



USAID
FROM THE AMERICAN PEOPLE



Dairy and Rural
Development
Foundation



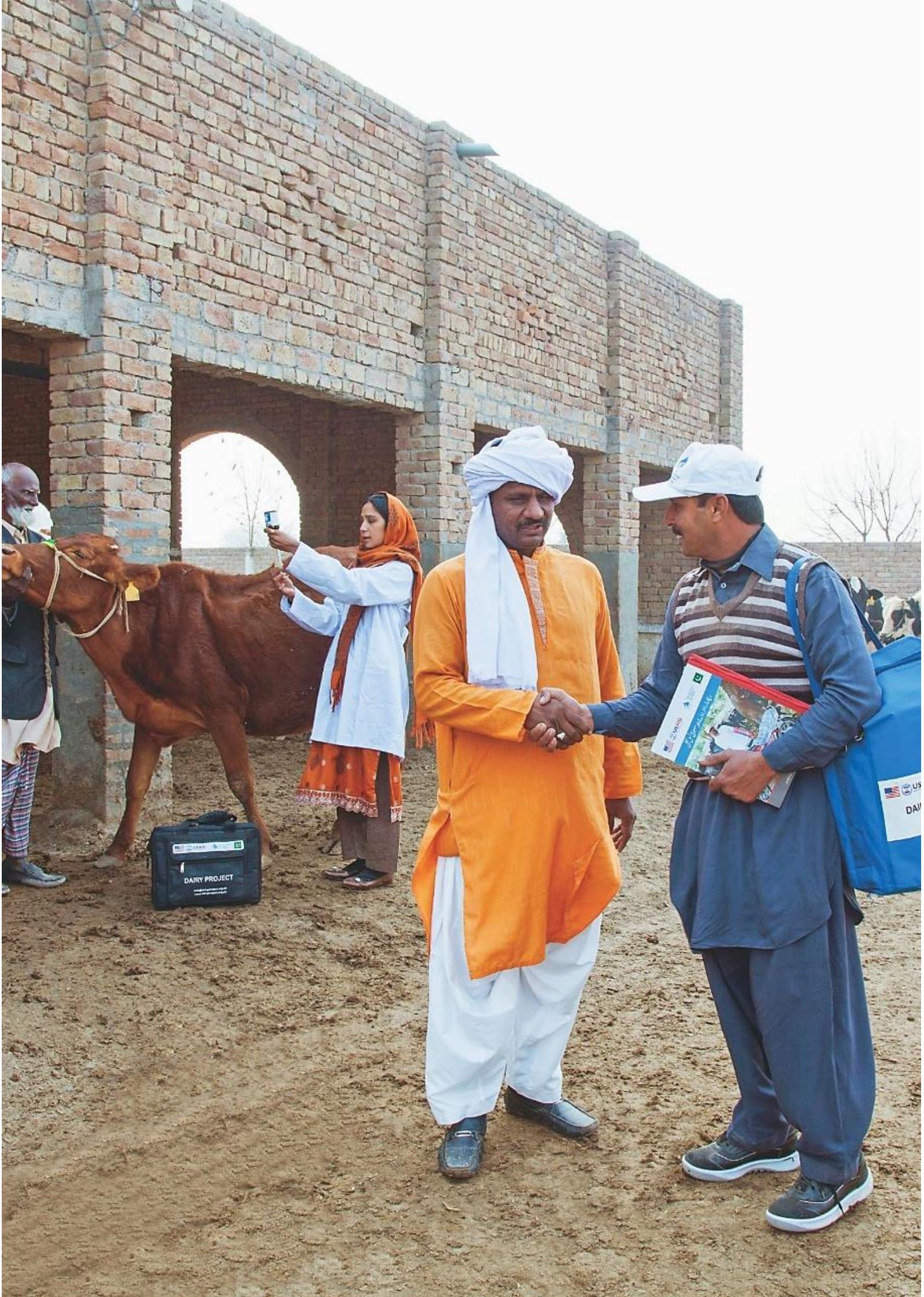
DAIRY PROJECT

QUARTERLY PROGRESS REPORT

October 2014 – December 2014



Disclaimer: The views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the United States Government.

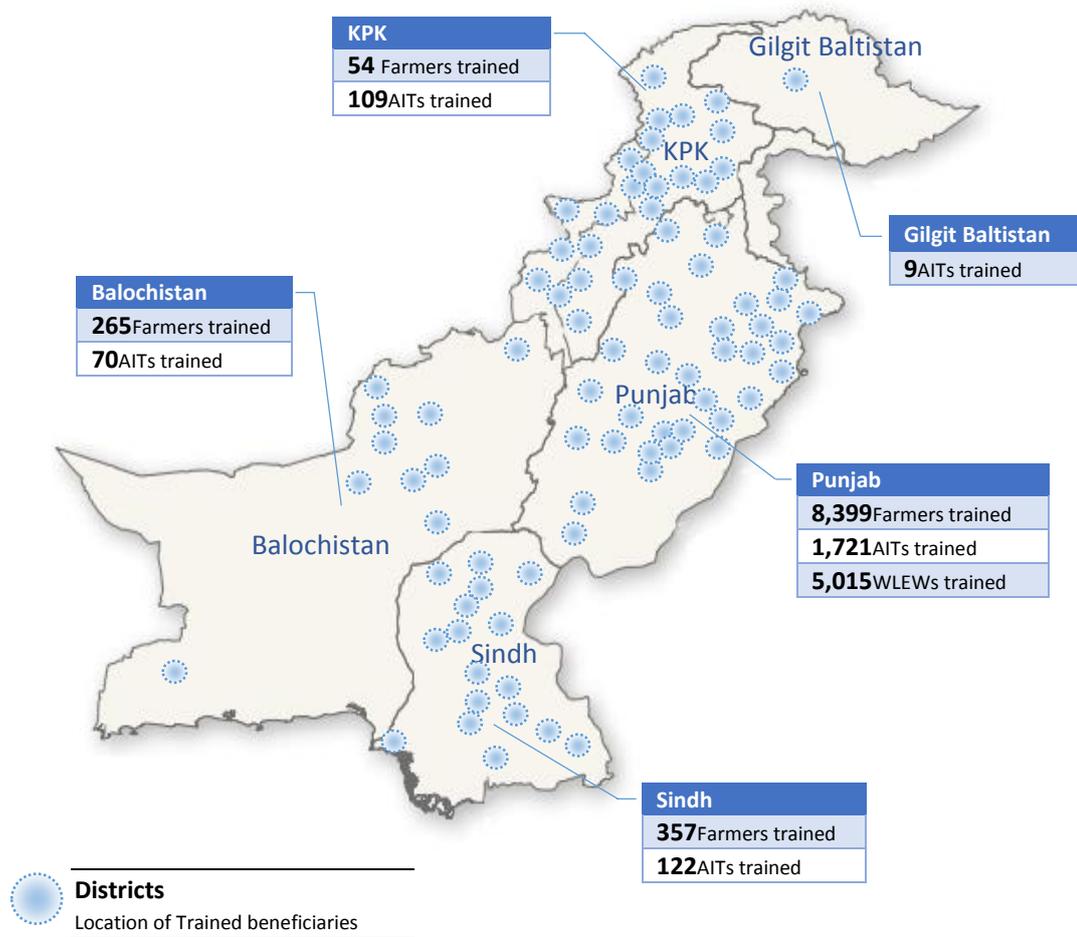


Input:

Over **300** dairy trainings and awareness classes provided to people from rural areas of **90** districts across Pakistan.

