahri	Muquem Dahri		38	
Shaheed Benazirabad	Shaheed Benazirabad	Sakrand	Daleel Dero	Sahib khan Jalalani	Pirbhat		41	
Tharparkar	Tharparkar	Diplo	Khetlari	Rohelo	Baghiya Sudhar	21	42	1206
Tharparkar	Tharparkar	Mithi	Jorou	Harpar	Bhaghia Itehaad		86	
Tharparkar	Tharparkar	Mithi	Vijuto	Tall	Bismillah		91	
Tharparkar	Tharparkar	Diplo	Sobhiyar	Chahou Soothar	Chahou Deep		68	
Tharparkar	Tharparkar	Islamkot	Manjhithi	Doonjh	Karoonjhar		38	

Tharparkar	Tharparkar	Mithi	Jorou	Bakhu Juneja	Kheer Thar		63		
Tharparkar	Tharparkar	Diplo	Khetlari	Pabohour	Khushhal Maroarra		67		
Tharparkar	Tharparkar	Diplo	Khetlari	Chachi Moora	Khushhal thar		43		
Tharparkar	Tharparkar	Mithi	Jorou	Kharo Dangro	Malwand Marroara		74		
Tharparkar	Tharparkar	Islamkot	Bapohar	Chahou Rahimoon	Mehran		77		
Tharparkar	Tharparkar	Kaloi	Kaloi	Mithi Ghycho	Mohrano		61		
Tharparkar	Tharparkar	Mithi	Malanhore Veena	Bharo jo tar	Rathore kheer sujag		44		
Tharparkar	Tharparkar	Islamkot	Kehri	Mithrio Soomra	Roshan Ragoon		61		
Tharparkar	Tharparkar	Mithi	Mithrio Bhatti	Malnhor Khahwria	Sada Bahar		40		
Tharparkar	Tharparkar	Islamkot	Bapohar	Mounghat	Sindh Amar		39		
Tharparkar	Tharparkar	Diplo	Kaloi	Soomar Khoso	Sujag hala		53		
Tharparkar	Tharparkar	Islam Kot	Manjhtai	Manjhtai	Sujhagh Mahrurah		52		
Tharparkar	Tharparkar	Mithi	Jorou	Layari Juneja	Sukhia Sangheeara		28		
Tharparkar	Tharparkar	Islamkot	Bapohar	Tooh Rahimoon	Surhan Rahimoon		53		
Tharparkar	Tharparkar	Diplo	Khetlari	Netaveri	Thar Maleer		57		
Tharparkar	Tharparkar	Islamkot	Bapohar	Vee Hinghorja	Vee Maroara		69		
Thatta	Thatta	Thatta	Gul Manda	Aadam Jakhro	Aadam Jakhro	19	52	924	
Thatta	Thatta	Thatta	Sonda	Ali Bhar	Ali Bhar / Habib Soomro		57		
Thatta	Thatta	MirPur Sakro	Ghulam Ullah	Ali Mohammad Kahyio	Ali Mohammad Kahyio		32		
Thatta	Thatta	MirPur Sakro	Ghulam Ullah	Haji Abdulllah Baloch	Haji Abdulllah Baloch		38		
Thatta	Thatta	MirPur Sakro	Gujjo	Haji Ilyas Babro	Haji Ilyas Babro		49		
Thatta	Thatta	Thatta	Bijora	Khamiso Khan Samo	Khamiso Khan Samo		57		
Thatta	Thatta	MirPur Bathoro	Jhok sharif	Mahi Dal	Mahi Dal		71		
Thatta	Thatta	MirPur Sakro	MirPur Sakro	Mohammad Raheem Dharoo	Mohammad Raheem Dharoo		40		
Thatta	Thatta	MirPur Sakro	Ghaghi	Mohammad Siddique Baloch	Mohammad Siddique Baloch		36		
Thatta	Thatta	Thatta	Tando Hafiz Shah	Raju Nizamani	Raju Nizamani		35		
Thatta	Thatta	Mirpursakro	Gujjo	Rehmatullah Katiar	Rehmatullah Katiar		35		
Thatta	Thatta	MirPur Bathoro	Hussain Pur	Rohel Khan Lashari	Rohel Khan Lashari		47		
Thatta/ Sujawal	Thatta	MP Bathoro	Bachal Gugho	M. Khan Samoon	Almadad MPG		57		
Thatta/ Sujawal	Thatta	MP Bathoro	Laiqu pur	Faqeer Ahmed Palijo	Faqeer Ahmed Palijo		67		
Thatta/ Sujawal	Thatta	MP Bathoro	Ali Akbar Shah	Haji Peerano Lund	Haji Peerano Lund		55		
Thatta/ Sujawal	Thatta	sujawal	Murad Pur	Haji Sikano Sodho	Haji Sikano Sodho		59		
Thatta/ Sujawal	Thatta	sujawal	Kheral	Nooh Walero	Nooh Walero		37		
Thatta/ Sujawal	Thatta	MP Bathoro	Laiqu pur	Pir M Bhanbhro	Pir M Bhanbhro		62		
Thatta/ Sujawal	Thatta	Shah Banadr	Ladyion	Shafi Mohammad Jat	Shafi Mohammad Jat		38		
Umerkot	Mirpurkhas	Umerkot	Sofi Faqeer	Atal Rajar	Bhitai	8	50	355	
Umerkot	Mirpurkhas	Samaro	Noor Khan Dhonkae at Cheema Farm	Cheema Fram	Cheema Farm		44		
Umerkot	Mirpurkhas	Umerkot	Dhebo	Punhoon Khan Rajar	Girhori		46		
Umerkot	Mirpurkhas	Pithoro	Chhachhiro @ Ghulam Hyder Shah	Missiri Bhand	Jago Faqeer		34		
Umerkot	Mirpurkhas	Kunri	Kunri Memon	Din Muhammad Doori	Khushhal		44		
Umerkot	Mirpurkhas	Pithoro	Makhdom Talib-U-Mola Colony	Makhdom Talib-ul-Moula Colony	Sarwari		55		
Umerkot	Mirpurkhas	Samaro	Samaro-1	Allahdad Chandio	Sindh Dhatti		39		
Umerkot	Mirpurkhas	Pithoro	Ghulam Nabi Shah	Habib Halepoto	Habib Halepoto		43		
							83	4065	4065

