

RALF 01 Six-Monthly Project Reports

Submitted to DFID

**Compilation of Full Project Reports as
Received by ICARDA**

Reporting Period: Feb. 1- July 31, 2006

Project 01-03:

Village Decision Driven Research Project

Alingar District, Laghman Province

Date: August 18, 2006

RALF Project Number: 01-03

Project Title: Village Decision Driven Research Project

Project Leader: Chris Pannkuk

Organisation: Washington State University

Collaborators:

1. Danish Committee for Aid to Afghan Refugees
2. Ministry of Agriculture and Irrigation

Start Date: June 1, 2004

End Date: January 31, 2007

Budget: \$399,943

Management Issues

Security continues to be a problem in Laghman. We had plans to travel to Afghanistan in January and February but had to cancel because of security issues. DACAAR expat staff had to evacuate Afghanistan due to riots over the Danish cartoon incident in March. Taliban activity in Laghman province reduced the activities in the villages. However, both in April and June we were able to continue with the follow up activities both in the villages and at the MAAH.

The MAAH has been participating with all aspects of the project in Laghman. Field visits, survey development and activity development have all been carried out by DACAAR with representatives from the MAAH. The Laghman office has not had many activities until recently when the new head, Mr. Safi, came. They are now engaged in many activities including the restoration of the local demonstration and production sites, fish farming activities with US PRTs and a forestry rehabilitation of gardens close to the city of Mehterlam. Because Mr. Safi is new and unaware of our activities we spent many days showing him DACAAR activities and discussing how they might be involved. Mr. Safi made it clear that he needed support in the form of salary for his staff and I explained that we had funds to assist his efforts in areas of research and extension on the activities described in our survey results. To that end we left with him a request for application (attachment 1) to submit to us. When we did not hear from him after two months and repeated efforts to contact him. Therefore, we requested that some of the funds be expended by DACAAR to implement activities in the three villages. ICARDA agreed that this would be appropriate.

Research Process

Priorities for the "Pilot Projects" were developed after meeting with individual village organizations (VOs) from each village. These results were then brought to a meeting of all leaders from the VOs to finalize a priority list for the project. We then went to each VO and discussed the results of this meeting to reaffirm that these activities were in agreement with them. This Delphi approach ensures that all stakeholders have adequate time and opportunity to voice their opinion and suggest any change. The priorities agreed upon by all villages are:

**Activity Descriptions RALF 01-03
Compiled Prioritized List
from
Sangar, Salab and Mango
April 2, 2006**

Livestock Management

1. Cow calf exchange
2. Rangeland Improvement
3. Forage Production
4. Meat and milk production

Forest Management

1. Nursery and expansion of improved varieties
2. Forest production
3. Walnut and almond production
4. Sustainable harvesting

Women's Resource Centers – to produce and market products

Sustainable Farm Improvement

1. Improved Varieties (wheat, maize, beans and vegetables)

2. Management technique
3. Cropping System livestock and cropping systems

Poultry and Egg Production and Marketing

1. *Improved varieties*
2. Raising techniques

Fruit and Vegetable Processing – tomatoes, citrus, plum

Fisheries

1. *Production*
2. Processing of fish and fish production

Because the project cannot afford to develop all these activities into pilot projects we had to determine at each village what would be the most appropriate approach. After again meeting with each VO it was agreed to take an integrated approach to the priority list and involve as many aspects of their list as possible. It was agreed that an animal husbandry project would involve the most families in need, women resource centers to produce cheese and advance crop production for animal feed.

Revised Animal Husbandry activity

6 July, 2005

Ms. Marry Underwood DFID consultant for evaluation of RALF projects along with ICARDA team, DACAAR staff and Ms. Vicky Getz from WSU visited the Salab and Sangar on 20 June, 2006. Ms. Underwood and Ms. Vicky Getz met with the members of newly created Associations in Salab and Sanagar and discussed different issues regarding RALF 1. Based on the comments of Ms. Underwood and Ms. Vicky Getz regarding RALF, the implementation of proposed animal husbandry activities were discussed in detail by DACAAR staff both at field level (Gul Makhan and Kochi Khan) and in Kabul office (Benny Werge, Muhammad Asif, Anna Minkiewicz, Shakilla Asad and Jahangir Khan). DACAAR staff agreed on that some of the proposed activities needed modifications and revision of proposed budget. Ms. Anna, RDP advisor also sent written comments to WSU on the proposed activities in early July but no response has been received yet.

Jahangir Khan, NRM Coordinator visited Sangar and Salab from 15-18 July and discussed proposed activities with Association members and DACAAR field staff. Basic data about association members to create a livelihood profile of association was collected during the field visit. Moreover, the possibilities of implementing the proposed activities were researched in detail.

Association development:

Associations have been established in both Sanagar and Salab on 13 June, 2006 and 02 June, 2006 respectively. Each association has representatives from five adjacent villages. Following table shows details of association.

Sangar Association			Salab Association		
Represented villages	Total number of Households	No of people from each village	Representated villages	Total number of Households	No of people from each village
Kuz Miankhel	21	7	Sahibzadgan	20	4
Bar Miankhel	50	6	Toor Khundi	22	4
Wacha Qila	22	12	Salab-e-ulia	15	4
Masoom Qila	21	8	Ziarat	5	4
Azam Qila	20	5	Nanaga	11	5
Total	134	38		73	21

The membership to each association is open to anyone from the five represented villages in association. The entry fee to Association is 50 and 20 Afs for Sangar and Salab association respectively and a monthly fee of 10 Afs for both associations. Each association has elected a management committee which comprises of Chairman, deputy chairman, record keeper and treasurer. Both associations have monthly meeting attended by DACAAR staff in which different issues are discussed.

As both association are in infancy stage, so DACAAR staff is trying its best to provide all its support for strengthening the associations. For this purpose DACAAR has arranged vocational training for six people nominated by Association from each Salab and Sanagar area.

Cow-calf exchange

The cow calf exchange has been administered through Association under the supervision of DACAAR. The Association members identified the potential milking cows for sale and after checking the cows by DACAAR animal Husbandry officer, final purchase was made. All the cows are with calves and the Association in Sangar decided to distribute the cows among association members by putting all the names of the association members in a hat and picking up one random name. The distribution of cows among the association members in Salab is not very clear as what criteria was followed to distribute the cows. Five cows have been distributed in both Sangar and Salab.

During follow up visit individual interviews were made with all households that have received cows and all of them except 2 are extremely needy and poor. The people who have received the cows will return the original price of the cow to association on monthly basis in 36 installments. A formal agreement has been made between DACAAR and each association and then between Association and each household who have received the cows for the repayment of the cow price. Some of the people who received the cows are planning to sell the calf when it is almost one year old to pay most of the money in one installment. When the Association receives the full amount of money after three year or maybe earlier, another cow will be bought from the same money and will be given to other needy households in the area.

