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USAID-DRDF DAIRY PROJECT
QUARTERLY PROGRESS REPORT

DAIRY PROJECT

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FOR APRIL– JUNE 2013

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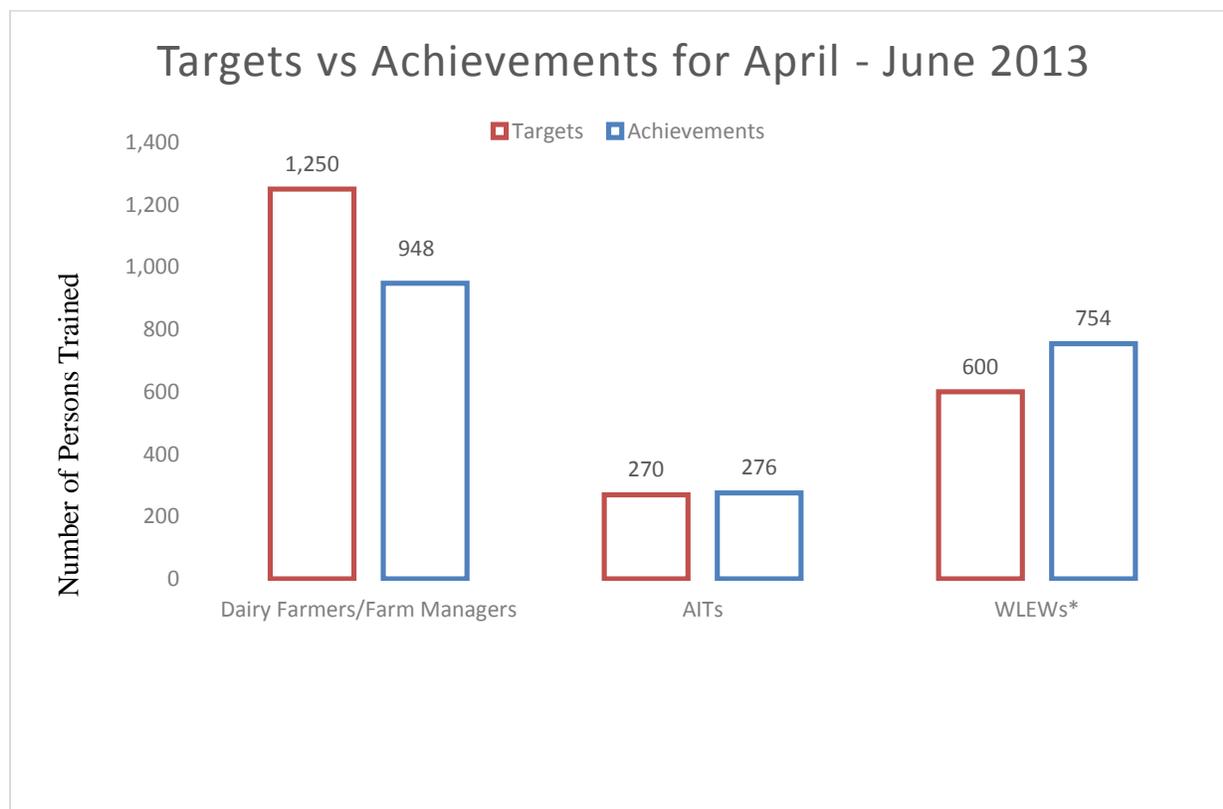
List of Acronyms

AI	Artificial Insemination
AITs	Artificial Insemination Technicians
AOR	Agreement Officer's Representative
BOG	Board of Governors
DRDF	Dairy and Rural Development Foundation
FM	Field Manager
GM	General Manager
M&E	Monitoring and Evaluation
MSI	Management Systems International
MTs	Master Trainers
NGO	Non-Governmental Organization
PD	Project Director
PMP	Performance Monitoring Plan
PMU	Project Management Unit
RFP	Request for Proposal
LHW	Livestock Health Worker
LBEs	Livestock Business Entrepreneurs
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
ZM	Zonal Manager

Executive Summary

The Dairy Project is a mutual collaboration of United States Agency for International Development (USAID) and Dairy and Rural Development Foundation (DRDF) for enhancing rural incomes through increased livestock productivity. The project envisages training 9,000 dairy farmers and 100 farm managers on best dairy farm management techniques. It also aims to train 2,000 Artificial Insemination Technicians (AITs) and 5,000 Women Livestock Extension Workers (WLEWs) and establish them as self-employed entrepreneurs.

A total of 948 farmers received training in best farm management practices in the second quarter. The project has provided training to a total of 7,341 farmers till June 2013. Among the farmers who received training in the second quarter, 236 farmers received two-day training, 639 farmers received four-day training and 73 farmers received one month training for farm manager. Additionally, 276 AITs and 754 WLEWs also successfully completed their respective trainings. The project exceeded AITs and WLEWs training targets in the reporting period. The project also achieved income targets for farmers and AITs. Furthermore, target regarding milk yield was also attained. It is encouraging to know that about 90 percent of the farmers surveyed after one year have adopted at-least 3 best farm management practices.



These trainings are yielding expected results to a large degree. There is a positive contribution in net incomes of farmers from dairy farming, while AITs are earning an average profit of Rs. 4,626 per month. WLEWs are also striving hard to make a market for themselves despite the societal challenges (Almost 37 % WLEWs perceive work environment as unfavorable and 31 % face

mobility restrictions.) Net incomes of WLEWs in recent months are around Rs. 600 per month. However, there are positive indicators regarding self-esteem and support from family.

In addition to trainings, awareness campaigns are launched on best dairy farming practices. During the reporting period April-June, 2013, Communications team launched 10 street theatre shows. A nationwide TV campaign was also launched to promote progressive farming practices. A concurrent feedback and monitoring unit of the Communication department has setup a toll-free number to get queries from farmers around the country. Moreover, the Dairy Project also participated in International Conference on Institutions, Growth and Development in Pakistan organized by Government College on May 2nd and 3rd 2013.

Dairy Project also participated in Dawn Agri-Expo held at Lahore Expo Center where communications team set up a miniature village *chopal* set at the project's stall. Skits on best dairy farming practices were performed by the field staff. Stall attracted 400 people during the two-day exhibit.

Dairy Project has started construction of a Bio-Gas Plant at village 569 EB, district Vehari. This plant will be handed-over to a local cooperative for operation and maintenance, Win-Rock International will also provide a subsidy of PKR 80,000 to the cooperative.

Dairy Project is also continuing with strict environmental compliance and monitoring in its trainings. An environmental compliance report is given in annex 3.

Financial Summary

Table 1: Financial Summary

Description	Amount
Total Estimated USAID Amount:	\$14,018,777
Amount Obligated (as of 30 th June 2013):	\$14,018,777
Leverage Amount (Non-Federal):	\$3,407,059
Total Project Funds Expended To Date (end June-2013):	\$8,448,829
Project Funds Expended During the Reporting Quarter (April 13 - June 13):	\$1,705,926
Obligated Project Funds Remaining Available:	\$5,569,948
Project Funds Allocated for the Next Quarter (July 13 – Sep 13):	\$1,501,975

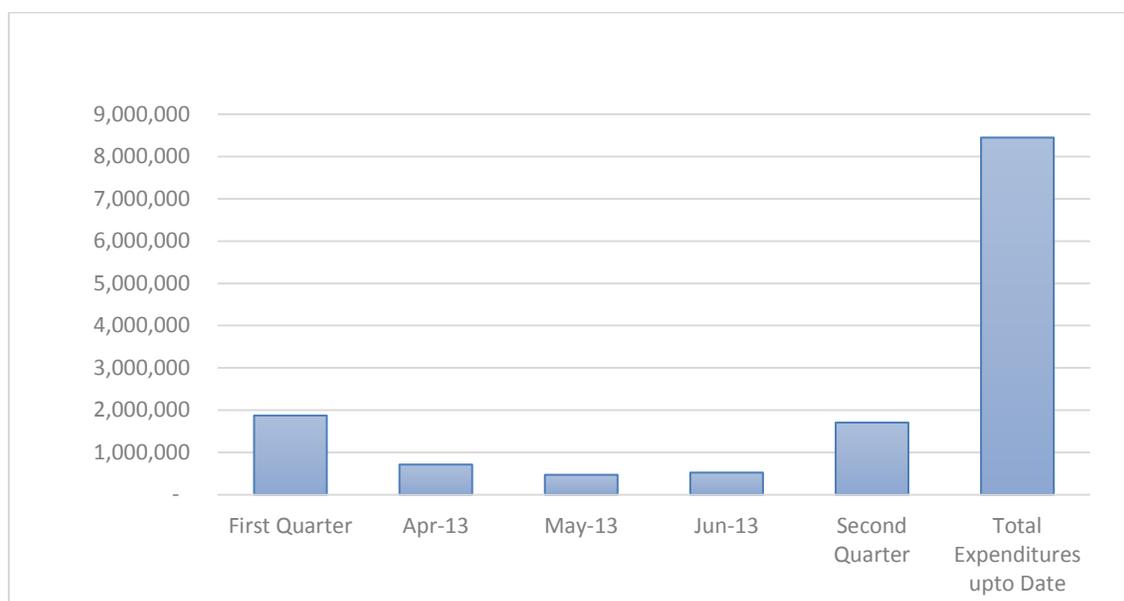


Figure 1: Quarterly Expenditures

Table 2: Expenditure Summary

Sr.No.	Expense Categories Under Cooperative Agreement	Expenditure during Jan-Mar 2013 (US \$)	Expenditure during April-June 2013 (US \$)	Expenditure up to June 30, 2013 (US \$)
1	Personnel Cost	226,553	200,004	1,013,726
2	Travel	134,305	162,479	600,961
3	Equipment and Supplies	866,279	613,822	3,624,143
4	Other Direct Costs	646,019	729,621	3,209,999
	Total;	1,873,156	1,705,926	8,448,829