Appendix 4: Gantt chart for ILRI activities in Sindh Agriculture Growth Project -Livestock

Major Activity	Output	Intended outcome	Activities	Proposed partners	Major Activity				2017		2018				2019	
					Activity within Major Activity	measurable indicators	End of YR 3 status	End of Project Status	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
					Project Development Objective: Improved productivity and market access of small & medium producers in Dairy value chain											
Training Manuals/Reports	Developed training manuals as benchmark to induce higher productivity, input-output nexus and appropriate marketing arrangements for S&MP; Prepare reports for addressing disaggregated livestock related problems for integrate livestock production systems	Provide/address the successful market oriented/business model for higher livestock productivity and profitability.	Assessment of livestock value chains to identify limiting factors in respective districts/MPGs; Critical analyzing available marketing arrangements, facilitation and actors involve in livestock activities	Livestock and Fisheries Departments, MPGs, dairy processors, feed producers, public and private breeding institutions, animal health services, agricultural universities /academia	1. PRAs and/or consultative meetings with various stakeholders in respective MPGs/districts	Number of training manuals prepared/produce	Training manual for master trainers on Feeds & Feeding, animal health, Breeding & Reproduction, animal management, dairy farming and best management practices for livestock value chain, marketing & marketing systems	Written guidelines and set platform for best-bet interventions and model for S&MP								
Training	Improved the overall knowledge and technical skills of dairy sector stakeholders on various inputs-outputs and marketed oriented perspective	Enhanced and improve business oriented-integrated livestock production systems with robust private sector contribution; inclusive growth paradigm	Capacity building (theory of instructions) of various stakeholders including provincial livestock departmental staff, Milk Producer Groups (MPGs), private sector representative, NGOs and academia/scientist		1. Training of project staff and directorate staff on key aspects of livestock enterprises for improve livestock value chain 2. Impart training for district level provincial stakeholders including VOs and farm managers of selected project districts on all aspects of dairy production	Number of persons receiving training on skill development under Project Development Objective.	Group of around 200 (20 at Provincial level & 180 at District level) trained on livestock key aspects for business oriented integrated livestock production systems from different districts, including national scientists and extension staff, academics, (I)NGO staff, input suppliers with expertise on value	Livestock sector human resource development and orientation for facilitation for small & medium producer (S&MP) for livestock commodities for improve/better productivity and access to the marketing systems								

							chain analysis concepts available												
							3. Imparting/trickling livestock enterprises knowledge sharing with provincial/districts extension staff including AI technicians, livestock assistants and other stakeholders	A core group of around 3075 MPGs members/livestock farmers trained belonging to 153 MPGs on livestock value chain related aspects excluding national scientists and academics, (I)NGO staff, input suppliers and market agents	Deliver improved and enriched advisory services at the farmers door step for enhanced livestock productivity and access to the better marketing systems										
							4. Mentoring of MPGs members/livestock farmers through Job Instructional Technique (JIT)												
Exposure Visits (National/International)	Bridge gaps on modern livestock value chain practices and aligned livestock farmers with developed/modern tools for higher productivity and better access to the markets	Created awareness through various exposure visits nationally as well as internationally for better understanding of the market driven approaches and mechanism	Identification of national organizations/companies related to livestock value chain activities on certain aspects related to S&MPs	New Kenya Co - Operative Creameries Ltd (KCC); National Public/Private Companies	1. Preparing list of MPGs and/or other stakeholders selected for exposure visits and their necessary documentation	Number of stakeholders /exposure visits	National exposure visits (02) across the country	Modern livestock value chain practices and tools expose to the S&MPs to ensure higher livestock productivity and better market access/systems											
			Identification of international organizations/companies related to livestock value chain activities on certain aspects related to S&MPs					International exposure visit (01)											

Annex: Inception workshop presentations

- Overview of ILRI
- Overview on SAGP-L activities: Mandate, Progress and Way Forward
- Overview of Plan International Activities
- Overview of ILRI activities on SAGP-L
- Capacity development tools and methodologies: an overview