The traditional cow calf exchange system "*Pandawachi*" is very strong in both Salab and Sangar. The Association members in Sangar reported that more than 30 % of the households in the area are involved in this system and more than 20% in Salab. The system involves that a household who cannot afford to keep cow due to some reason normally give a 2 year old cow to a household who can take care of the calf till its maturity. The households who receives the cow in *Pandawachi*, takes care of it until the first child of the cow is born and weaned. After weaning, the calf is retained by the one who received the cow in *Pandawachi* and the cow is returned to owner. The milk is used by household which receives cow in *Pandawachi*. The people in both areas are of the view that this system benefits both owner and the one who receives cow in *Pandawachi*. The owner in return of a young cow receives a full grown cow and the one who received the cow as *Pandawachi*, receives a calf after 2-3 years and also benefit from milk during the year.

Following the system of "*Pandawachi*", SERVE NGO has distributed 2 year old cows in all the five villages included in Sangar Association through the consensus of the association members. The criterion for distribution was that one cow was distributed per 50 families in each village. Three families each in Kuz Miankhel, Bar Miankhel, Azam Qila and Masoom Qila received one cow while seven families received cows in Wacha Qila.

DACAAR is in the process of establishing association in Mango area as it was not possible earlier due to conflicts among different villages. As Mango was one of the research sites for RALF-1, it is recommended that the cows should also be distributed to the association when it is established. For the purchase of cows an adjustment into already proposed budget by WSU is made.

DACAAR could not stick to the criteria fixed by WSU for cow calf exchange, possibly due to lack of communication. Moreover, discussion with association members revealed that it was not possible to pick a person from each village based on poverty criteria as all the people from the village are poor and needy. Moreover, DACAAR staff in future will ensure a proper mechanism for distribution of cows.

Artificial insemination:

The association members reported 104 and 164 cows in Sanagar and Salab respectively. In my meeting with Mr. Asif it was decided that DACAAR Animal Husbandry Officer, will go to Alingar to devise a strategy for artificial insemination. We agreed that DACAAR should coordinate artificial insemination through MADERA which has trained staff with clinics in the area. Mr. Asif in his earlier meeting with MADERA in Jalalabad discussed the activity and the MADERA informed that they have already trained a person in Alingar in artificial insemination. MADERA suggested that the equipments for Artificial Insemination which approximately cost 57,000 AFS should be provided through RALF 1.

According to my observation artificial insemination will not be feasible in Sangar as most of their households take their cows to summer pasture from April-September which is 3-4 hours from the represented villages in Association. During discussion with DACAAR Animal Husbandry Officer after the visit he proposed that AI is possible in Sangar before the cows move to the pastures.

The Animal Husbandry technician for Alingar has already been hired. The role of the animal husbandry technician need to be further clarified. My suggestion will be that his main role will be facilitating artificial insemination but this would not be a full time job and he would primarily need to be animal husbandry extensionist and trainer.

Feed production

Most of the households in both Sanagar and Salab use mainly crop byproducts (wheat straw and maize straw). In Sangar, fodder like clover and sorghum are grown on small pieces of land (on average 0.25 jerib). Majority of the households reported that the fodder grown on their fields and the byproducts from crops are sufficient for their needs.

The households which have received cows from DACAAR reported that they have access to sufficient fodder now but they foresee it as a problem in winter. According to an estimate per day feed consumption (6Kg hay, 3 kg wheat or maize grain and 1.5 Kg cotton seed cake) for a cow costs 55 Pak Rs. The average milk production from cow is 5kg per day (rate for 1kg=22 Pak Rs). Based on this calculation he can even afford to buy fodder from outside. Wheat, rice and maize straw are locally available and mostly consumed during winter when green fodder is scarce

In Salab, majority of livestock go to summer pasture (March-September) and in winter maize straw supplemented by Quercus leaves are used as feed.

Sanagar			Salab		
Village name	Average land holding	Average area for fodder (clover and sorghum) production	Village name	Average land holding	Average area for fodder production
Kuz Miankhel	1.32 (n=7)	0.16	Sahibzadgan	0.44 (n=4)	0
Bar Miankhel	0.95 (n=7)	0.09	Toor Khundi	0.39 (n=4)	0
Wacha Qila	0.94(n=12)	0.23	Salab-e-ulia	0.44 (n=4)	0
Masoom Qila	3.29 (n=7)	0.54	Ziarat	0.66 (n=4)	0
Azam Qila	0.80 (n=5)	0.22	Nanaga	0.55 (n=5)	0
Total	1.46 (n=38)	0.25		0.50 (n=21)	0

Looking at the data collected and group discussion with villagers in Salab they are not interested in growing fodder on more than 0.25 jeribs of land due to small land holding size and scarcity of irrigation water. Irrigation water from springs is available till end of March and then people having access to private tube well can irrigate summer crops. Currently there are 31 private tube well in all the five villages. It will also be not cost effective to grow fodder irrigated by tube well since the running cost of tube well is 80 Afs/jerib. The people in the villages are growing seasonal fodder like sorghum and clover to free land for the following growing season. So introducing a perennial fodder crop also does not seem to be feasible on large scale.

So in my view new fodder species which are winter active should be tested on small scale. The new fodder crops should also be introduced in Salab to 31 farmers having tube wells on a smaller scale. The major focus should be testing perennial rainfed fodder crops, combined with harvesting techniques to stabilize soil on slopes. According to an estimate US\$ 500 is proposed by DACAAR field staff to introduce new fodder crop varieties in Salab.

Women Resource Centre:

Women resource centre has already been established in Sangar in the house of Haji Sher Afazal. During follow up visit of the DACAAR female staff the women prioritized the following three activities.

- Carpet weaving
- Shop for women
- A public call office for women

These activities were discussed with male Association and they approved the first two activities during the monthly meeting of Association on 15 July, 2006. The male association members are also interested in cheese production activity which is not on women priority.

The association members also discussed the site for WRC as some of them were not willing to send their women to the already selected site as it is not centrally located. They selected the house of Mr. Abdur Razaq in Masoom Qila as it is centrally located and have a safe access for women. The new WRC has four rooms with big compound and water and the owner is willing to give the house for WRC.

As decided in the meeting with Mr. Asif , Shakilla Asad will further pursue the establishment of WRC and proposed activities. The post for WRC coordinator has already been advertised and once recruited she will be trained to facilitate the running of WRC.

Cheese production

The cheese production activity was also discussed with Association members in monthly meeting in Salab and Sanagar. In Sangar it was reported that only 24% of households reported sold cheese during past six month. Cheese making for sale is a seasonal activity which is done only in spring when enough fodder is available. The members reported that cheese production is carried out on small scale by almost every household for self consumption but there is not enough surplus milk to make cheese for sale.

In Salab cheese is also made during summer when the livestock are in summer pastures but again the association members stated that enough surplus milk is not available to make cheese for sale. However, they have established small groups (5 households) who give a specific amount of milk to each household weekly on rotation basis for cheese making which is sold to market.