Output:

Over **16,000** trained beneficiaries making dairy farming sector efficient and providing extension services.



Outcome:

17% increase in milk yield of dairy animals

78% of the trained farmers adopting more than three best practices for dairy farming

5,200 young unemployed men and women set up their own business

Impact:

Increase in productivity of the dairy sector

Increase in trained farmer's average monthly income by **PKR. 6,000**

WLEWs and AITs earning on average **PKR. 1,091** and **PKR. 9,371** per month respectively

Contents

List of Tables.....	V
List of Figures	V
List of Acronyms.....	VI
Executive Summary.....	1
Financials	2
Progress & Performance.....	4
Farm Up gradation and Bio gas plants	4
Training and Support for Dairy Farmers	4
Training and Support for Artificial Insemination Technicians (AITs):	7
Training and Support for Women Livestock Extension Workers (WLEWs):	9
Communication, Awareness Campaign and Other Activities:.....	11
Issues, Lessons Learnt and Way Forward.....	13
Annexures:	14
Annex 1: Project Overview	14
Annex 2: Environmental Compliance.....	16
Annex 3: Performance Evaluation Sampling Strategy	19

List of Tables

Table 1: Financial Summary.....	2
Table 2: Expenditure Summary	2
Table 3: Number of Farmers Trained by Training Type	5
Table 4 Training Targets (2014-2016)	5
Table 5 Performance Indicators for Project Trained Farmers	5
Table 6 Bike Distributions - Province Wise	7
Table 7 Performance Indicators for Project Trained AITs.....	7
Table 8 WLEW Performance Indicators	9
Table 9 Social Issues faced by WLEWs.....	10
Table 10 Issue Faced and Remedies	13

List of Figures

Figure 1 Quarterly Growth in the Number of Trained Beneficiaries	1
--	---

List of Acronyms

AI	Artificial Insemination
AITs	Artificial Insemination Technicians
AOR	Agreement Officer's Representative
BOG	Board of Governors
BRSP	Balochistan Rural Support Program
CMA	Cumulative Moving Average
DRDF	Dairy and Rural Development Foundation
EMPP	Environmental Monitoring Program Plan
FOM	Field Operations Manager
FROS	Female reproductive organs
GM	General Manager
LBES	Livestock Business Entrepreneurs
LHW	Livestock Health Worker
M&E	Monitoring and Evaluation
MSI	Management Systems International
MTs	Master Trainers
NGO	Non-Governmental Organization
PD	Project Director
PMU	Project Management Unit
RFP	Request for Proposal
SMs	Social Mobilizers
TOR	Terms of Reference
TOTs	Training of Trainers
UAF	University of Agriculture Faisalabad
US	United States
USAID	United States Agency for International Development
UVAS	University of Veterinary & Animal Sciences
VTIs	Vocational Training Institutes
WLEWs	Women Livestock Extension Workers

Executive Summary

The Dairy Project is a five year intervention. It is a joint effort of the United States Agency for International Development (USAID) and Dairy and Rural Development Foundation (DRDF) to enhance rural incomes by increasing livestock productivity. During first three years the project provided trainings to 9,285 dairy farmers and some farm managers in best dairy farm practices to help them increase milk productivity that will eventually lead to increase in their income. The project has also provided trainings to 2,032 rural, unemployed young men as Artificial Insemination Technicians (AITs) and 5,014 rural, unemployed young women as Women Livestock Extension Workers (WLEWs) to assist dairy farmers by providing them with quality extension services. The Dairy Project helps in establishing AITs and WLEWs as entrepreneurs, once they are trained and certified by the University of Veterinary and Animal Sciences (UVAS), Lahore. With the extension being granted for two years, the Project further aims to train 40,000 small and commercial farmers along with 2,000 WLEWs and 1,000 AITs.

OIG audit was successfully completed in the reporting period and the project received good feedback from the auditors. After the completion of OIG audit the Project started the hiring process and aimed to fill all the key positions in the project. Field offices were procured by the project in the reporting period as well. Till date all the training processes and the SOPs are finalized by the key personals in the project and mobilization for one-day and seven-day farmers trainings are started in Vehari district.

Internal survey was conducted by M & E department to evaluate the performance of the beneficiaries trained during last three years. Even without any follow ups provided to them in the silent period of the project the beneficiaries are performing above expectations. This shows beneficiaries' potential to sustain in future. Survey results reveals that the milk yields of animals has been on average, 17 percent more compared to the baseline. Also, there was an increase in the demand of Artificial Insemination services during the last quarter which increased per month average income of AITs up to PKR 9,371 WLEWs had on average and income of PKR, 1,091.