Section 1: Project Progress and Performance

Introduction

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. Due to the vital importance of livestock sector in the rural economy of Pakistan, the Dairy Project's extensive training programs for dairy farmers, Women Livestock Extension Workers (WLEW), and Artificial Insemination Technicians (AITs) are playing an important role in transforming livelihoods of rural communities. The Dairy Project is being implemented in all four provinces, with a major focus on Punjab with a time frame of three years (July 2011- July 2014).

This progress report describes the operations and progress of the project in the period April 2013 to June 2013. For a detailed overview of the project, please refer to annex 1 of the report.

Component 1: Training and Support for Dairy Farmers

The Project continues to train farmers through two-day and four-day training programs. During the reporting period, Dairy Project trained 948 dairy farmers. The comprehensive project target for two-day training farmers was achieved in May, 2013 and since then the two-day trainings have stopped. Moreover, Dairy Project is also providing one-month training for farm managers at the Sarsabz and Sukheki training farms. The project has trained 73 farm managers in the current reporting period.

The month wise and training type wise distribution of trained farmers is given below.

Table 3: Month-wise Information on Training of Farmers

Month	2 Day Training	4 Day Training	1 Month Training	Total
April, 2013	214	132	26	372
May, 2013	22	189	25	236
June, 2013	0	318	22	340
Quarterly Total	236	639	73	948



Figure 2: Practical demonstration of Surf Field Matitis Test & Vanda Ingredients Preparation

The project has provided training to a total of 7,341 farmers till June 2013. This includes 236 farm managers who participated in the one month training program. Mobilization for the selection of more dairy farmers is continued in Multan and Vehari.

Table 4: Farmer Training

Sr. No.	Indicators	Apr -June 2013
1	Beneficiaries targeted during the reporting period	1,250**
2	Beneficiaries reached during the reporting period	948
3	Beneficiaries targeted to date	7,395
4	Beneficiaries reached to date	7,341

** Target calculation is based on previous quarterly reports and targets revised on October 2012.

Table 5 shows progress on indicators from the Performance Monitoring Plan (PMP). These indicators are calculated on the basis of quarterly follow up survey conducted in July 2013. For this purpose a random sample of farmers trained in April 2013 and April 2012 was used. Refer to Annex 4 for detailed sampling and evaluation methodology.

Column 3 of table 5 summarizes performance of farmers after 3 months of their training. Column 4 reports the difference in performance between farmers trained in April 2012 and April 2013. It takes time in adoption of the best practices and their subsequent effect on milk production. It is thus necessary to measure milk yield of animals owned by project trained farmers after a considerable lag. For this analysis two groups are formed, group A was trained in April 2013 and group B was trained in April 2012. Column 3 reports results of group A. Short term performance is basically based on the change in indicators after training while long term performance is calculated by comparing the indicators across two groups for June, 2013.

Table 5: Performance Indicators of Farmers

Sr. No.	Indicators	Targets	Short term performance Apr- June 2013 (Group A)	Long term performance June 2013 (Group B- Group A)
1	Average increase in the project-assisted household real annual income from dairy activities relative to the baseline	At least 10 % increase in the household's income from dairy activities.	20.5% ¹	15%

Sr. No.	Indicators	Targets	Short term performance Apr- June 2013 (Group A)	Long term performance June 2013 (Group B-Group A)
2	Incidence of Hemorrhagic Septicemia and Foot and Mouth Disease in: a). dairy animals owned by project-assisted households; and b). dairy animals of farmers assisted by WLEW relative to the baseline	At least 20 percent reduction in the incidence on average.	Incidence of HS Apr, 2013=2 Animals Jun, 2013=3 Animals Incidence of FM Apr, 2013=1 Animals Jun, 2013=7 Animals b)No data available	Incidence of HS Jun, 2013=8 Animals Incidence of FM Jun, 2013=20 Animals
3	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.	0.91 Liter/Animal (31.4%) ² (After seasonal adjustment)	0.66 liter/animal (15%) ³
4	Percentage of farmers using services of Women Livestock Extension Workers (WLEWs) relative to the baseline	At least 10 percent farmers using services of WLEWs.	Apr, 2013=3.17% Jun, 2013=17.46% Percentage increase: 14.2%	Jun, 2013=13.07%
6	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 more best practices	55.56%	90%
7	Number of villages reached with TV and/or Radio sketches	At least 700 villages per year	67 Districts ⁴	
8	Number of project-assisted farmers trained in business practices, and book-keeping	97.7% ⁵	100%	100%

1: The increase in dairy income is calculated on constant April 2013 milk selling prices. Furthermore, the proportion of milk sold in each month is kept constant to remove the effects of change in milk selling behavior.

2: The calculation is made after adjusting the seasonal fluctuation by using a milk production adjusting factor based on milk collection data of Nestle from 2007-2009. For details see annex 4

3: This is the difference between per animal yield of animals owned by farmers trained in 2012 against farmers trained in 2013.

4: Number of district reached is based on the media firm reports. However, campaign is run through national TV channels which may cover the whole country. For details see annex 5.

5: Calculated from PMP

Dairy Project comprehensively achieved most of the targets set for April-July, 2013 for this component in the Annual Implementation Plan (AIP) 2012-13. Overall number of farmers trained (7,345 farmers) is very close to the targeted number of 7,395. Moreover, there has been a significant increase in milk yield and dairy income after seasonal adjustment. The increase in yield for Group A is 31.4% that is 0.91 liters per animal. Moreover, those farmers that were trained last year gained an additional 0.6 liters per animal. Number of farmers getting services for their animals from project trained WLEWs has also increased substantially. Before training, only 24 animals of 2 farmers were treated by WLEWs. After training 104 animals of 11 farmers were treated by WLEWs. There has been a slight increase in the incidence of HS and FMD diseases in animals. In April 2013, 2 animals of 1 farmer had HS and 1 animal of 1 farmer had FMD. In June 2013, 3 animals of 2 farmers had HS and 7 animals of 1 farmer had FMD. Thus for over 99% of farmers, the HS and FMD rate remained low. In adoption rate of best practices, there are huge gains over time. About 55% of the farmers surveyed after three months of training adopted at least three new best practices while 90% of the farmers surveyed after one year of receiving training did so.

Dairy Project's follow-up team for dairy farmers continued individual as well as group meetings with project-trained farmers, WLEWs and AITs to provide technical assistance. A total of 278 community meetings were conducted in this reporting which were attended by 18,309 farmers. In farmers help camp free of cost treatment is provided to the animal by trained WLEWs. About 21,196 animals were treated in 378 farmer help camps. Farmers were also trained in silage preparation through silage making shows conducted in differed areas. About 93 such shows were conducted in this reporting period which were attended by approximately 6,727 farmers. Moreover, 166 inter-beneficiary meetings were conducted to link the farmers with AITs and WLEWs. Follow-up activities help ensure optimum use of the support kits received by the farmers and help them adopt best dairy farming practices. Follow-up team also provided technical support to the project-trained farmers at their respective farms for better shed designing and other technicalities regarding dairy farming and silage making.



A training session on breed improvement



A training session on silage preparation

Component 2: Training and Support for Artificial Insemination Technicians

The project continued to train AITs on a regular basis. During the reporting period, the project successfully trained a total of 249 AITs. Batch-wise distribution of AITs is given below:

Table 6: Training of AITs

Batch	Training Dates	Total	Passed
16	Mar 26- April 30, 2013	115	97
17	Apr 25 -May 31, 2013	90	83
18	May 26- June 30, 2013	98	96
	Quarterly total	303	276

Training of further batches has continued on schedule. The selection process of 19th batch of trainees is ongoing in Rahim Yar Khan District while mobilization of 20th batch in Sadiqabad and Liaquatpura is also in progress in parallel.

Dairy Project's follow-up team continued to conduct the weekly and monthly meetings of previous batches of AITs for technical support, resolving issues related to semen and gas supply, and collection of data.