Cheese marketing is not a problem in the area as there is demand within the villages from the people who do not own cows and it can also be sold easily in the Friday market at Sheikh Abad which is easily accessible from all the villages. Two types of cheese are produced i.e. Sheila and Khadag and the price varies depending on quality. Sheila which is of better quality is sold for Pak Rs. 1000/mond (1 mond is equal to 7 Kg) while Khadeg is sold for Pak Rs. 600/mond. The household reported that the cheese quality is better in autumn compared to spring. From 7 kg milk 1.75 kg of cheese is made using locally available equipments.

During my visit with Shakilla Asad to Guzargah Milk Processing factory in Kabul, the staff informed us that cheese making do not require sophisticated equipments and locally made equipment is available which can be bought for approximately 20 US \$ per unit. The staff also informed us that they can train DACAAR staff in cheese making.

The linkage between WRC and cheese making is not very clear as cheese making is not a regular activity to be carried out by all households. It is also not very clear whether the equipments bought (how many) for cheese making will be placed at WRC or distributed among households. However, it is suggested that when WRC Coordinator is recruited she should be trained in cheese making at Kabul and then she can train other interested women at WRC.

Budget:

Based on the above findings the following revised budget (US \$) is recommended.

	Approved	Spent	Proposed	Difference
Salaries				
Animal Husbandry technician	\$4,800	\$0	\$4,800	\$0
WRC Coordinator	\$4,800	\$0	\$4,800	\$0
Supplies				\$0
Cows	\$6,000	\$6,000	\$9,000	-\$3,000
Cheese equipment	\$3,000	\$0	\$2,000	\$1,000
Forage seed (plant material)	\$2,300	\$0	\$1,500	\$800
Services				\$0
Artificial insemination	\$1,200	\$0	\$1,200	\$0
Travel	\$650	Not known	\$650	\$0
Communications	\$500	Not known	\$500	\$0
Training	\$0	\$0	\$800	-\$800
TOTAL	\$23,250	\$6,000	\$25,250	-\$2,000

Brochures are developed to give others guidance into planning their own activities. These will be shared with RALF PI's and ICARDA prior to any one else for input. These could be circulated in a wider arena such as the other alternative livelihood activities. Through the survey and work done by DACAAR there have been farmers identified that would carry out the activities as pilot projects. There are still many activities especially those that need more information gathered that will require a model farmer or entrepreneur from the area to undertake such a project. Two such draft brochures are attached as amendments to this report. They are on woodlot establishment and nurseries for nuts, fruits and forests. We will wait review from ICARDA before making any available to stakeholders.

Planned Modifications to Project Implementation

The modification to this project was stated earlier in the Management Issues heading. Where the MAAH field staff have been very responsive and engaged in all the activities around the survey and development of pilot activities, the management has been slow to respond. We have therefore requested that some of the funds identified for the MAAH be used by DACAAR to implement the activities at the field level.

Dissemination Outputs

Attached are the "brochure" drafts for review.

Other Comments:

Response to Outcome-to-Purpose Review (OPR) by DFID Consultant

The OPR was done at the program level however most of my remarks on the review are at the project level.

No Cost Extension:

Security remains an issue and has affected our project on many levels. Activities have been delayed as stated in earlier reports. DACAAR has requested on several occasions for WSU to delay and even cancel trips. When we have arrived in country plans change daily because of reports from the DACAAR field offices deeming it unsafe to travel. That said, we have only altered our timeline once at the very beginning and have managed the project from Kabul. Some of the activities like the survey implementation would have been better carried out with WSU involvement but because of security restrictions this was not possible. Again please refer to previous reports.

The main reason we would like to have a no cost extension is because the pilot activity (described above) is just underway and would benefit from some oversight by the project coordinators. Where our main objectives in finding alternative livelihoods from village surveys has been complete this would also benefit from some follow up activities. We would also be able to prepare brochures and publications for other livelihood activities during the project benefiting the RALF program objectives of identifying alternative livelihood technologies.

Workshops:

I agree with the review that the RALF workshops should be confined to RALF and could take on themes such as the marketing workshop but also capacity building strategies and livelihood analysis. It was recommended that we all meet and work on our respective logframes after the M&E report by Pain and Martin came out. This was an excellent idea but now might be a bit too far for any impact. I believe that reporting at these workshops should not be done but instead have a forum where we can share lessons learned on implementing our activities or the process involved.

Monitoring and Evaluation :

I agree with the OPR review that there would be some benefit in revising our logframes. The assistance from program staff would be essential where they could work with individual PIs on their logframes. I would suggest a strategy put forth by the program staff that would incorporate the recommendations to each project from the Pain and Martin report. For example the PIs could work on redefining the activities that have already gone on, incorporating the changes due to unanticipated or anticipated risks such as security. With the remaining activities the logframe could be developed to add or subtract but mostly redefine. For example the report on 01-03 suggested that the "...project strategy..., as expressed in the purpose..." is really an activity. Clearly it is and clearly we could utilize a different approach in the logframe which would benefit the overall program M&E. Where our purpose in 01-03 is to develop research on potential alternatives by building the capacity of DACAAR and MAAH (or MAAHF or...) by integrating needs identified by villagers, we have focused on the livelihoods of farmers and potential markets for those prioritized activities.

It was suggested by Pain and Martin that we use an indicator of researchers working with poppy growers to better assess the impact our program might have. ***This is first of all impossible in the villages we selected because all farmers have agreed not to grow poppies and because it would be dangerous (especially for WSU) for DACAAR to be interacting with poppy growers.*** The report also suggests that we monitor the perception of risk among the different social groups. We did not include this in the original design because the project would then be an exercise in surveying and not identifying alternative livelihoods.

Here is the M&E portion of our project as outlined in the proposal:

Monitoring will be built into the project through a series of reports to the RALF program. Washington State University

Twice Yearly Status Reports: Such reports shall be submitted to the RALF program, and DFID Project Officer as identified. These Reports are meant to be concise status reporting mechanisms that summarize results/progress and identify developing issues and problems, according to an agreed upon format that can easily be updated and include the following:

- Identification of all professionals involved in rendering assistance and their respective roles and responsibilities, including who will be responsible for providing the information referred to below;
- Summary of progress on major implementation steps;
- Identification and description of implementation problems, proposed actions to address such problems;
- Impacts achieved as a result of a DFID intervention or advocacy. An impact can be considered a change in policy or a change in behavior as a result of the assistance;
- Coordination with other RALF implementers
- Updated pipeline analysis including obligations, disbursement and accruals
-

Annual Project Results Report: Delivered at the annual workshops.

Social Economic Science Research Center

- The SESRC will deliver a needs assessment report of DACAAR's capabilities and identification of survey tools required.
- A training manual and report will be delivered after the training of DACAAR staff is completed.
- An analysis and training report will be delivered after the survey has been completed.

Danish Committee for Aid to Afghan Refugees

- A survey report and analysis will be delivered to WSU-SESRC and the MAAH.
- Implementation plan for projects researched and developed by the MAAH.
- Quarterly reports on the implementation of village organization projects.

Final analysis of implementation projects.