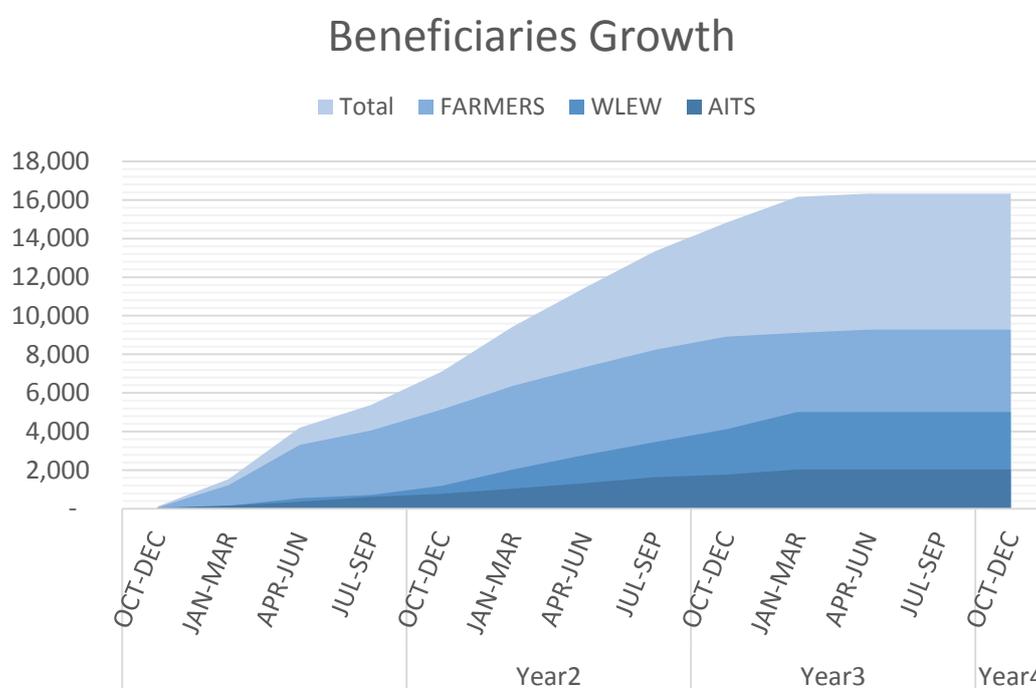


Figure 1 Quarterly Growth in the Number of Trained Beneficiaries

Financials

Aid for Sustainable Development

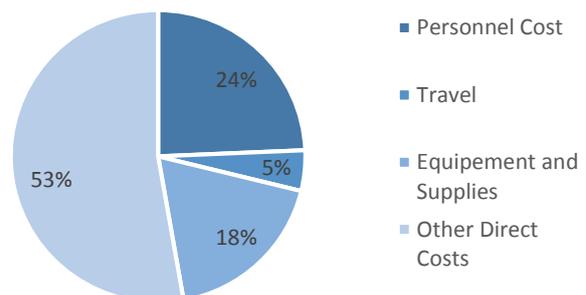
Table 1: Financial Summary

Description	Amount
Total Estimated USAID Amount:	\$21,018,293
Amount Obligated:	\$20,918,293
Leverage Amount (Non-Federal):	\$5,108,059
Total Project Funds Expended To Date (end September-2014):	\$14,284,910
Project Funds Expended During the Reporting Quarter (Oct 14 – Dec 14):	\$367,401
Obligated Project Funds Remaining Available:	\$6,633,383
Project Funds Allocated for the Next Quarter (January,15 – March, 15):	\$650,000

Table 2: Expenditure Summary

Expense Categories Under Cooperative Agreement	Expenditure during October-December 2014 (US \$)
Personnel Cost	89,365
Travel	16,476
Equipment and Supplies	67,662
Other Direct Costs	193,898
Total	367,401

Oct-Dec 2014 \$ 367,401





“Sustainable development is the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance.”

-Ban Ki-Moon

Progress & Performance

Marching Forward

Due to the vital importance of the livestock sector in Pakistan the Dairy Project, with its extensive training programs for dairy farmers, Women Livestock Extension Workers (WLEWs) and Artificial Insemination Technicians (AITs), is playing an important role in transforming livelihoods of rural communities. After achieving high success in the last three years now, the project stretches its efforts towards farm up gradations and bio gas plants with main focus on cluster building of the trained beneficiaries to ensure the sustainability of the project after its completion. The Dairy Project is being implemented in all four provinces, with a major focus on Southern Punjab within a time frame of five years (2011- 2016).

This progress report describes the operations and progress of the project in the period October 2014 to December 2014. For a detailed overview of the project, please refer to annex 1.

Farm Up gradation and Bio gas plants

Up-graded Village Level Model Farms

The project aims to facilitate 100 small dairy farmers, in different village centers, on cost share basis to upgrade their existing small farms to model farms at village level. There, the facilitated farmers will be implementing all best dairy farming practices and their farms will serve as model for neighboring dairy farmers. Moreover, the up graded farms will also act as a service hub for other dairy farmers to get input supplies for dairy practices and also bring them closer to the suppliers, making their dairy business more efficient ultimately reducing variable costs. Based on the learning from pilot phase in year three, the project designed Standard Operating Procedures (SOPs) for farm up gradation in consultation of all concerned departments and got it approved by the Project Director.

During the reporting period, the project farm up-gradation team inspected three farms up-graded in first phase, as per the agreement signed with the farm owners, are handed over to the dairy project training team in order to make required arrangements to start one-day training on those farms. Parallel to this, mobilization teams have started to mobilize the farmers for one-day training.

The Dairy Project received 1,100 applications against an advertisement about farm up gradation opportunity. After initial scrutinizing, about 100 applications were shortlisted by farm up-gradation team. Farm Manager for up-gradation along with his assistant visited the shortlisted farms to check whether the location and farm conditions are according to the requirements.

Bio Gas

Animal nutrition is an essential part of animal health and milk productivity, and fodder is one of the important nutrients for these animals. Cost of production of fodder is a major concern for the farmer considering this fact; the Dairy Project aims to shift 10 irrigation tube-wells running on fuel/electricity to manure bio-gas units. The slurry produced from these bio gas units will also improve the fertility of the land as an additional benefit to the farmer. During the current reporting period, the project worked on design and environmental aspects of the bio-gas plants, to be established in coming quarter.

Training and Support for Dairy Farmers

Soon after the extension award in October, 2014, the Dairy Project started hiring human and other resources to kick start the project activities. As of December 31, 2014, the Dairy Project has trained a

total of 9,285 farmers. Table 4 shows the total number of farmers trained during last three years bifurcated according to the training type.

Table 3: Number of Farmers Trained and Training Type

Type of Training	Farmers Trained
Two-Day Training	5,118
Four- Day Training	3,749
One Month Training	418
Total	9,285

In the reporting quarter the Project team finalized all the training processes and the SOPs for farmer's trainings. Manuals for the trainings are finalized by the field operations with the help of communications department. Field staff were hired by the project and after finalizing the mobilization strategies, the teams started mobilization of farmers for one-day and seven day training. Seven community meetings were held and 26 villages were visited by the mobilization teams. Training targets, to achieve in the two years, for famer component are as follow:

Table 4 Training Targets (2014-2016)

Type of Training	Targets (2014-2016)
One - Day Training	37,900
Seven - Day Training	2,000
One Month Training for commercial farmers and farm managers	100
Total	40,000

Table 5 below shows progress on indicators from the Monitoring and Evaluation Activity Plan. These indicators are calculated on the basis of quarterly follow up survey, which was conducted in January 2015. For this purpose, a random sample of farmers was selected from the Punjab region. Refer to Annex 3: Performance Evaluation Sampling Strategy for detailed sampling and evaluation methodology.