Table 7 shows salient training achievements of the AIT component.

Table 7: Training of AITs

Sr. No.	Indicators	Apr-June 2013
1	Beneficiaries targeted during the reporting period	270**
2	Beneficiaries successfully trained during the reporting period	276
3	Beneficiaries targeted to date	1,360**
4	Beneficiaries successfully trained till June 30, 2013	1,296

** Target calculation is based on previous quarterly reports and targets revised on October 2012.

The table below shows progress on indicators from the PMP based on the quarterly follow up survey conducted in July 2013. For this purpose a random sample of AITs trained till March 2013 was used. Refer to Annex 4 for detailed sampling and evaluation methodology.

Table 8: Performance Indicators of AITs

Sr. No.	Indicator	Targets	April-June 2013
1	Average per month income of AITs from providing AI services relative to the baseline	(for each year): Income of at least Rs. 3,000 (US\$ 32) per month	Rs. 4,626 ¹
2	Number of insemination procedures performed per AIT per month		24.73
	Average no. of inseminations per AIT per day	(for each year): At least one insemination per day	0.82
3	No. of pregnancy tests performed per AIT per month		16.14
4	Percentage of AIT trainees providing professional services to communities	60% of AITs	90.91%
5	Ratio of insemination procedures to pregnancy	(for each year): At most 1.7 insemination per pregnancy	1.34 ²
6	Number of AITs trained	April-June, 2013: 270	276
7	Percentage of project-trained AITs introduced to input suppliers	100%	100%
8	Number of AITs successfully trained in book-keeping, business management	100%	100%

1: Net of semen cost, LNG cost, transport and all other expenditures

1: Assumption: AIT uses one straw per AI and conducts one pregnancy test per AI. Calculated as ratio of pregnant animals to pregnancy tests

The project comprehensively achieved most of the targets set out for AIT training in the Annual Implementation Plan 2012-13 for the period April – June 2013. In particular, the project achieved and exceeded targets on number of AITs trained, monthly income, percentage of AITs providing professional services and percentage of AITs introduced to input suppliers. Trainee AITs also visit open animal market at Shah Pur Kanjrian and Gojra Mandi for pregnancy diagnosis, public dealing and to enhance communication skills.

Three motorbikes distribution ceremonies were held in Hasilpur on 19th April 2013, 30th April 2013 and 30th May, 2013. A total of 157 motorbikes distributed among eligible AITs in these ceremonies.

Component 3: Training and Support for Women Livestock Extension Workers (WLEWs)

The project continued to train WLEWs on a regular basis. During the reporting period, the project successfully trained a total of 754 WLEWs. A batch-wise distribution of WLEWs is given below:

Table 9: Training of WLEWs

Batch	Training Dates	Total	Passed
10	March 13, 2013 - April 11, 2013	262	262
11	April 14, 2013-May 14, 2013	243	241
12	May 16, 2013 - June 17, 2013	251	251
	Quarterly total	756	754

Batch 13 of WLEWs is under training and will sit in the exam in mid-July, 2013. Some of the salient achievements of WLEW training and evaluation are given in the tables below:

Table 10: Training of WLEWs

Sr. No.	Indicators	April-June 2013
1	Beneficiaries targeted during the reporting period	600*
2	Beneficiaries trained during the reporting period	754**
3	Beneficiaries targeted to date***	2,928
4	Beneficiaries trained to date***	3,247

* According to targets revised on October 2012.

** WLEWs that failed the exam went on to become Livestock Business Entrepreneurs (LBE). However, LBEs have been discontinued now.

***Till June, 2013.

The table below shows progress on indicators from the Performance Monitoring Plan (PMP).

Table 11: Performance Indicators of WLEWs

Sr. No.	Indicators	Targets	Apr-June, 2013
1	Average per month income of WLEWs from livestock services relative to the baseline	Income of at least Rs. 3,000 per month (US\$ 32)	Rs. 600 ¹
2	Percentage of farmers using services of WLEWs relative to the baseline	At least 10% farmers using services of WLEWs.	9.84%
3	Number of villages served by project-trained WLEWs	Till June 2013: 1,568	2,153 ²
4	Number of project-trained WLEWs providing services as self-	At least 60% of the trained WLEWs providing	67.22% (2,182 WLEWs)

Sr. No.	Indicators	Targets	Apr-June, 2013
	employed extension workers	livestock services.	
5	Number of WLEWs operating/ managing project-supported milk collection points in project-assisted communities	At least 20 Milk Collection Points	0
6	Number of WLEWs offering feed, nutrients, and other inputs for sale to farmers	60% (till June 2013: 1,756 WLEWs)	67.22% of WLEWs that received kits ³ (1,891 WLEWs)
7	Percentage of project-trained WLEWs introduced to input suppliers	100%	100%
8	Number of WLEWs trained in business practices, book-keeping, and milk collection	April-June 2013=600 ²	754

1: Combined income of both Livestock Health Workers (LHWs) and Livestock Business Entrepreneurs (LBEs).

2: Estimated number of villages. It is estimated that on average one WLEW serves 1.55 villages. Villages served may not be unique.

3: 433 LBEs have not received kits hence have been excluded from this calculation

4 Based on targets revised in October 2012.

It can be deduced from the table above that the project achieved most of the targets set out in the Annual Implementation Plan 2012-13 for the period April –June 2013 for WLEWs. In particular, the project exceeded the expectations in reaching WLEWs and successfully training them in different components including business practices and book-keeping. Consequently, the project was also able to achieve and exceed the given target of WLEWs working as independent entrepreneurs and villages served by these WLEWs. Moreover, the project achieved targets regarding number of project-trained WLEWs providing services as self-employed workers and offering inputs to farmers.

The income of WLEWs is on the lower end. The prime reasons are social barriers to working in the village environment. Of the WLEWs who had completely given up work, 15% women stated that they could not work because of family restrictions and 18.75% stated that they could not work because of societal restrictions. Another 3.1% stopped working after they got married. Several questions regarding the societal barriers and perceptions were asked of the WLEWs. The responses are given in Table 12. The responses suggest that a significant number (36.8%) think that the society does not look at their work favorably. Around 31.6% face mobility restrictions that seriously limit their work environment and hinder their ability to reach a wider clientele. Another problem is that farmers though think of WLEWs as reliable extension workers, exploit them by declining to pay for their services. Approximately 39.1% of WLEWs surveyed responded that farmers often do not pay for their services. This results in losses and demotivation for the extension workers. Another major reason for low profitability is the presence of a trained veterinary officer or assistant in their village. Around 42.5% WLEWs claimed that there is a trained VO or VA in their village.

Table 12: Perception of societal barriers to WLEWs

Social norms	Percentage that agrees
Work is not looked at favorably in the society	36.8%
Restrictions on mobility	31.6%
Restrictions on talking to men	31.6%
Other women in their biradri also work	42.0%
Farmers decline to pay for your services	39.1%
Veterinary officer available in your village	42.5%

As shown in Table 13, Dairy Project has however had a very positive effect on generating self-esteem and confidence from family members. Around 82% of WLEWs think that despite their lower profits, they are now financially independent. Moreover, a majority (88.5%) claim that male members of their family (brothers, husband, and father) support them in their business. This is a very positive indication. More investment in the WLEW component could contribute in breaking some of the stringent social barriers discussed above.

Table 13: Perception of social empowerment

Social empowerment	Percentage that agrees
Farmers consider them as reliable extension worker	87.4%
Consider themselves independent socially and financially	82.2%
Brother/ father and husband cooperate in business	88.5%



Dairy Project's follow up team conducted the individual follow-up of WLEWs and monthly group meetings. In the individual visits, the teams resolved the issues of WLEWs in their community and provided technical guidance, while in the weekly meetings the teams checked the progress of WLEWs and addressed issues related to market linkages and supplies of medicines. Follow-up team

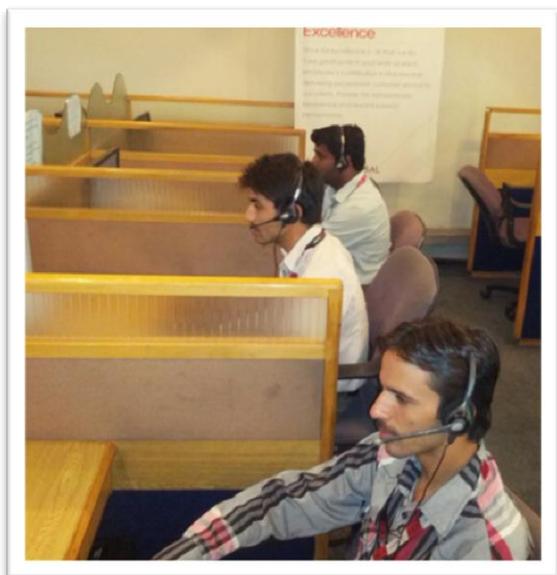
also continued to distribute medicine/vanda kits and mobile phones among previous batches of WLEWs.