MAAHF:

We agree with the review that M. Sharif has been a great asset to the program. We have also visited with DM Jawad who was also very supportive of the project. He offered ideas for "quick impact" activities that we then proposed to the Laghman MAAHF head Mr. Safi. At this provincial level is where PIs need support. Change over and poor salaries put the MAAHF in a poor position to assist in the project and until they are better supported they will play a small role if any on researching alternative livelihoods.

Detailed Plan for Remaining Period:

If we are indeed asked to submit for a no-cost extension I feel that each PI could develop a plan for the remaining period. Perhaps this could be in conjunction with the logframe revision activity.

Part of our efforts in Afghanistan have been finding ways to scale up the alternative livelihood projects. We have been approached by both GTZ and USAID to develop activities in Laghman but have been hesitant because of the use of PRTs. ***These military entities and their presence in the villages cause a potential security risk to the villagers we are working with.*** We have also noted that USAID's monitoring and evaluation require names and places of all farmers we work with. We have therefore been hesitant to work with USAID. WSU has also been approached by the USDA to also work with them on agricultural activities but we have refused because of the risk to our implementing partners. **We are therefore requesting a**

therefore requesting a statement from ICARDA concerning working with PRTs whether they find them necessary or effective.

Signature:

Date: August 18, 2006

Name of Leader: Chris Pannkuk

ACHIEVEMENTS AGAINST LOGICAL FRAMEWORK

RALF Project Number	RALF01-03
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Survey development and training in survey techniques have been drafted.

Attachment 1: Logical Framework

Project Title	
Lead implementing institution	

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions and Risks
Goal: To assist farmers in identifying alternative livelihoods that would replace opium production.	<ol style="list-style-type: none"> 1. Decrease in opium poppy production dependency 2. Increase in alternative livelihoods 3. Decreased number of farmers growing poppies/increased numbers growing new/different crops 4. Decreased area under poppy production/increased area of alternatives 	<p>Crop assessments Post-evaluation Farmer/village surveys</p>	<p>Support of local government Interest & cooperation from villages in target area</p>
Purpose: To develop research activities for alternatives to poppy production by building the capacity for the Ministry of Agriculture and Animal Husbandry from a structure that integrates needs identified by village organizations in Alingar district of Laghman province.	<ol style="list-style-type: none"> 1. Identified, tested and running alternative livelihoods in village organizations 2. Capacity of agricultural research centers strengthened to respond to requests from village organizations 3. Increased response/actions by partners to assist village organizations 4. Positive attitude by villages toward initiatives to develop alternative livelihoods 	<p>RALF Reports MAAH Reports DACAAR Reports Survey results in RALF reports</p>	<p>Village organizations identify viable alternatives MAAH research alternative livelihoods</p>
Outputs: 1. Survey of farmer attitudes to opium poppy production and alternative livelihoods	<ul style="list-style-type: none"> • Survey development and training by SESRC with DACAAR and MAAH • First survey of village organizations • Analysis of first survey and training of DACAAR and MAAH staff on methods used 	<p>RALF progress reports MAAH reports on activities related to RALF</p>	

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions and Risks
<p>2. Needs assessment and improved capacity of an MAAH agricultural research station to respond to village organization requests</p> <p>3. Analysis of the potential for marketing the products identified during the survey.</p> <p>4. Implemented pilot activities where the data from outputs 1 and 3 are used to initiate marketing of products.</p>	<ul style="list-style-type: none"> • of first survey results to MAAH research station in Laghman by DACAAR and SESRC • Second survey of village organizations • Analysis of second survey • Presentation of second survey results to MAAH by DACAAR and SESRC <ul style="list-style-type: none"> • First needs assessment of MAAH Laghman research station for general research needs • Second needs assessment for research needs after presentation of survey results • Third needs assessment of research station needs after second survey results • First procurement of equipment and training for MAAH staff • First round research of needs by MAAH from village organizations • Second round research of needs MAAH from village organizations <ul style="list-style-type: none"> • Training on techniques in marketing analysis will be done by WSU to train MAAH and DACAAR staff. • Specific market analysis of products or enterprises identified from survey analysis will be carried out by WSU, MAAH and DACAA <ul style="list-style-type: none"> • Village organizations request research on alternative livelihoods by the end of 6 months • MAAH respond to VOs requests • VOs adopt livelihoods 	<p>RALF progress reports</p>	

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions and Risks
Activities:			
1.1 WSU and DACAAR develop survey for VOs	Developed survey	Project progress reports	
1.2 WSU train DACAAR staff on survey technique and analysis	Training held at DACAAR Kabul offices		
1.3 DACAAR conduct survey	Survey results analyzed and reported to MAAH	Survey published	
2.1 WSU and MAAH conduct need assessment for applied research	MAAH to determine which station to accomplish applied research in the affected region		
2.2 WSU and MAAH develop plan for training and equipment needs	Document to be approved by oversight committee		
3.1 DACAAR and WSU carry out analysis of market potential for products identified	Report on market potential	Report published	
4.1 Review and select projects requested by VOs	Projects approved after 6 month in first round and 18 months for the second round	Call for proposals	
4.2 Monitor and evaluate projects			

Plant Nursery Activity

Benefits

Proper nursery management has become increasingly urgent in Afghanistan which is recovering from a long drought. Many villagers are looking for replacements of multi purpose trees, grasses and shrubs. The villagers are in a good position to supply seedlings for out planting in their own villages as well as neighboring villages. The goal is to promote the out planting of trees, shrubs and grasses by motivating villagers to become self sufficient in their gathering their own seed and raising seedlings. This will reduce the problems of centralized production and distribution of seedlings, the use of polyethylene pots, and the costs to farmers. With widespread adoption, germination and survival rates of nursery and planted seedlings will greatly improve.

Costs and returns for a half jerib nursery that produce 5,000 saplings per year show an average return of nearly 100,000 Afs. Improved seed varieties can be purchased for an average of 3,000 Afs in the major towns and markets. Polythene tubes can be purchased in major town markets for 850 Afs and potting soil components to fill them can be found locally and delivered to the nursery for 1,100. Small one half jerib nurseries can be established with local materials and labor costs under 14,000 Afs. Tree saplings, shrubs and grass plugs can be sold locally for an average of 20 Afs per sapling. Forest saplings will be sold for 5 Afs, shrubs for 4 and grass plugs for 3.

This activity would most affect the women and girls where they are the ones responsible for the collection of fuel and fodder they will also be in the position to gather seed. The nurseries can be established in areas close to the village where distance traveling will not be a problem and for privacy walls can be constructed.

Site Selection

Nursery sites should be conveniently located for ease of management, protection, shade and near a water source. The size depends on the number of seedlings where half a jerib will adequately nurse 5,000 seedlings. Choose a site that is near to the village; remove vegetation retaining the top soil for the soil mix. Protect the area from the prevailing winds with a wall or natural fence break. A large tree or two in the corners will provide shade for the workers and protect the young seedlings from extreme weather conditions. Make a sketch of the nursery layout including: germination beds, potted seedlings, compost piles, pathways, storage, water sources and work areas.

Site Preparation

After selecting the site it is important to level the area if there is more than a 10 percent slope. Create terraces at least 5 meters wide allowing for at least 2 or more beds including pathways. Remove all stones and compact the soil prior to making the nursery beds. Plant some of the grasses intended for production on the terrace slope.