Table 5 Performance Indicators for Project Trained Farmers

Indicators	Targets	Achievement
Average increase in the project assisted household real annual income from dairy activities relative to the baseline*	At least 10 percent increase in the household's income from dairy activities.	18 percent
Percentage of farmers getting vaccination done, for FMD and HS, for their dairy animals	At least 40 percent of farmers	85 percent
Average monthly (per animal owned by project-assisted household) quantity of milk produced relative to the baseline	At least 10 percent increase in milk yield.	17 percent
Percentage of farmers using services of Women Livestock Extension Workers (WLEWs) relative to the baseline	At least 10 percent farmers using services of WLEWs.	10 percent
Percentage of project-assisted farmers using at least three best practices relative to the baseline (disaggregated by farmers/farm managers)	60 percent farmers adopted three or more best practices	78 percent

Indicators	Targets	Achievement
Number of villages reached with TV and/or Radio sketches	-	Year-4 campaign to be launched
Number of project-assisted farmers trained in business practices, and book-keeping	97.7per cent	100 percent

The farmers' performance is far beyond the Dairy Project's targets. On an average the milk yields of the animals' of the farmers' have increased by 17 percent, i.e. relative to baseline milk yields. This has been achieved by 78 percent of the farmers adopting more than 3 best practices after getting trained by Dairy Project. Moreover, 85% of the rural dairy farmers get their animals vaccinated for FMD and HS diseases; this clearly shows that now, farmers are more concerned about animal health and nutrition. Making small farmers aware about best dairy farming practices holds a significant impact on the milk yields of animals. This not only economically empowers the farmers but, is also beneficial for the country's economy. Investments in such farming practices on average among the farmers was of PKR. 23,000, as most of the farmers start by adopting level-1 dairy farming practices.



Training and Support for Artificial Insemination Technicians (AITs)

As of December 31, 2014, a total number of 2,032 AITs have been trained by the Dairy Project. Being the most successful component of the project, the project plans to train further 1,000 AITs in the extension phase focusing more towards Punjab province. Different training centers were visited and evaluated by the project in the reporting period to access the capacity of these centers and to find out most suitable center to conduct the trainings. Also, the project plans to keep live animals on these training centers for the beneficiaries to have good practical training of artificial inseminations. Previously, AITs whose bike evaluation was due were surveyed by Bike validation team. Out of 139 AITs surveyed 73 qualified for bike award. The breakdown of the qualified AITs according to province is as follow:

Table 6 Bike Distributions - Province Wise

Province	AITs
Baluchistan	12
Khyber Pakhtunkhwa	5
Punjab	31
Sindh	25
Grand Total	73

These beneficiaries will receive their bikes in the month of January-February, 2015 and the bike distribution for the beneficiaries trained in first phase will be concluded and future bike distribution will be done on new criteria approved in the Annual Implementation Plan (AIP) 2015. The table below, shows progress on indicators from the Monitoring and Evaluation Activity Plan, based on the quarterly follow up survey conducted in January, 2015:

Table 7 Performance Indicators for Project Trained AITs

Indicators	Targets	Oct-Dec 2014
Average monthly income of AITs from providing AI services relative to the baseline	Income of at least PKR. 3,000 (US\$ 32) per month	PKR. 9,371
Number of insemination procedures performed per AIT/ per month	-	34
Average number of inseminations per AIT per day	At least one insemination case per day	1.2
No. of pregnancy tests performed per AIT per month		35
Percentage of AITs providing their services as insemination technicians	60 percent of AITs	92 percent
Ratio of insemination procedures to pregnancy	At most 1.7 insemination per pregnancy	1.9
Percentage of project-trained AITs introduced to input suppliers	100 percent	100 percent
Number of AITs successfully trained in book-keeping, business management	100 percent	100 percent

In the reporting quarter there was an increase in demand for the Artificial Insemination services as the breeding season was going on. On an average, 34 cases were done by each project trained AIT/ per month. This increased the monthly profit of the AITs up to PKR. 9,371. Besides this, conception rate decreased slightly during this period due to less intake of feed which caused problems in the reproductive system of the animal (reported by AITs). Each AIT conducted 35 pregnancy tests per month on average. It was also observed that the AITs who were providing vaccination services along

with artificial insemination services are earning an average of PKR. 2,839 more, than those who are only providing AI services.



Training and Support for Women Livestock Extension Workers (WLEWs)

Training of WLEWs is one of the most important components of the project as it not only aims to improve the potential of the livestock sector through better animal health and extension services at the village level but also, contributes in empowering rural women. The project in the reporting period did not target to train nor trained any WLEWs further. As of December 31, 2014 the Dairy project trained 5,014 WLEWs during first three years of the project. Achieved results are beyond the set target, i.e. training 5,000 WLEWs.

With Project's previous efforts put into this component to help and support the beneficiaries at ground level by providing regular follow ups, the project will further focus on making clusters for such trained beneficiaries at the village level during the extension phase. The project aims to provide training to 2,000 rural women on dairy extension services, out of which 1,000 will be provided basic training whereas, 1,000 already trained will be provided refresher/ advanced training.

The project is also looking in to making liaisons with other initiatives and development bodies who are currently working or are planning to work in the area of providing empowerment to the women. This will result out to be a good learning activity for both the parties because joint planning of interventions in such areas will produce more effective and efficient results. Another opportunity to expand the work of the WLEWs is to introduce them to the beef market and make linkages for such women with the market input suppliers. In this way WLEWs will be able to expand their work and will have more sources of income.

Table 8 WLEW Performance Indicators

Indicators	Targets	Oct-Dec 2014
Average monthly income of WLEWs from livestock services relative to the baseline	Income of at least PKR. 3,000 per month	PKR. 1,091 ¹
Average number of farmers served by WLEWs per month relative to the baseline	-	18
Number of villages served by the WLEWs	2,000 villages	4,065 ²
Number of project-trained WLEWs providing services as self-employed extension workers	At least 60 percent of the trained WLEWs providing services	35 percent
Number of WLEWs operating / managing project-supported milk collection points in project-assisted communities	At least 20 milk collection points	16
Number of WLEWs trained to provide feed, nutrient, and other inputs for sale to farmers	60 percent	80 percent
Percentage of project-trained WLEWs introduced to input suppliers	100 percent	100 percent
Number of the WLEWs trained in business practices, book-keeping, and milk collection	October to December 2014 = 0	0
<p>¹: Combined income of both Livestock Health Workers (LHWs) and Livestock Business Entrepreneurs (LBEs). ²: Estimated Number of villages. According to the survey every WLEW visited 1.8 villages on average and we have trained 5,014 WLEWs. As per the project SOP of WLEWs' selection, we assume that at most 2 WLEWs are from one village.</p>		

Income levels of WLEWs decreased in the reporting period. Due to the project transition period there was no follow up being given to the beneficiaries during the last four months. On an average each WLEWs is earning PKR1, 091 with 35 health cases being done and selling 9 bags of Vanda per month.