Component 4: Communication/ Awareness Campaign and Other Activities

During the reporting period April-June, 2013, the Communications Department at the Dairy Project completed its street theatre shows in Punjabi in the project's targeted areas (Multan, Khanewal and Vehari) to help raise awareness among dairy farming communities on best dairy farming practices. A total number of 10 shows were held, with the first show being rolled out on May 23rd, 2013 in Khanewal, where there were at least 500 farmer attendees. The shows were an outreach effort to sensitize rural dairy farmers and farming communities on the importance of adopting best dairy farm practices for improving livestock productivity. This activity involved a mobile float, jugglers and comedians, who attracted at least 800 attendees every day; a total number of 8952 community members from 389 villages attended the 10 shows which spanned over 12 days.



A performance during the Dairy Project's Street Theatre Shows



Agents answering campaign-specific queries
from dairy community

The Dairy Project also launched its TV/radio campaign on progressive farming practices. This campaign is a series of TV and radio spots in Urdu and regional languages (Punjabi, Seraiki, Sindhi and Pushto) to raise awareness on best dairy farming practices. The first phase of the TV and radio campaign was rolled-out on May 28, 2013 on PTV National, Apna TV, Khyber TV, Waseb, and KTN (7pm to 9pm). The radio channels include Mast FM103 Multan and Faisalabad, Radio Pak MW Multan, Bahawalpur, and Peshawar, FM 92 Okara, FM 95 Toba Tek Singh, FM 105 Shikarpur and Baddin, and FM 93 PBC Khairpur, Larkana, and DI Khan. The campaign highlighted seven significant, modern dairy farming practices, through a character story board including a local dairy farmer Chacha and a young boy, Bala, who essentially educates the farmer on several practices such as breed improvement, feed storage, silage, teat dipping, free access to drinking water for animals, vaccination and deworming, record keeping, and general animal hygiene and shed cleanliness. Adjacent to this activity, the Communications Department setup a response and monitoring unit through which the project has acquired a toll free number '0800-44556'. This activity is being managed by leading international call center The Resource Group (TRG), where the Dairy Project's call agents fluent in all four regional languages are handling campaign-specific queries. As of June 30, around 100 calls have been received from dairy farmers with complete caller information recorded in the CRM. The campaign will continue till July 26, 2013.

The Dairy Project also participated in the International Conference on Institutions, Growth and Development in Pakistan, organized by Government College University (GCU) on May 2nd and 3rd, 2013. The Dairy Project collaborated with GCU to assist in the printing and designing of publication materials, and also led a separate panel discussion dedicated to the role of dairy sector in economic growth. The event press release was covered by multiple newspapers (3 English and 8 Urdu).



The communications department organized the Dairy Project's participation in the Dawn Agri-Expo held at the Lahore Expo Center on April 4-5, 2013. The communications team set up a miniature village chopal set at the project's stall, where skits on best dairy farming practices were performed by the field staff. There was a visible turnout of almost 400 people who visited the Dairy Project's stall during the two-day exhibit. The field staff interacted with the crowd and answered their queries. Project-trained beneficiaries were also present to share their training and post-training experiences with the audience.

The communications team is in the process of finalizing the content, design and layout of its newsletter for the months of April, May and June 2013. Moreover, the Communications Department has finalized a vendor for rolling out its bulk SMS campaign in regional languages to mobilize AITs from District Rahim Yar Khan.

Section 2: Issues, Lessons Learnt and Way Forward

The training courses and communication campaigns have resulted in visible changes in dairy farming practices in project areas however; it will take time for long term changes and benefits to take place. Practices related to breed improvement and disease control measures will take longer to be adapted.

A major challenge that project faced was data collection and analysis. The monitoring and evaluation department faced considerable problems in streamlining the data collection process. There is need to hire more resources and to develop the capacity of existing M&E, data entry and follow up teams in managing data. During the reporting period, M&E department has been reinforced with one Data Management Specialist and one Assistant M&E Coordinator who will oversee the activities of all monitoring and evaluation officers. The M&E manager, Mr. Kashif Saeed left the project towards the end of June 2013 and M&E Coordinator Mr. Hassan Goreja assumed the position of the manager after USAID approval. His team is implementing a detailed plan to revamp and streamline the data management, evaluation and feedback process. As part of this plan, the follow up data collection has been moved to a quarterly and random sample basis. The first such activity was conducted in June and July 2013 and was led by the Data Management Specialist, Mr. Tahir Ali. This allows for better and more reliable data. It also allows the follow up teams conducting monthly follow ups to concentrate on technical and support issues rather than data collection. Moreover, the Data Specialist is overseeing development of a new management information system and will be implemented in early September 2013. This system will enable the data to be entered in real time, be checked for errors and generate certain statistics automatically.

Follow up on trained farmers, AITs and WLEWs will continue in the coming quarter with an emphasis on the adoption of improved farming practices and extension services to the farmers. The project will create market linkages between AITs and WLEWs with input suppliers for the supply of quality semen and veterinary medicines to ensure continuing services. The table below summarizes the issues faced by the field operation team; lesson learning for future while confronting such issues and way forward.

Component	Issues	Lesson learnt	Way forward
WLEW	Community participation was less due to harvesting season	Meeting timings should be changed	Corner meetings were planned in villages to convey project messages to community
	Less teams were available to follow up trained beneficiaries	Hiring of teams	New follow up teams hired to follow up trained beneficiaries in two zones
	Literacy rate was very low in southern area		Project to revise the selection criteria in next working to maximum cater the targeted beneficiaries.

Component	Issues	Lesson learnt	Way forward
	Vanda company (Al-Karam) increased their rate, changed bag packing(from 37kg to 35kg) without informing teams	More market linkages should be introduced to beneficiaries	Team discussed the issue with concerned dealer to resolve the matter, link with more vanda companies and their introductory visit arranged during WLEW classes, develop a module on market linkages and trained trainees how to deal market. Project will place a market link coordinator for each zonal sites to develop the linkages with suppliers.
	Completion of task in Hot weather		Training timing changes from 7am-12pm, Bolans were replaced with APVs so that Master trainer could work in 2nd half to induct trained WLEWs/Farmer Days
	WLEW's participation was less in monthly meetings		Area wise division of group to minimize inter-villages distance and easy approach of WLEW at meeting point
	Incidences of calves death occurred during in WLEWs training areas after the help camps.		Project has paid the compensation charges to the farmers and a mitigation plan a consent form has been designed to be signed by the animal owner before treatment done by project teams/WLEWs.
	Sustainability of WLEW		Committee system was introduced among WLEW group to make them enable to circulate money for sustainable business, Cluster formation ,Some cluster heads were hired by suppliers on monthly salary to ensure timely supplies at their points
Farmers	Less number of farmers were selected from one village	Farmers must be selected as per criteria from one village	One follow up team member assigned to validate farmers to overcome issue, Team focused on previous area selection to cover the gap

Component	Issues	Lesson learnt	Way forward
	Farmers showed interest to get enroll in advance training after 4days training, 1 month and AIT training to make further growth at their dairy herd.	Project has provided opportunities to reappear certain progressive farmers in other types of training with in dairy project. They are given advance knowledge and also provided them with kits accordingly.	Keeping in view the interest shown by the farmer project will make a formal proposal for providing more than one trainings to progressive farmers as regular operations and will present in AIP3 so that project can bring up the progressive farmers and support them to grow their business.
	Farmers are reluctant to spare time span for 30 days on model training farms to get a one month training of commercial farming.		Project will make more flexible training model, primarily based with in villages and training time and contents will also be revised in year three to address this issue.
AITs	It was not manageable for two teams to do AIT's Household after validation		It was planned to select AITs after interview and through stakeholders, Newspaper, TV advertise and sms.
	During meeting with stakeholders of other province, they shared to provide AIT kit without USAID logo keeping in view the security risk		Concern was shared with management and request for waiver to 100 AIT kits without USAID logo.
	Selection of AITs and Performance evaluation survey for Motor bike in other provinces		It is planned to hire some person on special services agreement from other province for fair evaluation of AITs

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 three years (July 2011- July 2014). The project contributes to the USAID 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.

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 project. The project targets to train 9,000 farmers and 100 farm managers. In addition to this, 800 farmers from Khyber Pakhtunkhwa, Sindh and Balochistan 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, farm equipment and shed management. Trainings for farm managers include separate components on basic bookkeeping 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 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 trainings 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, 2,000 young individuals from rural Punjab, and 300 from Khyber Pakhtunkhwa, Sindh and Balochistan 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, 5,000 WLEWs will be trained. 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 bookkeeping and business skills as well as linkages to service (including financial) and input suppliers along the dairy value chain.

Extension worker training 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 for improving livestock productivity in Pakistan. Under this component, TV, radio, and/or print infomercials on subjects such as de-worming, vaccination, mastitis control, breeding, and feeding practices are being developed. The awareness campaign through TV, radio, and/or print media is to be aired in about 2,000 villages in Punjab and other provinces. Farmer days and silage-making days are organized to motivate farmers to adopt improved animal husbandry practices.