In general 5 square meters is needed to seed 1000 seedlings regardless of whether they will be grown bare root stock or in containers (double this area to allow for space to work). The width of each bed should not exceed 1 meter to allow access to each seedling. The walkways should be at least 60 centimeters wide. Arrange the beds in blocks of 500 or 1000 seedlings so that stock taking is easy. Align the beds east to west to give the trees more exposure to the sun.

Bare rooted stock simplifies nursery operations by eliminating the costs and labor involved with containers. They are especially convenient where the distances from the nursery to the planting sites are short. Therefore it is recommended that these be sold locally. Nursery containers are used when the seedlings will be transported long distances. They minimize the risk of disturbing the roots and drying out.

Small Woodlot Planting Activity

Benefits

The practice of planting small woodlots is becoming a popular farm enterprise because of its ease of management due to its proximity to villages and households. The most common forms include planting trees in woodlots, on boundaries and around homesteads using a variety of exotic and indigenous species for different uses: fuel wood, building material, timber, fruits, shade, medicines, oils, animal fodder and income. These practices allow crops to be inter-planted during the first and second growing seasons to maximize use of available land. A key focus is to promote enterprises at the village and household levels to sell a range of products in local markets and to private sector industries.

For fuel wood, where a family uses at least 7kg/day or 2.6 tons/year, they spend 7Afs/kg or 18,200 Afs/year if purchased at the local market. A sustainable fuel woodlot planted to a fast growing poplar or eucalyptus can produce on average 10 tons per year per jerib (1 jerib = 0.2 ha) worth over 63,000 Afs with minimal input after three years. Wheat and maize systems will only give an annual income of 10,000 Afs after direct costs.

Because the practice takes place on small plots it is expected that individual farmers would engage in this activity. However, it is recommended to facilitate organization and planting so that a number of farmers could be involved in a joint effort. This would also have advantages later in marketing the fuel wood. Income will not be realized until the fourth year so farmers with a high income would be more likely to engage. Women and girls will most benefit from the time savings of walking far distances to gather fuel wood. This will increase time available for economically and socially productive activities such as farming, caring for families, attending school, leisure, and greater participation in decision-making at all levels.

Site Selection

Woodlots grow best in fertile, productive agricultural soils. However they can be established almost anywhere and where a farmer feels he has sufficient land to plant to a non food crop. Young trees grow best where there is adequate moisture. Most poplar species do best in areas that receive over 400mm of precipitation a year or have access to irrigation water particularly in the first two years after planting. Poplars do not do well where the soil is saline and prefer a pH of 5.5 to 7.5. While it is not always possible to use the best site, the poorest sites should be avoided.

Site Preparation

Proper site preparation is essential. Site preparation practices are similar to that used for wheat and maize crops. Autumn tillage left fallow through the winter follow by planking or leveling in the spring. Intensive site preparation is needed for land in pasture or forage crops to make sure that all perennial plants are controlled.

Sapling Varieties

Poplar Variety	Source	Pedigree	Sex
OP 367	Europe	<i>P. deltoides x nigra</i>	Male
Eridano	Europe	<i>P. deltoides x maximowiczii</i>	Male
52-225	Univ. of Washington	<i>P. trichocarpa x deltoides</i>	Female

Planting and Spacing

Growing conditions limit the suitability of planting unrooted cuttings. As a result, the currently recommended plant material is dormant rooted cuttings. The cost per cutting is 10 Afs and planting

1. Rooted cuttings should be planted in the spring before the shoots break bud and start new growth.
2. Before planting, the field should be marked to ensure uniform spacing.
3. Plant trees slightly deeper (2.5 cm) than the depth they grew in the nursery.

Spacing affects tree growth and health, maintenance and end use of the wood. Poplar is intolerant of shade and the more closely planted the less sun the tree will receive. Competition from neighboring trees will also affect tree growth. Dense plantings are more prone to disease because of reduced air circulation and high humidity. Widely spaced trees attain crown closure at a later age which means that an additional year or so of weed control may be necessary. Wider spacings result in faster growth, larger crowns and heavier branches. Choosing a spacing is generally a compromise depending on the poplar's optimum growth requirements. The recommended spacing for cuttings is 1 by 1 meter or a total of 20,000 cuttings per jerib.

A wheat crop may be planted the first year but expect yields to be reduced by 25% because of competition. The second year a legume crop such as alfalfa or medic may be planted for fodder crop but the yield will be at least 50% reduce. In the seventh year again a legume fodder crop may be planted between rows. This crop should only realize a reduction in yield of 25% and should benefit the tree crop.

Thinning

Thinning should be done every year with the intent to leave 32 trees per jerib at the end of 9 years. Alternate direction thinning is accomplished by cutting from rows of trees alternating the direction every year. After two years with optimal growth the trees will be over six meters high and 28 trees can be harvested per jerib. In the following years, thinning will alternate between 21 and 24 trees thinned however, it is best to thin those trees that are dead and diseased first.

Diagram of suggested thinning where each number represents a tree planted one meter apart. (1 indicates the first year thinned, 2 the second etc. leaving 0 for the last tree to be harvested)

0	1	4	0	1	4	0	1	4	0	1	4	0	1	4	0	1	4	0	1
2	3	6	2	3	6	2	3	6	2	3	6	2	3	6	2	3	6	2	3
5	7	8	5	7	8	5	7	8	5	7	8	5	7	8	5	7	8	5	7
0	1	4	0	1	4	0	1	4	0	1	4	0	1	4	0	1	4	0	1
2	3	6	2	3	6	2	3	6	2	3	6	2	3	6	2	3	6	2	3
5	7	8	5	7	8	5	7	8	5	7	8	5	7	8	5	7	8	5	7

0	1	4	0	1	4	0	1	4	0	1	4	0	1	4	0	1	4	0	1
2	3	6	2	3	6	2	3	6	2	3	6	2	3	6	2	3	6	2	3
5	7	8	5	7	8	5	7	8	5	7	8	5	7	8	5	7	8	5	7
0	1	4	0	1	4	0	1	4	0	1	4	0	1	4	0	1	4	0	1

Weed Control

Good weed control is absolutely essential. Most weeds have a more vigorous root system than trees and grow faster so they use soil moisture and nutrients and shade small trees. Weed control is important until trees are large enough to shade out the weeds. With the trees spaced at one meter apart this takes two to three years. Once the tree canopy is developed, its shade is very effective in reducing weed competition. In the first two years a row crop may be planted so long as it is not close to the tree. It is recommended that short stature crops such as legumes be planted and avoid the taller crops such as maize which will produce a canopy and compete for sunlight. Hoeing is the most effective means of controlling weeds and should be done before the weeds are 10 cm in height. This means that letting weeds grow for fodder harvest is not a good practice. Tillage must be shallow to avoid damaging the root system. Also, care must be taken to ensure the trees are not physically damaged. Three times through the growing season at a cost of one days labor per weeding.