Social barriers for the working woman in the rural society of Pakistan are quiet high. One of the objectives of the project is to empower such women in the society by making them entrepreneurs. In this way they will become financially independent and have a better position in daily family matters. These norms in the society are very hard to break, but from the below given table we can see that years' old customs are slowly changing. The percentages of the WLEWs who are still working is much better than the WLEWs who were made to leave their work. However, still these social barriers do exist which make the working of WLEWs a bit difficult in terms of mobility and interaction with farmers.

Table 9 Social Issues faced by WLEWs

Social Constraints Questions	WLEWs	WLEWs left
	Who Agree	
My family thinks that Women should be allowed to work outside the house	50%	39%
My family thinks that the women should only work to fulfil the economic needs	49%	62%
My family thinks that the primary responsibility of woman is to take care of the house	66%	77%
I have to face a lot of restrictions from my family to step outside the house	29%	52%
In my family it is seen as unethical for a woman to step outside the house alone	67%	74%
My family thinks that the woman of the house should not go outside village without a male member	62%	72%
My family thinks that male are more capable of running a business than woman	78%	82%
My villagers think that male can do better work of extension workers than woman	61%	84%
My family think that woman should not be talking outside the house with any male	58%	71%

Incomes of WLEWs decreased slightly as compared to the average, computed in the last survey, but during the last four months there was no follow up provided to them. Even without being followed up, WLEWs managed to keep their average income above PKR 1,000 which is more than the income they were earning before the project started providing them with follow up that was on an average PKR. 500. This shows that they have started gaining trust of the farmers and their business is flourishing. With project's focus towards cluster formation in the extension phase, the Project expects that WLEWs will be able to work more effectively in close coordination with each other. It will also be helpful in making them independent from project support and make them more sustainable.



Communication, Awareness Campaign and Other Activities:

- Necessary support was provided to ensure efficient roll-out of OIG Team's visit to Sukheki training and demonstration farm, on October 27, 2014. A semi-circle stall structure was developed to represent project's three components Dairy Farmer, Artificial Insemination Technicians (AITs) and Women Livestock Extension Workers (WLEWs).
- Developed draft MOU to be mutually agreed and signed by USAID-DRDF Dairy Project and University of Veterinary Animal Sciences, Lahore to ensure smooth roll-out of Project's training operations for two-year extension phase. Followed by this, an initial meeting was held at Vice Chancellor's office, UVAS, to review and discuss the areas of improvement in the draft MOU. Final review and sign-off ceremony is planned to be held in the month of February, 2015.
- Developed and discussed Mass Awareness Plan for the year-4 with Field Operations to ramp up the trainings offered under USAID-DRDF Dairy Project.
- The Communications department provided necessary support to help draft and release Dairy Project's advertisements in newspapers, based on requirements. These included EOI for rental accommodation and up gradation of dairy farms, job openings, request of quotations for vehicles to be procured, legal advisor/consultant required, request for proposals for impact evaluation of Dairy Project and food and mess services required.
- After initiating the procurement process for designing and printing of Dairy Project's diary and table calendar 2015, two themes were developed and shared with the project management and USAID DOCs out of which one theme was finalized. The selected theme showcases the key issues and challenges in dairy and livestock sector and the role USAID-DRDF Dairy Project is playing. Also, the Communications team rolled-out three-day photo-shoot to illustrate the month-wise topics briefed in the theme. Thereafter, final designs of Dairy Project's diary and table calendar/planner 2015 were shared with project management and USAID DOCs office.
- Communications team discussed to roll-out pilot phase of video modules, highlighting six best dairy farming practices. These videos will serve visual demonstration to beneficiaries on best dairy farm practices. These modules will be available in regional languages, and further uploaded on the Dairy Project and DRDF websites, a YouTube/Daily Motion as well as on mobile devices, CDs and USBs, to ensure free of cost distant learning and reach out a wider audience across the country. Followed by this, detailed terms of reference will be developed.
- Provided support to finalize draft of Annual Implementation Plan-Year 4 of USAID-DRDF Dairy Project.
- Finalized designing layouts along with text of training modules for One-day and Seven-day farmers' trainings with the help of field operations team.

USAID
FROM THE AMERICAN PEOPLE



Dairy and Rural
Development
Foundation



Together we are creating a

Together we are creating a **ROSHAN PAKISTAN**

Training and Support for Dairy Farmers
USAID-DRDF Dairy Project



Improving Livelihoods through



USAID
FROM THE AMERICAN PEOPLE



Dairy and Rural
Development
Foundation



**USAID-DRDF
Dairy Project**

Issues, Lessons Learnt and Way Forward

Gaining From Experience

Table 10. Challenges and Achievements

Component	Challenge	Achievements
Artificial Insemination Technician	Timeframe and human resources provided for Bike evaluation survey were not enough to meet project deadlines	Project immediately hired 6 vets (4 for Punjab, 2 for other provinces) to fulfill task within time line (15 days) in Punjab and Other Provinces (KPK, Baluchistan, and Sindh) with provision of all required resources.
	Site/ building selection to initiate AITs trainings preferably near slaughter house in Lahore.	Different sites/buildings were surveyed keeping in view the site selection criteria set for AITs training, eventually PVTC agreed to provide Dairy Project with full building at Burj Attari in Lahore for training and accommodation for to be trained artificial Insemination Technicians.
Women Livestock Extension worker	–	–
Farmer	–	–

Annexures:

Annex 1: Project Overview

The Dairy Project is a joint effort of the Dairy and Rural Development Foundation (DRDF) and the United States Agency for International Development (USAID) to foster sustainable increase in dairy and livestock productivity through adoption of best dairy farming practices, breed improvement, availability of timely extension services, and promotion of livestock businesses. The Dairy Project is being implemented in all four provinces, with a major focus on Punjab with a time frame of five years (July 2011- July 2016). The project contributes to the USAID's strategic objective of creating job opportunities and increasing income. The project objectives are aligned with Pakistan's development agenda, and its goal and objectives reflect national and regional priorities.

Farm up gradation and Bio gas plants

The major objective of the farm-up gradation is to provide on the ground model for small dairy holders at village level, where they could observe the best dairy farming practices are being implemented. Secondly, access to the large mega farms for all small dairy farmers in a village is not possible, so the universal training coverage is achieved by up-grading these farms as model and open them for training covering all corners of village and surrounding area. Thirdly, these up-graded model farms will serve as meeting point and input supply hub for project trained beneficiaries. The project aims to up-grade 100 farms with herd size of 5-25 dairy animals over the project life.