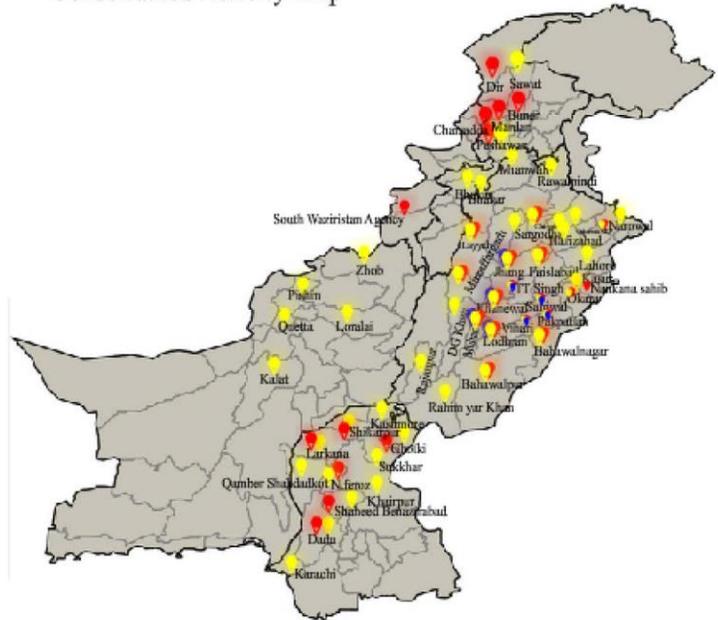
Geographic Focus and Target Groups

Dairy project's current site of locations of project-trained beneficiaries is shown on the maps below:

USAID Dairy Project Intervention Area Consolidated Activity Map

Activity List

	WLEW
	AIT
	FARMER
	PROVINCES
	PUNJAB
	SINDH
	BALUCHISTAN
	KHYBER PAKHTUNKHWA



Annex 2: Key Events Held During the Reporting Period

Sr. No	Date	Event	Location	Media Coverage/Press Release	Remarks
1.	April 4-5, 2012	Dairy Project Exhibits at Dawn Agri Expo	Expo Center, Lahore	Print Ad – Quarter Page Print Ad in Dawn Special Report	The two-day agricultural exhibition and conference organized by the Dawn Media Group was inaugurated by Governor Punjab Makhdoom Ahmed Mehmood and U.S. Ambassador Richard Olson. Mr. Olson attended the Dairy Project stall under the umbrella of U.S. pavilion.
2.	May 2-3, 2013	Dairy Project Launches International Conference with GCU	GCU, Lahore	Press Release – U.S. Committed to Strengthening Pakistan’s Rural and Dairy Economy	Dairy Project collaborated with GCU in terms of assistance for developing conference publications. Also, in a panel discussion, project’s key team including shared its viewpoint with the participants and presented the project as a successful model. Acting Consul General Jeffrey Bakken delivered the closing remarks.
3.	May 28-29, 2013	Graduation/Inaugural Ceremony of 10th and 12th batch of WLEWs	Shah Jahan Hotel, Multan and Joy Land, Vehari Respectively	N/A	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in these
4.	June 29-30, 2013	Graduation/Inaugural Ceremony of 11th and 13th batch of WLEWs	Shah Jahan Hotel, Multan and Joy Land, Vehari Respectively	N/A	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in these

Annex 3: Environmental Compliance Report

EXECUTIVE SUMMARY

The goal of USAID-DRDF Dairy Project is to improve the productivity and efficiency of dairy sector in Pakistan. In order to effectively fulfill this aim, Dairy Project provides three types of trainings which are dairy farmer/farm manager training, Artificial Insemination Technicians (AITs) training, and Women Livestock Extension Workers (WLEWs) trainings. During these trainings, hazardous materials are produced which have to be handled as per health safety and environment principles. Therefore, proper disposal of these materials has to be ensured in order to protect the environment. The training material was developed keeping in view the environmental considerations so that beneficiaries would maintain a standard of health and safety, both at a personal and environmental level. After the training, field visits were planned to monitor the environmental compliance in the Dairy Project.

INTRODUCTION

The goal of USAID-DRDF Dairy Project is to improve the productivity and efficiency of the dairy sector in Pakistan. In order to effectively pursue this aim, 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)

The issues in the Dairy Project's trainings related to environment and health safety are basically in line with adoption of best management practices, health safety measures related to liquid nitrogen gas and organs handling, 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 and so on. An Environmental Mitigation and Monitoring Plan (EMMP) was developed which lists mitigation measures for each type of training. This report presents compliance to these mitigation measures.

REPORT ON COMPLIANCE WITH EMMP

The findings in this report are based on training curriculum review, physical inspection of sites and random visits to classrooms by the Environment Specialist. In order to fulfill requirements under EMMP, various guidelines were developed for safe disposal of animal organs, medical waste and sharps etc. Additional guidelines include health and safety measures to avoid any harm or injury to the trainees. A component-wise description of environmental compliance is given below.

Component 1: Farmer Training

Lesson plan of the Sukheki, Sarsabz, Jahangir and Khanewal farm were checked to find out whether environment-related material had been incorporated. It was revealed that they are covering best

farm management practices like breeding and treatment, calf-rearing, milking, feeding, housing system, agronomy, biogas, heifers and buffalo management and heat spotting. Environment, health and safety content were also taught to the beneficiaries in the 30-day training but four-day training needed some improvement like animal feed storage and biogas plant significance have not been described to the beneficiaries. The dairy farmers and farm managers were informed of the health safety measures like treatment stall or restraining methods for pregnancy examination, vaccination, medication, deworming, and artificial insemination. Teat sanitization, organoleptic and surf test were well described to separate the milk of healthy animals from the milk of infected animals. In addition to this, the candidates are also being trained to practice safety measures (for example, dust mask usage etc.). In farmer training, farmers/farm managers were briefed on how to handle manure and used silage sheets.

Racking is done for animal feed storage and significance of racking is described to the trainees at Sukheki and Sarsabz farm so that mold (one of the causes of mycotoxins production in animal feed) could be avoided due to the moisture from the ground surface and side walls.

Component 2: Artificial Insemination Technicians' Training

All of the Artificial Insemination Technicians (AITs) sites are imparting training on best practices and lesson plan covers best artificial insemination practices i.e. heat spotting. All AI trainees wear Dangri (overalls), gum boots and gloves during practical training on live animals to minimize the chances of disease transfer to human beings. Previously some of the trainees were using the same glove for different animals which was against the health safety principles but now they are well-aware about this and using new glove for each different animal. During table practice, gloves and face masks are worn by the trainees' invariably.

After insemination practice on live animals, animals are washed with 0.5% potassium permanganate from the back at Faisalabad and Burj Attari sites so that animals are avoided from pathogenic bacteria.



Washing with potassium permanganate solution



Usage of gloves, mask and aprons during table practice.



Restraining to control the animals during insemination practice

Crush is used at Burj Attari site to control the animals whereas restraining is done on Faisalabad during live animal practice to prevent the injuries during insemination practice because some abnormal condition can occur and animal may get out of control during insemination practice.

General cleanliness on the farms was also better than previous. Last time, cleanliness at Faisalabad farm was not up to the mark but this time there has been a significant improvement in the cleanliness of the farm. Hands are washed with antibacterial soap after insemination practice.

Sheaths and contaminated polythene gloves are kept covered in dust bins at all three sites till further disposal so that pathogens are not spread in the environment.



Hand washing after insemination



Lid on the waste bin containing gloves

Health safety measures like liquid nitrogen handling, storage of semen and semen straw handling are taught theoretically and are practically demonstrated as well. Contaminated gloves, sheaths and straws are disposed off properly in limed pit at Burj Attari site and Faisalabad sites and steps involved for the disposal are:



Placed used gloves in limed pit

Organs are also disposed off properly at Faisalabad and Burj Attari sites. Organs are placed in limed pit and then liming is again done after soil covering. Due to the unavailability of land the Rawalpindi site is not disposing off in described manner. The waste material is taken away from the residential area and then dumped openly near river Sawan.



Disposal of organs in limed pit

Component 3: Women Livestock Extension Worker (WLEW) Training

WLEW trainings takes place at designated training centers in two districts namely, Multan and Vehari. Best basic livestock extension practices are taught to the WLEWs and health safety measures like handling of medicines and syringes have been incorporated in training content. Medicines are protected from the sunlight during outdoor sessions by use of kit bag thereby complying with the product specifications. Moreover, expiry date is checked before use of medicines at both sites which eliminates the chances of expired medicine usage.