Irrigation

Sufficient water supply is essential for adequate growth. After planting the rooted cuttings it is necessary to irrigate at least 3cm of water. For the next four weeks it will be necessary to irrigate twice per week at a depth of at least 2cm. After this time soil moisture should be monitored and when the soil dries at 20 cm irrigation should be applied at a depth of at least 4 cm the first year and 5 cm the following years. Irrigation costs depend on the climatic conditions but it would generally cost a total of 1,000 Afs per year averaged.

Fertilizing

Poplars respond well to nitrogen inputs. Where it is necessary to have fertile soil it is not always necessary to apply the recommended amount (100 kg/ha N, 40 kg/ha P and 10kg/ha Zn) however, best results are seen when fertilizer is applied.

Pruning and Harvesting

It is often best to pollard or cut the branches from the poplar to ensure a straight trunk without knots. This can be done at any time but is best when the leaves are young and tender and can be used for fodder for animals.

Harvesting should be done by cutting the tree at ground level. Sprouts will emerge the next year and can either be removed or pruned further so that one tree grows back thus continuing the cycle of a woodlot.

COSTS	Year									
	1	2	3	4	5	6	7	8	9	10
Labor										
Plowing	400	400	400							
Planking	300									
Planting	1600	400					150	150	150	150
Irrigation	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Weeding	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200

Pruning				150	150	150	150	150	150	
Harvesting	600	600	600	600	600	600	600	600	600	600
Inputs										
Cuttings	18000									
Fertilizer	1100	1100	1100	1100	1100	1100	1100	1100		
Wheat	300									
Fodder crop		300					300	300	300	300
Tools	300			500						
TOTAL COSTS	24800	5000	4300	4550	4050	4050	4500	4500	3400	3250
INCOME										
Wheat	5000									
Legume fodder crop		4500	3500				3500	3500	4500	4500
Fuel wood			16000	31000	45000	50000	63000	79000	95000	110000
Fodder								1500	1500	1500
TOTAL INCOME	5000	4500	19500	31000	45000	50000	66500	84000	101000	116000
INCOME - COSTS	-19800	-500	15200	26450	40950	45950	62000	79500	97600	112750

Cost and Income are based on Afs per jerib

Returns

Confirmation of a fuel wood market should be identified before the project begins. It is possible that all or at least part of the production should be sold locally to the bakeries or blacksmith. It is estimated that after two years there can be a harvest of nearly 2,300 kg per jerib of poles 7 cm in diameter and 6 meters long. The trees will continue to grow 3 meters in height and 2.5 cm in diameter every year. The estimated harvest will increase every year by 2,250 kg per jerib until year ten when 18,000 kg will be harvested per jerib. The first year will be an investment of nearly

Project 01-04:

Introduction, Evaluation and Promotion of Appropriate Crop Legumes and Vegetables

Eastern Provinces

Project 01-07:

Restorative Agriculture and Rural Economy Research Project (RARE)

Helmand, Kandahar

Date: 30 June 2006

RALF Project Number: 01-07

Project Title: Restorative Agriculture and Rural Economy (RARE) Research Project

Project Leader: Dr. Geoffrey Dolman

Organisation: Mercy Corps Scotland

Collaborators:

1. Centre for Arid Zone Studies (CAZS), University of Wales, Bangor, Gwynedd
2. Ministry of Agriculture and Irrigation, Kandahar Department of Agriculture and Irrigation,
3. Ministry of Agriculture and Irrigation, Helmand Department of Agriculture and Irrigation, Lashkar Gah

Start Date: 1 June, 2004

End Date: 31 January, 2007

Budget: US\$400,000

Progress Report

After two years of implementation, the project has made good progress in identifying activity areas for southern Afghan farmers that can contribute towards the RARE project goal: “a rural economy that supports agricultural livelihoods that are legitimate, economically viable, culturally appropriate, and environmentally sound.” Likely initiatives include organic export, mushroom production and polytunnels. Unfortunately, security constraints in southern Afghanistan have hindered the achievement of several outputs.

Please see attached matrix

Management Issues

- Inevitably, spending has not been exactly as predicted, and the RARE budget needs to be reviewed thoroughly. A number of changes to the allocation of funds to different budget lines will be presented to the RALF Programme Manager for approval. Even before the revision is conducted however, we can be certain that there is an overall shortfall. RARE will make use of co-financing from other Mercy Corps Afghanistan programmes, such as the Supporting Rural Recovery Programme (SRRP) funded by the US Department of Agriculture. Further funds to enhance the project’s work will also be sought from other donors.
- Mercy Corps Scotland has provided about £9,000 (\$16,650), which will be used to fund a pilot scheme to supplement the Organic Export Feasibility Study, in which an association of organic farmers will be formed in Kandahar with the initial aim of exporting 10 tonnes of organic raisins to the UK.
- \$1,900 was also provided from Mercy Corps funds to pay for a consultant to help analyse some of the economic data accumulated by RARE. This input could have been greater if, unfortunately, the consultant had not been taken ill and had to return home after only 10 days in the field.
- The management structure has remained unchanged in the second half of 2005, with Hajji Barak as Project Manager, based in Lashkar Gah, Helmand, and Attiqullah Khan, who contributes 25% of his time to the RARE project, as Deputy Project Manager based in Kandahar.
- The Agriculturist/Extension Workers, Gul Mohammed and Abdullah Jan, based in Kandahar, and Hajji Paind and Hajji Amanullah, based in Lashkar Gah, remain with RARE.
- Andalib, the Manager of the Agricultural Innovation Centre (AIC) in Lashkar Gah, was transferred to SRRP on 1 November 2005, as part of that programme’s co-financing. The RARE activities carried out there are the mushroom production and out-of-season vegetable production, which are now also being supported by SRRP.
- Abdul Samad and Abdul Hakim continue to be drivers for RARE.
- The Annual Report for 2005 said that the security situation remains bad. It has unfortunately deteriorated further. Mercy Corps has a safety committee, comprising local staff members with an excellent knowledge of the area who determine “go” and “no-go” areas. They have severely restricted staff in their movements, and at the end of this reporting period, during June, the expatriate manager was not permitted to visit either Lashkargah or Kandahar. Local staff were forbidden to travel between these two cities except when absolutely necessary. Previously, project activities had been restricted to areas close to Lashkar Gah and Kandahar cities. This has hampered a number of activities:
- - i) **Poly-tunnels and drip irrigation.** Farmers responded cautiously when requested to participate in this investigation in 2004, but having seen the results, many were keen to participate in 2005. This was an opportunity to locate poly-tunnels over a much wider area, to test their acceptance in relation to different types and sizes of market – seen to be a critical point concerning whether they are likely

are likely to offer an alternative livelihood to poppy – but this opportunity had to be passed over. The same was true in the investigation of drip irrigation.