Animal nutrition is an essential part of animal health and milk productivity, and fodder is one of the important nutrients for these animals. Cost of production of fodder is a major concern for the farmer. The objective of establishing bio-gas plants is to shift irrigation tube-wells running on fuel/electricity to manure bio-gas units. The slurry produced from these bio gas units will also improve the fertility of the land as an additional benefit to the farmer. The project aims to develop such 5 bio-gas units during its extension phase.

Training and Support for Dairy Farmers

The primary objective of providing training and support to dairy farmers is to improve prevalent dairy farming practices for improving livestock productivity and enhancing incomes of rural households assisted by the Dairy Project. The project targets to train 48,600 progressive farmers and 500 commercial farmers and farm managers. From these, 800 farmers from Khyber Pakhtunkhwa, Sindh and Baluchistan are supported in attending the project's training courses in Punjab. These trainings cover several topics including improved feeding and animal nutrition, importance of improved breeds, basic animal health, and farm equipment and shed management. Trainings for farm managers include separate components on basic book-keeping and business skills. Knowledge of basic business know-how adds to the skills of farm managers. Consequently, all trained farmers have a better understanding of the milk value chain and they know how to profitably create linkages within it.

Classroom trainings are being conducted at model dairy farms, where modern dairy farm-management techniques are implemented. After successful completion of the training course, participants are provided with basic equipment kit that helps them to put into practice the newly learnt farming practices. Trained farmers are visited frequently for support and follow up.

Training and Support for Artificial Insemination Technicians (AITs)

The objective of AI training is to improve the provision of AI services to foster good quality breeds that will improve livestock productivity and enhance income of rural youth. Under this component, 3,000 young individuals from rural Punjab, from which 300 from Khyber Pakhtunkhwa, Sindh and Baluchistan will be supported in attending the project's AI training courses in Punjab. AITs receive five weeks of training with two months follow up support. Trainings include a mix of theory, demonstration and practical exercises related to insemination, safe handling and maintenance of insemination guns, liquid nitrogen cylinders for transporting semen and other equipment. Classroom trainings take place

at AIT Centers, established by the Dairy Project, and the Government of Punjab's Vocational Training Institute (PVTI).

Each AIT receives initial support to establish him as an entrepreneur. This support includes AIT kit (including Nitrogen Cylinders, Semen, Semen Straws, and basic AI related equipment). A motorbike is also provided upon meeting certain performance criteria.

Training and Support for Women Livestock Extension Workers (WLEWs)

The objective of this component is to increase the use and availability of livestock services provided by WLEWs for improving livestock productivity and enhancing income of rural females. Under this component, 6,000 WLEWs will be trained out of which 1,000 will be receiving refresher and advance training course. WLEWs receive one-month training on basic animal health management, basic preventive animal health measure, identification of the most common diseases, immunization, basic treatment, animal nutrition and animal hygiene. The curriculum is updated in collaboration with University of Veterinary and Animal Sciences (UVAS). WLEWs are also trained in feed supply and milk collection to give them the expertise to further grow their businesses. They also receive training in book-keeping and business skills as well as how to develop linkages with service (including financial) and input suppliers along the dairy value chain.

Extension worker trainings are conducted in village clusters, so that women can attend training near their homes. A training camp is set up on a temporary basis at each site. The project arranges for transport to and from the site. All master trainers are women veterinary graduates. The program is certified by the University of Veterinary and Animal Sciences (UVAS).

Upon completion of the course, WLEWs selected for animal nursing are given a veterinary kit, while WLEWs doing concentrates businesses are supported by a stock of animal feed. The program also provides workers with basic mobile phones to enable easy communication with clients and input suppliers.

Awareness Campaign

The overall objective of the Dairy Project's mass awareness campaign is to increase awareness about the best dairy farming practices with a focus to improve livestock productivity in Pakistan. Under this component, TV, radio and print infomercials, on subjects such as de-worming, vaccination, mastitis control, breeding, and feeding practices, are being developed. The awareness campaigns through TV, radio and print media are to be aired in about 2,000 villages' across Punjab and other provinces. Farmer days and silage-making days are organized to motivate farmers to adopt improved animal husbandry practices.

Annex 2: Environmental Compliance

INTRODUCTION

In order to effectively improve the productivity and efficiency of the dairy sector in Pakistan, Dairy Project engages in the following activities:

1. Training and Support for Dairy Farmers
2. Training and Support for Artificial Insemination Technicians
3. Training and Support for Women Livestock Extension Workers (WLEWs)
4. Establishment of 10 biogas plants.
5. Establishment of 100 upgraded model farms.
6. Distribution of 10,000 sexed semen doses

The issues in the Dairy Project's trainings related to Safety, Health and Environment are basically in line with adoption of best management practices, health, safety measures related to liquid nitrogen gas, proper disposal of waste such as semen straws, sheaths and animal organs, syringe handling, compliance to product specifications, proper disposal of waste such as empty medicine bottles, syringes, slurry utilization/disposal, waste handling and so on.

An Environmental Mitigation and Monitoring Plan (EMMP) has been developed which lists mitigation measures for these activities.

Environmental Report

In this quarter more emphasis was on training of the staff regarding the safety, health and environmental compliance procedures and development of SOP's so that all the required procedures could be managed accordingly during the course of training and field activities.

SOP's regarding organs disposal are prepared in which safe handling of these organs and disposal procedure are described. Handling of contaminated gloves, sheaths and straws are also discussed and responsibility of the concerned staff is being to dispose these waste materials and monitoring of these safe practices.

SOP's regarding syringes handling and disposal are also prepared so that the project staff as well as beneficiaries used these sharps materials with care avoiding needle pricks in this way chances of disease transfer and environmental pollution are minimized.

SOP's for medicine safe transfer, storage, handling and disposal are also prepared that the desired quality of the medicine is maintained and is utilized in the field without any harm to the environment as well as project beneficiaries.

Guidelines for liquid nitrogen handling are also established as it is a cryogenic liquid and could cause cold burn if contact with the skin occurs. Safety measures associated with the storage and transport of liquid nitrogen container is described in detail to ensure the safety of the staff dealing with these containers.

As far WLEWs component is concerned, it includes basic animal health management and disease preventive measures, identification of the most common diseases, immunization and basic treatment, animal nutrition and hygiene. The extension workers are also trained in feed supply and milk collection to give them the expertise to further grow their businesses.

The issues related to environment are adoption of best management practices, health safety measures related particularly to syringe and medicine handling, animal treatment, compliance to product specifications, proper disposal of waste and procurement of materials according to relevant regulations.