Recapping needle enhances the chances of needle prick injuries as well as zoonotic diseases occurring as a result. Previously, some of the WLEW's were touching the needle and trying to bend the needle with their hands but this time they were well aware and avoiding this practice. Hands are washed with soap after treating animal or being in contact with animal. Moreover, restraining methods have also been taught to the WLEW's so that they could prevent any possible injury from the animals. Needle cutters were available on both sites for immediate disposal of needles after injection so that chances of needle prick injuries are minimized. Syringes are disposed off into the land along with their encapsulation, hence complying with the guidelines. Undesirable practice which was observed last time was the use of used syringes for different animals but this has been stopped and amount of syringes have been increased in master trainer's kit.



Disposal of syringes along with encapsulation.

Empty medicine bottles are also disposed off into the land after usage.



Disposal of medicine bottles into the land

Summary of Environmental Compliance:

Dairy Farmer/Farmer Manager Training	
Mitigation Measures	Compliance
Farmers will be trained on best dairy farm management practices and related environment practices including health safety measures. Training modules will contain environment considerations and health safety related content.	Best farm management practices and related environment practices are part of the training curricula. Breeding & treatment, calf rearing, milking, feeding, housing system, agronomy, biogas, Heifers and buffalo management and heat spotting are the best farm management practices which are taught to the dairy farmers/ farm managers. Health safety content covering topics such as bio security, prevention of disease at the farm, farm entry protocols, animal feeding & storage, milking hygiene, milk storage, silage machine safety, prevention and control by use of crush and restraining methods have been incorporated in the training.
All materials used in the training will be procured according to the relevant environmental regulations.	Farmers are given lectures about best dairy farm practices and they observe adoption of such practices at the model training farms. Therefore, no material is used for training purpose which poses environmental threats Silage machines are used for silage demonstrations after the training at selected villages. These machines have been procured from a well-reputed vendor and manual instructions are followed during operation of the machine.
Relevant product specifications and guidelines for handling, transportation, storage and disposal at the end of useful life will be adhered to.	Only experts are permitted to run silage machine. Safety guard is in place whenever silage machine is in operation and no one is allowed to remove it. Person working on silage machine wears secure clothing (Dangri) and safety boots. Medicines are kept away from direct sunlight and placed at dry place out of children's' reach. During silage-making show face mask is not used which makes the person vulnerable to the lung diseases. Zonal manager have been asked to mitigate this issue and provide them with a mask during silage-making shows.
All waste will be properly disposed off.	There is no waste which is produced as a result of

	training.
All kits to be distributed will also be procured according to relevant environmental regulations.	All of the medicines are approved from USAID on the basis of their active ingredients. Teat solution and other materials are procured from a reputable vendor. Proper handling of medicines and syringes has been taught to the trainees.
During the silage-making shows, farmers will be briefed on environmental considerations.	Safe and proper usage of silage machines was communicated to the master trainers. Person working on silage machine was wearing proper clothing (Dangri) and safety shoes. Dust masks are still missing on during silage making shows which make them vulnerable to lung diseases so issue has been discussed with General Manager Operations.
Artificial Insemination Technicians Training	
Mitigation Measures	Compliance
AITs will be trained on best AI practices and related environment practices including health safety measures like storage of semen, handling liquid nitrogen gas and semen straws. Training modules will contain environment and health safety related content.	Best AI practices are part of the lesson plan and AI technicians are taught best practices through practical demonstrations as well as theoretical knowledge. Storage of Semen: Storage of semen has been explained to the AI technicians that semen is stored in liquid nitrogen containers and semen is not exposed to the atmosphere for more than three seconds so that semen cells do not get damaged. Handling of Liquid Nitrogen: Safety guidelines with respect to the handling of liquid nitrogen have been given at all three sites. Previously, instructions were not given to beneficiaries at the Faisalabad site, but now they are being instructed. Semen Straw: AI technicians at all three sites were given instructions on proper Handling of semen straw. The straw should be handled from the end where it is sealed with cotton with forceps rather than from middle directly by hand it will suddenly change the temperature of semen of that area and may lead to spermatic death due to direct contact to straw. Health Safety Content: Health safety content has been prepared and communicated to the training sites with respect to

	liquid nitrogen and organ handling. Material for proper handling, transportation, storage and disposal of organs and liquid nitrogen have been prepared and shared with field staff. These safety measures are being followed at AI sites.
All waste will be properly disposed off.	All materials (straws and sheaths) are disposed in an appropriate manner at training sites Burj Atari and Faisalabad. However, Rawalpindi training site, due to unavailability of land, are dumping it away from residential area to minimize the adverse impact.
Relevant product specifications and guidelines for handling, transportation, storage and disposal at the end of useful life will be adhered to.	<p>Guidelines for organ and liquid nitrogen handling, transportation, storage and disposal have been communicated to the trainers who are briefing AIT's about this.</p> <p>Organs are transported in a closed container and stored at temperature less than 50C so that bacterial growth can be controlled. Disposal of these organs is also taking place in an appropriate manner at two of the sites i.e. Faisalabad and Burj Attari.</p> <p>As far liquid nitrogen is concerned, handling is done with care so that cold burns could be avoided; safety goggles and cryogenic gloves have been recommended for liquid nitrogen handling.</p> <p>Transportation of liquid nitrogen is done in such a way that no one is sitting in the same container in which liquid nitrogen cylinders are transported so that asphyxia and cold burns can be avoided.</p> <p>Storage is done at well-ventilated areas to avoid asphyxia and cylinders are prevented from getting damaged.</p>
Other waste generated during the training such as organs used in the training will also be properly disposed off.	Organs are disposed off in an environmentally safe manner at training sites Burj Atari and Faisalabad. However, Rawalpindi training site is throwing it in a deep pit near River Swan due to unavailability of land. But the place where these organs are thrown is selected away from the residential area to minimize the adverse environmental effects of these organs.
All kits to be distributed will also be procured according to relevant environment regulations.	Companies were checked on the basis of their reputability, previous projects carried out and experience in the business. Their reputability is

	good enough to continue working with them.
Women Livestock Extension Worker Trainings	
Mitigation Measures	Compliance
WLEWs will be trained on best practices related to basic livestock extension services and related environment practices including health safety measures like handling of medicine and syringes. Training modules will contain environment and health safety related content.	<p>Best practices of basic livestock extension services like Deworming, vaccination, temperature taking, mastitis control are incorporated in the training module and part of lecture plan as well.</p> <p>Handling of Medicine: Field visits were made to check compliance with these guidelines given and the observations are as follows. WLEW training sites were in compliance with the guidelines and they were keeping medicines at dry, safe place and protecting them from direct exposure to sun light during outdoor sessions.</p> <p>Usage of Syringes: Guidelines for the proper handling of syringes have been prepared and communicated to master trainers. Previously WLEW sites were reusing disposable syringes in different animals which can transmit pathogens from one infected animal to the others but now this undesirable activity has been stopped and quantity of syringes in master trainers kits have been increased as per requirement. Restraining methods are followed at both sites while treating large animal.</p> <p>Health Safety Material: Training material with respect to health safety measures covering the topics; proper handling of medicines and syringes, their disposal, restraining and Vanda storage have been described well to beneficiaries about these safety measures during their class sessions.</p>
All materials used in the training will be procured according to the relevant environmental regulations.	All of the medicines used are approved from USAID on the basis of their active ingredients so complying with regulation.
Relevant product specifications and guidelines for handling, transportation, storage and disposal at the end of useful life will be adhered to.	Both sites are in compliance with product specification and following the instruction given by the manufacturers. Needle cutter is used to break the needle immediately after usage. Medicines are kept at safe, dry place out of reach of children. Proper disposal methods are followed to dispose off syringes and medicines.

All waste will be properly disposed off.	Syringes are disposed off into the land along with encapsulation on both WLEW training sites i.e. Multan and Vehari, hence complying the standards. Empty medicine bottles are also dumped into the land as per instruction on both WLEW sites.
All kits to be distributed will also be procured according to relevant environment regulations.	Kits mainly consist of medicines and all of these medicines are approved from USAID.

WAY-FORWARD

By and large, Dairy Project is observing compliance with EMMP due to which, the project has minimal environmental adverse impact. However, there were instances, where health and safety guideline are not being observed in their full capacity. In such cases, necessary directions have been given to Operations Department to resolve the issues. Issues raised in the last report have been redressed and there has been a remarkable change in the behavior of master trainers towards environment. Dairy project is now looking towards the conversion of non-biodegradable polythene gloves into biodegradable which would promote sustainable development in the context of dairy project.



SUCCESS STORY

Boosting rural entrepreneurship

USAID trains unemployed villagers to become Artificial Insemination Technicians (AITs) for dairy breed improvement and kick start their businesses in Punjab



Photo by USAID-DRDF Dairy Project

"I participated in the USAID-DRDF Dairy Project's AIT training course and I am now able to help improve cow/buffalo breeds in my. This training course has enabled me to perform pregnancy tests and artificial insemination, for breed improvement, which leads to better incomes for me and my family and high profitability for dairy farmers. Thank you Dairy Project!"