- ii)
- iii) **Agri-enterprises.** It was intended to conduct a survey of current agri-processing in Kandahar and Helmand Provinces as a basis for deciding on areas for study. For this to be relevant to replacing poppy cultivation it should be a survey of rural areas. This was impossible and the choice of activities to study is correspondingly compromised.
- iv) **Organic Export Feasibility Study.** A key point in this study is the reception and perception of organic production by farmers, and it would be necessary to travel round rural areas interviewing farmers to investigate this properly. Mercy Corps has invited farmers to their office to interview them, but this is a less effective means of testing opinion. For the pilot scheme to export 10 tonnes of organic raisins from Kandahar, it will be necessary to form a farmers' association and provide them with an extension service, and also to bring an organic certifier, who should visit the farms. If security remains as it is now, it will not be possible for either the certifier or extension agents to visit rural areas. Things would have to alter dramatically before the extension service could be provided by the Ministry.
- v) **Community Decision-making.** The decision by communities and individual farmers on whether or not to adopt new technologies is more than a matter of whether they are technically sound and profitable, and Output 9 is concerned with what does affect these decisions. A consultant engaged to conduct this investigation proposed interviews with 100 farmers, 50 men and 50 women. As things are, this will be impossible.

Research Process

Project Partners

- At the beginning of the partnership with CAZS, in July 2004, a consultancy was conducted to formulate an implementation plan. During late 2005, three consultant visits occurred and led to recommendations for further activities within RARE – such as a mechanism for determining community decision-making regarding poppy cultivation. As noted, the security situation in the south has prevented those recommendations from being carried out.
- The Henry Doubleday Research Association is under contract to conduct the Organic Export Feasibility Study, comprising Outputs 6, 7 and 8. They have been responsive, innovative and adaptable in their approach to these outputs. They have now completed Phase 1 and Phase 2 of the agreed programme for the study. Their consultants Julia Wright and Alan Chubb visited Afghanistan from 21 January to 2 February 2006. They have submitted a report combining the report of their visit and their report on Phase 2 of the study. They have proposed two possible alternatives to the third and final phase as agreed in the contract (within the budget of the original contract) to maximise the value of their input.
- Concerning project partners Kandahar Department of the Ministry of Agriculture and Irrigation (MAI), as mentioned in the last report, involvement of this department is less successful than we would wish. A RARE poly-house is located in MAI Research Station. However, the chief motivation for their involvement was that they were perceived as the agents who would disseminate the successful technologies produced by RARE, and there is no indication that they will be able to perform this role. They are hardly able to leave their offices. At the same time, however, Mercy Corps has been developing a strong relationship with Kandahar University, which also has an Extension Department. RARE is attempting to involve the University staff for this purpose instead. Sayeed Kabeer, Dean of the Faculty of Agriculture, Kandahar University, came with the Deputy Head of Agriculture in Kandahar to the Third RALF Workshop in Kabul on 14 and 15 June.
- The partnership with Helmand MAI continues. As stated in the last six-monthly report, RARE sponsored four women from Helmand, introduced by the Ministry, also to attend the mushroom production training. Two of these women, including the Head of the Helmand Women's Association, are still participating and are active in producing mushrooms at AIC. However, the core staff members are similarly constrained to those of Kandahar.
- G. Dolman has visited the Deputy Minister of Agriculture, Animal Husbandry and Food, Sharif, on several occasions for various reasons, but always including briefing him on progress in the investigation of mushroom production, in which he takes a keen interest. MAI and Global Hope Network International are collaborating in a project funded by the Counter Narcotics Trust Fund to promote mushroom production with which RARE is cooperating. A number of possibilities for the dissemination of this technology are emerging from this cooperation.
- The Deputy Minister has issued written instructions to the Department of MAI in Kandahar to cooperate in all stages of the pilot scheme for the export of organic raisins to UK.

ICARDA

- G. Dolman gave a presentation on RARE at the 3rd RALF Workshop on 14 June 2006
- Penelope Anderson, Mercy Corps Programmes Director, also attended the 3rd RALF Workshop.

- G. Dolman has maintained regular contact with the RALF Programme Manager, Najib Malek.
- Cooperation has continued with Dr. Javed Rizvi, the Principal Investigator of RALF02-11, who is providing assistance towards assaying varieties of basil for their essential oil content.

Planned Modifications to Project Implementation

- It was planned to engage with farmers in a wider area in 2005/06 than in the previous year to try the poly-tunnels for out-of-season vegetable production. However, due to the worsening security, the project has been forced to work only with farmers close to Kandahar and Lashkar Gah cities. All the poly-tunnels, except the one at Sakari Bagh in Kandahar are within 3 km of the respective cities.
- As stated in the Annual Report for 2005, the original proposal to investigate the production of essential oils from mint and basil was replaced by a trial of different varieties of basil to compare their essential oil content, and if possible quality. RALF02-11, implemented by ICARDA, is investigating the production of essential oil from mint.
- Output 9, "30-month study testing the effectiveness of local decision-making in encouraging alternative livelihoods", has not been possible as a 30-month study, because security conditions have prevented communications with communities. In December, a consultant from CAZS visited Helmand, and suggested giving a questionnaire to 50 men and 50 women farmers, seeking those who did not grow poppy in order to find out the reasons why, despite the fact that it was the most sensible crop to grow by many criteria. He suggested this should be carried out at the end of the poppy harvest. At that time, there were three Districts that were judged to be reasonably safe. Unfortunately the end of the poppy harvest (the beginning of June) coincided with a marked upsurge in violence, which caused the Security Management Team to ban travel for expatriates even to Lashkargah. Such a survey is out of the question in the current insecure conditions.

Dissemination Outputs

For as long as possible, RARE activities were communicated to farmers and others by formal meetings and visits, as summarised in the Annual Report of 2005. Large, publicised events have now become inadvisable, but individuals still show an interest, which RARE staff respond to and encourage.

- In AIC, records have been kept, and in 2006, there have been 58 visitors to the mushroom house and poly-houses there. Records for Sakari Bagh are not available, but visitors are also frequent there.
- On 2/1/06, 25 students and 6 members of staff from Kandahar University visited Sakari Bagh to see the RARE activities there, in particular the mushroom house. They were interested and impressed. Prof. Nasrullah, the head of the visiting team, said, "Now I know some NGOs such as Mercy Corps are doing good activities. This is wonderful research work."

Other Comments:

Out-of-season vegetable production in poly-houses has proved to be a highly promising technology. In isolation, the investigation of a low-cost poly-house design, using only materials available on the local market, would, we consider, have had direct application in the field and the technology would have been widely adopted. However, the design investigated would have cost a farmer nearly \$300 for a poly-house 80m² in area. Other organisations, as part of much larger programmes than RARE, have been offering farmers poly-houses of up to 280m², using far superior materials, imported for the purpose and costing around \$3000 at market price, for \$500. Obviously in these circumstances there will be little demand for the unsubsidised RARE option. Despite this, the RARE investigation was an effort well-spent. It was very noticeable that farmers were not interested in the first year, 2004/05, when the technology was unknown, but far more interested in the second year after RARE had demonstrated and publicised it. Staff on one of the larger programmes, which started in 2005/06, have acknowledged that it was far easier to promote this technology as a result of the introduction of it by RARE.