In order to ensure the compliance, dairy project staff like master trainers and social mobilizers are trained about environmental compliance by conducting a session of about 2 hour at Vehari site. Training was imparted to the master trainers about safe environment practices which include safe handling of syringes and medicines to treat the animals. Proper storage and disposal procedures were discussed in the training so that they are well aware about the proper disposal and storage procedures and transfer this knowledge to our beneficiaries as well. During the outdoor session, in order to ensure the safety, restraining method was suggested and environment awareness material was incorporated in the training module.

Dairy Project trains dairy farmers in best farm practices, improved feeding and animal nutrition, basic level animal health management, farm equipment management, shed management, and the importance of improved breeds. The issues related to environment are adoption of best management and related safety health and environmental practices.



Considering all these factors, master trainers are trained about bio-security measures, farm entry protocols, hygiene standards required with respect to milking and control measures like surf test and organoleptic test, milk storage requirement, proper feed storage/stacking procedures to avoid fungi in the concentrated feed, health safety measures associated with respect to silage making and relevant practices, restraining method and general hygiene standards at the farm. All of these issues were discussed in training session as well as incorporated in the training curriculum of 7 day and one month farmer training.

Health safety and environmental measures with respect to the biogas plant was also discussed which comprises of environmental pollution sources and their relevant mitigation measures. Alongside this, site selection criteria was also discussed with the field teams, so that the project site is selected in such a way that it does not pose any environmental hazard.



Work place safety and office ergonomics were discussed to avoid any kind of issues or injuries at workplaces discussed topics includes; proper housekeeping, electrical hazards, slips, trips and falls, office machines and appropriate sitting postures.



Work place safety hazard identification has been carried out at PMU and Vehari site and suggestions were given to the project team.

Some of the highlighted issues include; improper positioning of fire extinguisher cylinders, diesel containers for generator and poor housekeeping in the storage area, quality of the wires and

maintenance of the wires to avoid safety hazards. Concerned management was informed about these issues and they are willing to improve the office environment which may help in improving working environment.

Annex 3: Performance Evaluation Sampling Strategy

The primary objective of the evaluation activity conducted in January 2015 was to get a reliable indicator of the project's performance in three components vis-à-vis farmer, AIT and WLEWs trainings. Given logistical constraints, it was not possible to cover all districts from where the Dairy Project has trained beneficiaries. Therefore, for sampling purposes, the districts with less number of beneficiaries were excluded according to the set criteria. As the project's main focus is towards Punjab, the dropped districts were mainly from provinces other than Punjab. The remaining beneficiaries left for sampling were above 85% of the total trained, which is viable and a good representative of the population. .

For sampling purposes, proper statistical methods were adopted to determine the sample size for the survey. Confidence level of 90 percent and confidence interval of 5 percent were kept to gain more accurate insights to the impacts of the project. For the AIT component, 11 districts were covered by the random sample, whereas for the farmer's component, 10 districts were covered. In case of WLEWs, 11 districts were covered by survey sample. The evaluation sampling was also handicapped by the unavailability of baseline data, especially for the farmers' component. Hence, an evaluation design was adopted that allowed us to get both baseline and end line values. Detailed evaluation designs of each component are given below.

Farmer

In order to evaluate performance of the farmers, the strategy was designed keeping in view data limitations. Pre and Post methodology was adopted for the impact evaluation. Information regarding performance indicators was obtained in January 2015 on recall basis. Total of 263 farmers were randomly selected for the purpose of evaluation, from a total of 8,269 farmers trained.

Artificial Insemination Technician

To evaluate the performance of AITs, a total of 233 AITs were randomly picked to be surveyed out of 1,721 AIT from Punjab province. A Complete survey tool was designed to capture and measure the performance of these AITs.

Women Livestock Extension Workers

In case of WLEWs, a total of 357 WLEWs were sampled out of 5,014 WLEWS trained by the Dairy Project. A tool was designed in which the project could also capture all the social barriers these rural women have to face in their line of work, along with other performance indicators.

Survey Methodology:

Survey tools are designed in accordance with the project's key outcome indicators illustrated in Monitoring and Evaluation (M&E) Activity Plan. Keeping in view the experiences from the past quarterly surveys, survey tools are refined and necessary questions were added to gather more insights into the impacts of trainings provided by Dairy Project. Enumerators' training is an essential part of quality data fetching. A complete training session was organized in Vehari for all the enumerators conducting the survey. Enumerators were introduced to the probing methods and all research instruments were briefed one by one. After complete orientation on probing techniques and survey instruments, mock sessions were held which were observed and later on, trainers provided their feedback on mock sessions one by one.

After the finalization of questionnaire and providing required briefing to the enumerators, a pilot survey was carried out in Vehari zone. This not only refined the tool even further, but also helped the enumerators to get first-hand experience. Two such pilot activities were carried out before final implementation. After successful pilot testing and planning, the survey was carried out in Vehari and Bahawalpur.

To ensure the quality of data, M & E implements a comprehensive monitoring plan with the help of M & E zonal staff. M & E officers make random checks on the interview sessions carried out by the

enumerators to ensure accuracy of the data collected. Complete data flow procedures are documented with all the data quality and verification checks explicitly mentioned. After receiving the questionnaires from the enumerators and before entering it to the database, the data is verified by Monitoring and Evaluation Officer and Assistant Zonal Manager at two different stages to ensure the quality and accuracy of data. Even though the data is received after rigorous checking, the analyst further cleans it and checks for errors and outliers to have a refined data set for analysis. Initially, data is analyzed by generating explanatory graphs and doing cross tabulations, to get a better understanding of the facts and figures provided in data. Afterwards, important ratios and percentages are computed against the performance indicators to calculate project's success rate in comparison to the targets.



SUCCESS STORY

USAID helps impoverished, unemployed but committed rural women to take the charge and support their families through skills based training program.



“USAID’s Dairy Project invested in me, and I am extremely thankful to the team for enabling me to become an earning hand with improved socio-economic status.”

Nasreen Kausar, Dairy Project trained Woman Livestock Extension Worker (WLEW) from Village # 14, 367/WB, Tehsil Duniya Pur, District Lodhran

Commitment, enthusiasm and dedication together define Nasreen Kausar’s journey towards success through hardships. While living in Village # 14, 367/WB, Tehsil Duniya Pur, District Lodhran, her husband died 18 years back leaving her isolated with six little children. At that time she pulled her sleeves with courage to win bread for her children. She started working in a small nearby school as a care taker, running a small canteen in the same school. “I was earning approximately PKR 2,000 – 2,500 a month and my all children were studying in that school free of cost but still this amount was not enough to make both ends meet”, says Nasreen.