Muhammad Waqar Anwar, Dairy Project trained AIT from Chak no. 314 GB, district Toba Tek Singh.

Young village-based boy Muhammad Waqar Anwar hails from Chak no. 314 GB in district Toba Tek Singh where he lives with a large family of twelve. He belongs to a farming family which has been struggling to make ends meet for a large clan, and his father's sole income was never sufficed. Waqar began a diploma in mechanical engineering but could not complete it due to financial constraints. "My life was at a critical junction, and then my father who is a trained Dairy Project farmer, introduced me to the project's team," he recalls.

"My father encouraged me to become a trained Artificial Insemination Technician (AIT), and somehow I was also excited for this new opportunity that could shape up my future. I was apprehensive too!" Waqar says. At only 19 years of age, Waqar planned to support his father financially and this could only be a possibility if he acquired a skill to earn a regular income. His days of unemployment were drawing to an end.

"I was selected for the AIT training, after which I passed the exam and Dairy Project provided me with a kit, which included nitrogen gas for safe storage of semen and other equipment," Waqar says. During an induction meeting in his district, farmers were introduced to my work and the breeding services I would be able to provide to them. "In April 2013, I began work and since then, have attended 380 artificial insemination cases. I have earned a total income of PKR 9,340," he says. Also, Waqar has conducted an average of 60 pregnancy tests in a month.

"Through artificial insemination services in my village, farmers like my father are now hugely benefitting and with time, there will be better dairy animal breeds. Milk production will increase and so will incomes," he confirms. Waqar says he is indebted to the Dairy Project for providing him a specialist skill.

The USAID-DRDF Dairy Project aims to improve the lives and incomes of many other young unemployed individuals with the target of providing AI training and support to 2000 individuals and encourage them to become entrepreneurs working towards breed improvement in Pakistan. With better breeds, Pakistan's dairy industry will see a face-lift through better milk yield and better incomes.



USAID
FROM THE AMERICAN PEOPLE

PAKISTAN

SUCCESS STORY

Road to recovery

USAID pulls rural woman out of poverty through provision of dairy livestock extension skills in her village



Photo by USAID-DRDF Dairy Project

“I participated in the USAID-DRDF Dairy Project training course and I am now able to provide animal healthcare in my village. I have been involved in facilitating farmers with timely vaccinations, a best dairy farm practice and a total number of 886 animal cases have been attended by me. I was also provided with a medical kit upon completion of the course and was able to become a breadwinner for my struggling family.”

Saima Bibi, Dairy Project trained Women Livestock Extension Worker (WLEW) from village Zafar Colony, Tehsil Burewala, District Vehari, Punjab.

Saima Bibi, a resident of the tehsil Burewala, district Vehari, Punjab saw her fate sealed when her husband, the sole breadwinner for her clan, unexpectedly fell ill at the hands of jaundice and became bedridden. “My husband Zafar Iqbal was initially involved with the sale and purchase of animals, and his illness did not allow him to visit the markets for business. It was a tough time for all of us – a family of seven,” she explains. With little hope for the future, Saima and her family struggled to meet everyone’s basic food and clothing needs as there was no source of income. “But then the USAID-DRDF Dairy Project team turned up, and we were shown a new road to recovery.”

The United States Agency for International Development (USAID) and Dairy and Rural Development Foundation (DRDF) through their Dairy Project are providing trainings to women from Punjab’s rural communities to become livestock extension workers. The Dairy Project provides a basic four-week long course, and the curriculum and graduation certificates are provided in joint collaboration with the University of Veterinary and Animal Sciences (UVAS).

“Prior to the trainings, there was no source of income to support basic necessities for my children and I felt helpless. I was forced to withdraw my children from school as I could not afford the fee,” Saima says. Thereafter, the Dairy Project team selected and trained Saima, and introduced her to the village through an induction meeting in April 2013. .

The Dairy Project team trained Saima on the techniques of animal disease prevention and basic livestock management. In May 2013, she was awarded a medical support kit and began her career as a skilled Women Livestock Extension Worker (WLEW). Between May and July 2013, Saima has earned PKR 8,829 by attending a total of 886 animals in her village. She has looked after vaccination and deworming cases primarily. “I am a trusted WLEW among the farmers,” she confirms.

The USAID-DRDF Dairy Project team aims to continue providing support and guidance for women to be able to provide livestock extension support, and equip them with the knowledge, skills and tools to provide much-needed animal health care in their villages. It is expected that as a result of such activities, a total of 1500 villages will have improved animal health care services.



SUCCESS STORY

Dairy farmer learns best practices

USAID trains dairy farmer to adopt best farming practices for sustainable increase in livestock productivity.



Photo by USAID-DRDF Dairy Project

"I participated in the USAID-DRDF Dairy Project's two-day and four-day farmer trainings, and I am now able to expand my dairy farm business on modern lines. I hope to establish a commercial farm one day. Thank you Dairy Project!"

Muhammad Ajmal, Dairy Project trained farmer from village Chathwala, district Multan

Profitable dairy farming can be a tough task for many, given the financial constraints and lack of general expertise. Muhammad Ajmal, a traditional dairy farmer based in village Chathawala, district Multan in Punjab faced various hardships in his dairy farming business, until he participated in the USAID-DRDF Dairy Project's two-day and four-day farmer trainings.

U.S. Agency for International Development (USAID) and Dairy and Rural Development Foundation (DRDF) through their Dairy Project are providing trainings and support kits to dairy farmers to foster sustainable increase in livestock productivity through adoption of best farming practices.

"Prior to the Dairy Project's trainings, I was not aware of contemporary dairy farming practices and their benefit. I really wanted to grow the scale of my dairy business, but I had no idea how to do it with a modern perspective," Ajmal explains. Ajmal owned eight milking animals, and his average milk production at the farm was seven liters per day. Opportunity then knocked his door when he was introduced to the USAID Dairy Project training on best farm practices, through the project's social mobilizer in his village. He quickly realized the importance of this training and after consultation with his wife decided to apply for the training. He was selected for the training for two-day training in April 2012.

"Having successfully completed the training, I obtained an initial support kit containing dewormer, farmer notebook and antiseptic liquid for teat dipping. During the two-day training, I was introduced to vaccination, deworming, feeding vanda and silage, and free access to water for animals," he explains. Ajmal was very impressed by the training on the model farm and fortunately, was selected for four-day training in July 2012. Through this training, Ajmal received another support kit from the Dairy Project. "I also learnt about the construction of model animal shed," he adds.

Ajmal, like many other Dairy Project-trained farmers have witnessed an increase in the milk production at their farms. "The average milk production at my farm is now 7.5 liters per day, from four milking animals and he has seen an increase of PR 40,000 in his annual dairy income," he says. Additionally, Ajmal has invested to make a model shed for his animals at the farm and is preparing silage to feed his animals. "I am very thankful to the Dairy Project."

With assistance and guidance from USAID-DRDF Dairy Project, Ajmal has emerged as a strong dairy farmer, who now focuses on sustainable increase in farm productivity and incomes.

Annex 4: Performance Evaluation Sampling Strategy

Primary objective of the evaluation activity conducted in July 2013 is to get a reliable indicator of the project's performance in three components vis-à-vis farmer, AIT and WLEW training. Given logistical constraints, it was not possible to cover all districts from where the dairy project has trained beneficiaries. Therefore, four districts namely Multan, Vehari, Toba Tek Singh and Sahiwal have been selected in the sample for WLEWs and farmers. These districts cover more than 70% of the total trained beneficiary population for both components. The AIT component is more spread out, hence Khanewal, Bahawalpur, Bahawalnagar and Muzaffargarh were also covered for AITs. The evaluation sampling was also handicapped by the unavailability of baseline data, especially for the farmer component. Hence, an evaluation design was adopted that allowed us to get both baseline and endline values. Detailed evaluation designs of each component are given below.

Farmer

Farmers' performance changes after the training is imparted to them. This change is more pronounced in the long-term than in the short-term. In order to evaluate performance of the farmers, a new strategy has been designed keeping in view time-frame differences and data limitations.