In the meantime, she heard about Women Livestock Extension Worker’s (WLEWs) training from USAID-DRDF Dairy Project’s team. USAID-DRDF Dairy Project is providing trainings to impoverished and marginalized women from Punjab’s rural communities to become livestock extension workers. After a detailed interview, finally Nasreen got selected for the training in June 2013 which further led her towards another milestone of her life. “I was really enthusiastic to learn WLEW’s work after getting to know its detailed description, benefits and scope. Followed by this I left the school job before formal start of this training” she added.

During the training, she learned about the basic animal health care, disease prevention and treatment, livestock management, timely vaccination, importance of aflatoxin and record keeping etc. After the successful completion and certification of four week training she was provided with a basic startup kit and a cell phone to initiate her small business. She was also introduced to her village community farmers during a “Farmer Day” held at her native village. Her village community is getting real benefit of her services. “Initially Nasreen used to offer her services to farmers even sometimes free of cost, but now as we know the quality of her work we call her any time whenever required to provide basic extension services to our animals,” says M. Aslam (a local village farmer).

Her income is improved from PKR 2,500 to 8,000 a month. “Now I am able to provide basic necessities to my children and I am living a respectable life in my community, my three daughters are married now and my one daughter and two sons are studying. I am very thankful to USAID-DRDF, Dairy Project team for providing me with an opportunity to improve my livelihood. I will continue working in the same field in future”, she added happily. Now a smile on her face and contentment in her expressions clearly shows how satisfactorily she is living with her family.



SUCCESS STORY

USAID-DRDF Dairy Project helps to foster sustainable improvement of dairy and livestock sector for economic empowerment and better tomorrow of rural communities



“I am thankful to USAID-DRDF, Dairy Project for uplifting and transforming my life through a skillful training. Hopefully in future I will be able to excel in this profession”

Abdul Qayum AIT, Village # 535 EB Tehsil & District Vehari

Aristotle says “Poverty is the parent of revolution or Crime”; Unemployment is the basic factor leading towards poverty ultimately resulting into utter dejection. However, fortunately unemployment resulted out to be an entrepreneurship opportunity for Abdul Qayoum USAID-DRDF, Dairy Project’s trained Artificial Insemination Technician. While living in Village # 535/B, District Vehari, the 21 year old bachelor was always very concerned about his earnings. His father being old was not able to make both ends meet for his family of eight. “I wanted to help my old father by earning something but, all my efforts remained useless until I met Dairy Project’s team. They informed me about the importance of Artificial Insemination training program and the scope of AITs’ work enabling a decent earning to unemployed rural youth”, says Abdul.

After going through an elaborate selection process, he was finally selected for AI training course held at Burj Attari, district Sheikhpura. During the course of time, he learned about Rod Passing and conducting pregnancy tests for cows/buffaloes for the optimal health and production of animals. “After getting hands on training, I received an initial startup kit by Dairy Project to kick start my small entrepreneurship. The kit includes; nitrogen gas for safe storage of semen and other related equipment”, said Abdul. Further, his scope of work was introduced to the community farmers during an induction meeting organized by dairy project team. They were informed about his AI’s training and kinds of services he will be able to provide them. “It was the real turning point of my life”, He added happily.

His village community is very satisfied with his work as he is providing AI services timely, effectively and efficiently throughout his village. According to a village locale, Abdul Qayum is a real gem for them; he is working as farmer’s right hand throughout his community even outside too. Because he is providing local as well as imported semen doses for improved breeds and milk yield for increased incomes.

USAID-DRDF Dairy Project conducted a performance evaluation survey after three months of his training; it was a sample based survey through which pre-defined conception rate is determined. Abdul was awarded with a free of cost motorbike because of his high performance (i.e. 100% conception rate) which further assists him in expanding the scope of his AI services even in other nearby villages. “Though initially it was difficult for me to reach out remote villages in time, but now this problem is also resolved”. Said Abdul

“I am attending approximately 100 cases a month and earning approximately PKR 25,000 per month. I have spent the profits onto the repair and maintenance of my house. I have tried to impart good education to my brothers and sisters too. My family is very satisfied and happy with my earnings and now they have better access to health and education facilities affirms Project trained AIT.



SUCCESS STORY

USAID-DRDF Dairy Project helps to foster sustainable improvement of dairy and livestock sector for economic empowerment and better tomorrow of rural communities.



“I am very thankful to USAID-DRDF Dairy Project for rebuilding the standard of my Farm”.....

Muhammad Shahid (Commercial farmer)
resident of Village # 31/WB, District Vehari

Improved dairy farming practices not only benefit the traditional or commercial farmers in terms of economics but also owe to increased milk yield. With the objective of economic growth through dairy and livestock development, USAID-DRDF, Dairy Project is providing trainings to small and commercial dairy farm holders. Similarly, for, the dairy farmers’ training program resulted out to be startling. The 42 years old farmer has three children and he was previously working in Saudia Arabia as an AC technician and after retirement, he came back to Pakistan and joined his father’s small dairy farming business having no other source of earning with him to feed his family. But due to old farming practices and less education, his father was not able to transform his small farm to a commercially viable farm. At that very time, his father’s herd size was 10-15 animals out of which 05 (five) were milk producing.

Shahid learned about USAID-DRDF, Dairy Project’s farmers’ training from project team and after initial interview and entry test, he got an opportunity to learn modern dairy farming practices that include; importance of improved breeds, silage making, deworming and vaccination, animal care, shed improvement and its importance, animal’s free access to water, record keeping, balanced diet, calf rearing etc. But due to inadequate resources his scope of work remained limited.

USAID-DRDF Dairy Project is also providing farm up gradation opportunities to selected dairy farmers on cost-share basis with an objective to provide an improved infrastructure for farmers to implement best dairy farming practices and provide a model structure for other farmers. Regarding this, Dairy Project advertised in the newspapers about farm up gradation opportunity preferably for dairy project’s already trained farmers having a herd size ranging from 5-25 animals; Muhammad Shahid also applied according to the set criteria and fortunately got selected for the same.

Thereafter, Dairy Project provided him 50 percent cost-share support to up-grade his small farm into commercially viable model dairy farm. There, he is implementing all previously learned best farm practices also, with improved breeding patterns. His herd size is now increased from 15 to 30 animals. “I did not purchase any new animals but, now I am implementing modern breed improvement techniques to improve breeds. Now my lactating cows and buffaloes are producing 5-6 liters a day which was previously 3-4 liters and my 5 cows and buffaloes are milking whereas 4 are pregnant at the moment. My income is also increased from PKR 12,000 to 24,000 a month.

“My village community members often discuss their livestock issues with me and I try to provide them with best possible solutions I learned during farmers’ training. My upgraded shed is a source of motivation for others and many of them have improved their farms as well”, he said happily.