For performance evaluation, two groups have been selected after they have received training. Group A consisted of beneficiaries trained in April 2013. Group B constituted of beneficiaries trained in March and April 2012. However, information regarding indicators in April 2013 and June 2013 was obtained in July 2013 on recall basis for both groups. The following strategy was proposed to evaluate performance:

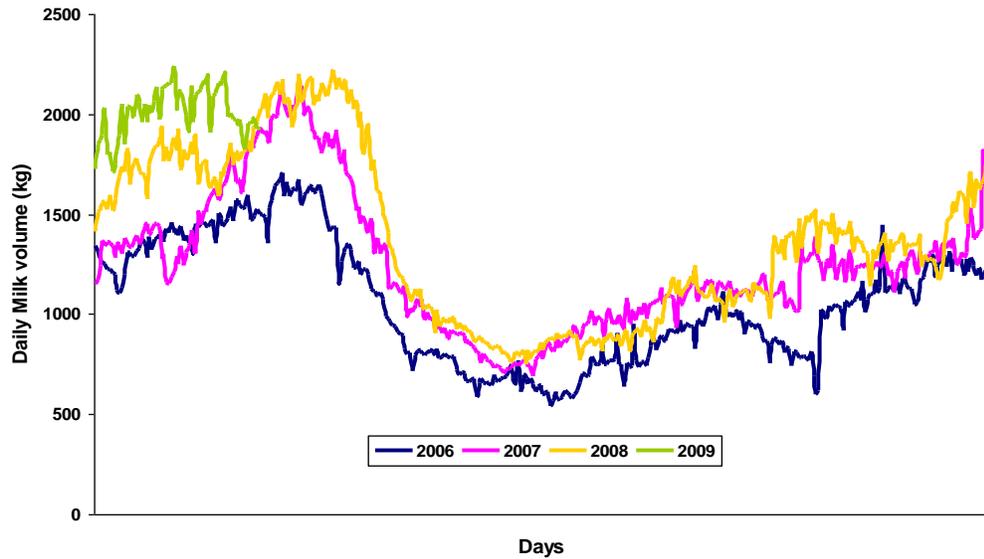
In the short run, performance indicators of farmers of Group A in April 2013 has been compared to June 2013 to see the improvement in production in short run. Duration of 3 months allow for the performance evaluation in the short term. For long term evaluation, we assume that Group A and Group B are homogeneous. Performance indicators are compared across these two groups for month of June 2013 to see the change in performance over time as we are comparing two groups, one trained in Apr 2012 and other in Apr 2013.

Seasonal Adjustment Factor for Milk Production

Milk production observes flesh and lean seasons. Production peaks in March while it is at its lowest in June. Pakistan Dairy Development Company (PDDC) estimates that in mid-June the raw milk production is just 55% of the peak production season¹. Hence, it is necessary to adjust the milk production for seasonality to compare three month performance of farmers. An adjustment factor is calculated on the bases of secondary milk purchase data of Nestle, Pakistan for year 2006 to 2009. The adjustment factor is 0.65. Below graph shows trends in milk purchase on the bases of daily data collected.

¹ "The White Revolution "Dhoodh Darya": White Paper on Pakistan's Dairy Sector", Pakistan Dairy Development Company, 2006.

Milk Purchase Daily Quantity Trend



Source: “Saaf Doodh” Nestle Presentation. 2009

Calculation of Adjustment Factor

Year	April (milk volume)	June (milk volume)	Ratio of June to Apr
2006	900	600	0.67
2007	1,100	750	0.68
2008	1,250	750	0.60
Average			0.65

AIT

In order to evaluate the performance of the AIT, a total of 10 percent sample was drawn from the population of AITs trained till March 2013. AITs trained in April-June 2013 period were not selected as they get kits 8 days after their training and it takes them time to start their business.

WLEW

A sample of 10 percent WLEWs trained till March 2013 was selected for evaluation of performance after training. WLEWs trained in April-June 2013 period were not selected as they get kits 8 days after their training and it takes them time to start their business.

Annex-5: Radio/TV Coverage

Sr#	Channel Name	Station	Coverage Area
1	FM 105	Badin	Badin city, Sijawal, Golarchi, Talhar, Nino, Tando Bago, Serani, Kadhan, Tarai, Pingrio, Rajokhanani, Piru Lashari, Chorewah, Khari, Lowari, Kario
		Shikarpur	Shikarpur city, Ghari Yassen, Sultankot, Lukhy, Jahaniyan, Thul, Chak, Madeji, Rustam, Wazirabad, Sonwah, Nim, Jagan, Khanpur, Pir Bux Shujrah, Bagirji, Rahimabad
2	FM 95 Toba Tek Singh	Toba Tek Singh	Toba Tek Singh, Shorkot, Rajana, Pirmahal, Kamalia, Gojra, Jhang, Samundri, Pansera, Sahiwal, Chichawatni, Mamonkanj n, Mian Chanun, Abdul Hakeem, Mureed Wala, Khidar Wala, Sindhelian Wali
3	FM 94.6	Peshawar	Mardan, Kohat, Landi Kotal, Kotak, Cherat, Charsadda, Nowshera, Dhok, Shahkot, Khyber Pass, Matanni, Chambai & Fata
4	FM 103	Faisalabad	Faisalabad (City), Faisalabad (Sadar), Chak Jhumra, Jaranwala, Samundri, Tandlianwala, Gojra, Chiniot, Sarghoda, Khurjanwala, Satiana, Shah Kot
		Multan	Muzzafar Garh, Jhan More, Mehmood Kot, Sinanwan, Kot Adu, Qadir Pur Ran, Nawab Pur, Kabir Wala, Fazal Shah, Khanewal, Mianchannu, Makhdom Rashed, Tibba Sultan Pur, Jahania, Mitru, Melsi, Burewala, Vehari, Kohar, Shujahabad, Raja Ram, Hafizabad, Shehar Sultan, Jalal Pur, Khan Bela
5	FM 93 D.I. Khan	D.I. Khan	D.I. KHAN: Dariyakhana, Bhakkar, Kalurkot, Kanak, Kafir Kot, Mianwali, South Waziristan, Kohat, North Waziristan.
6	FM 93 Khairpur	Khairpur	KHAIRPUR: Sukkur, Rohri, Nawabshah, Ghotki, Kashmir, Jacobabad, Naserabad, Dera Murad Jamali, Rahim Yar Khan, Mirpur Mathelo, Sadiqabad, Punno Aqil, Nausharo Feroze
7	FM 93 Larkana	Larkana	LARKANA: Larkana, Dadu, Shikarpur, Jacobabad, Kandhkot, Kashmir, Khairpur, Ratto Dero, Moen-Jo-Daro, Shahdadkot
8	FM 92 Aap Ki Awaz	Okara	Okara City, Okara Cant, Jundharka, Lesharian, Joyaa, Kohla morr, Jobka, Shaho Sharif, Sutgra, Deepalpur, Baseer Pur, Bahawal Das, Bakho Shah, Khair Pur, Shuban Shah, Methaki, Sahowall, Shamdin, Majeek
9	FM 92 Khairpur	Khairpur	Sukkar, Larkana, Shikarpur, Kotdigi, Gumbat, Ranipur, Peer Jo Goth, Their, Kumb, Rohri, Panoaqil, Ghari Yaseen, Lakhi Ghulam Shah, Naudero, Ratodero, Madeji, Dokri, National Highway
10	Radio Pakistan Bahawalpur	Bahawalpur	BAHAWALPUR: Lodhran, Yazman, Ahmedpur, Melsi Samasata, Duniyapur, Shujaabad, Hasilpur, Jalalpur, Ahmed pur East, Liaquatpue, Fort Abbas, Alipur, Dera Wahport, Khanpur, Cholistan, Bahawalnagar, Qaimpur

11	Radio Pakistan Multan	Multan	MULTAN:Muzaffargarh,Lodhran,D.GKhan,Kamalia, Khanewal,Vehari,Bahawalngar,Layyah,Khanpur, Rahimyar Khan,Rangpur.
12	Radio Pakistan k2Peshawar	Peshawar	PESHAWAR:Sawat,Sawabi,Nowshera,Karak, Bannu,Parachinar,Mansehra,Malakand,Mangora, Charsadah,Landi Kotal,Mianwali,Khoshab,Lucky Marwat,Gojaran,Hasanabdal,Dir,Jehangira, Kamra,FATA.
13	Apna TV		Attock, Bhakkar, Bahawal Nagar, Bahawalpur, Chakwal, D.G. Khan, Faisalabad, Gujranwala,Gujrat, Hafizabad, Islamabad, Jhang, Jhelum, Kasur, Khanewal, Khushab, Lahore, Layyah, Lodhran, M.B. Din, Multan, Muzzafar Gargh, Nankana Sahib, Narowal, Okara, Pak Patan, Rahim Yar Khan, Rajan Pur, Rawalpindi,Sahiwal, Sargodha, Sheikhupura, Sialkot, Toba Tek Singh, Vehari
14	AVT Khyber TV	Peshawar	Peshawar City, Peshawar Cantt., Hayatabad, University campus, University town
		Nowshera	Nowshera complete + Risalpur
		Mardan	Mardan City, Mardan Cantt., Shaikh maltoon town
		Swat	Swat City
		Kohat	Kohat City, Kohat Cantt.
		D.I. Khan	D I Khan City, D I Khan Cantt.
		Banuu	Banuu City, Banuu Cantt.
15	KTN		-
16	PTV National		Panjab + Federal Areas, Sindh, Khyber Pakhtoonkha+ FATA, Balochistan, Northern Areas, AJK
17	Waseb TV		Rahim Yar Khan, Lodhran, Muzaffargarh, Multan, Bahawalnagar, Bahawalpur, Vehari, Khanewal, Dera Ghazi Khan, Layyah, Rajanpur