Much the same is true of RARE's investigation of low-cost irrigation. This showed that there are a number of disadvantages to small-scale drip irrigation due to the nature of the supply of water. Larger programmes are introducing drip irrigation on a larger scale.

Signature:

Date:

Name of Leader:

ACHIEVEMENTS AGAINST LOGICAL FRAMEWORK (As Designed by Mercy Corps)

Project Outputs and Activities:	OVIs	Achievements from 1 January to 30 June 2006 and Comments	Planned Achievements for 1 July to 31 December 2006
<p>Output 1. Economic analysis of a variety of staple, cash and specialty crops (extension publication produced)</p> <p>Activity 1.1: Baseline survey of past and current cropping systems in target clusters</p> <p>Activity 1.2: Crops to be examined are participatively selected with farmers, traders and other relevant stakeholders</p> <p>Activity 1.3: Farmer innovators are identified per cluster</p> <p>Activity 1.4: Testing and monitoring of crops with farmer innovators or farmers currently growing selected crops</p>	<ul style="list-style-type: none"> ✓ # and type of crops and production methods tested ✓ On farm experiments are visibly underway both on demonstration plots and among participating farmers. ✓ # of farmer innovators and other farmers testing new crops and production methods 	<ul style="list-style-type: none"> - 12 poly-tunnels planted for the 2005/06 season in Kandahar and Helmand maintained and records kept. 9 are hosted by farmers, 1 by MAAHF Kandahar, 2 by Mercy Corps in Kandahar and Helmand. - The poly-tunnels for 2005/06 are all located close to Kandahar and Lashkargah cities, but still some farmers have asked not to be visited by foreigners for fear of insurgent reprisals. - The market survey to investigate market opportunities for out-of-season vegetables continues and analysis of the data is underway. - A trial to compare the yield of essential oil from 10 varieties of basil is underway, and is close to the first harvest. - Mushroom houses in Kandahar and Helmand have been used for mushroom production. The second crop is in production in both places. - Over 30 students and staff from Kandahar University visited the mushroom house in Sakari Bagh, Kandahar and expressed great interest in the project. 58 farmers and staff of other organisations have visited the poly-house and mushroom house in AIC, Lashkargah. - From an initial position in which it proved impossible to sell the mushrooms, all the production from Lashkargah is now sold for 120 Afs/kg. - RARE is cooperating with MAI and Global Hope Network International in a 	<ul style="list-style-type: none"> - Complete analysis of data from baseline survey of past and current cropping systems in Helmand and Kandahar. - Complete trial of out-of-season vegetable production - Report on out-of-season vegetable production - Engage the interest and inform farmers of the results as far as possible within the restrictions imposed by the security situation. - Engagement with farmers and geographic coverage will be limited due to insurgent activity. - Grow a third crop of mushrooms and explore marketing possibilities further. - Develop strategy for disseminating mushroom technology - Report on mushroom technology - Assay varieties of basil for essential oil content. - Report on basil variety trial

		International in a project aiming to provide a source of spawn accessible to local people.	
<p>Output 2. Economic analysis of different types of improved small-scale-irrigation systems (extension publication produced)</p> <p>Activity 2.1: Baseline survey of past and current irrigation practices for key local crops is conducted Activity 2.2: New, small-scale irrigation systems are sourced and tested under a variety of conditions Activity 2.3: Review of efficacy of each system compiled</p>	<ul style="list-style-type: none"> ✓ # and type of small-scale irrigation systems tested and in use ✓ On-farm experiments are visibly underway both on demonstration plots and among participating farmers. ✓ # of farmer innovators and other farmers testing new irrigation methods 	<ul style="list-style-type: none"> – Trials to compare small scale drip irrigation system with ridge and furrow on tomatoes and eggplant were set up in three farmers' fields, with University of Kandahar and in two locations run by Mercy Corps. 	<ul style="list-style-type: none"> – Complete trials – Report results – Engagement with farmers and geographic coverage will be limited due to insurgent activity
<p>Output 3. Review of past and current extension services, including recommendations for future market-driven supplies of agricultural support services, including technical agri-enterprise development and group/cooperative development (extension publication produced)</p> <p>Activity 3.1: A review of past, current and future strategies for providing technical, input and agri-business development services is examined at the farmer level, supplier level, current provider level and MAAH level</p>	<ul style="list-style-type: none"> ✓ MAAH verifies historical account of extension services. ✓ Provincial Departments of MAAH adopt some or all parts of recommendations. 	<ul style="list-style-type: none"> – Relationship with Kandahar University cultivated. Possibility of their taking on role of disseminating results of RARE technologies discussed. 	<ul style="list-style-type: none"> – Incorporate Kandahar Department of MAI in plans for the export of organic raisins to UK. – Initiate extension system for organic production of raisins. – Initiate system for certifying production as organic
<p>Output 4. Evaluations of at least 10 different small scale agri-processing industries (extension publication produced)</p> <p>Activity 4.1: Baseline survey of current agri-processing in Kandahar and Helmand Provinces Activity 4.2: High-potential agri-processing industries are identified and analysed for profitability</p>	<ul style="list-style-type: none"> ✓ # and type of agri-processing industries in Kandahar and Helmand compiled. ✓ Income generated and # of jobs provided by each current agri-processing industry compiled. ✓ Quantitative comparison made between current agri-processing industries and identified "high-potential" agri-processing industries identified for start-up. 	<ul style="list-style-type: none"> – Agri-enterprises in Helmand and Kandahar have been reviewed – 2 consultants from CAZS have made field visits and have made comments and recommendations 	<ul style="list-style-type: none"> – Review the recommendations of CAZS consultants and formulate an action plan

<p>Output 5. Case studies of agri-enterprises that prove to have value-added through experimental processing (extension publication produced)</p> <p>Activity 5.1: Project acts as catalyst to start or support “best bet” agri-processing industries</p> <p>Activity 5.2: Capital investment and other agri-business development services are sourced in collaboration with entrepreneurs.</p> <p>Activity 5.3: Process of development of agri-enterprises is documented throughout the project cycle.</p>	<ul style="list-style-type: none"> ✓ # and type of agri-processing industries actually started. ✓ # and type of jobs created. ✓ Amount of capital sourced for investment. ✓ % self-contribution by agri-processing industries for start-up ✓ Other agricultural support services demanded and absorbed by agri-processing industries. 	<ul style="list-style-type: none"> – Agreement has been reached with Arghandab, a Kandahar-based cooperative making and marketing products incorporating fruit and oils derived from fruit and other local products to conduct an economic analysis of their operation. – A project to train women who will then be employed in making packing crates for grapes and raisins in Kandahar has been set up. There remains only the location to be found. This is not easy because of the sensitive nature of employing women in that area. 	<ul style="list-style-type: none"> – Conduct training for women in crate-making and develop it as an income generating activity. – Investigate cleaning and packing of raisins in Kandahar.
<p>Output 6. In-depth feasibility study for the development of markets for organic Afghan agricultural products</p> <p>Activity 6.1: Relationship forged with international organization specializing in organic production, certification, and international sales.</p> <p>Activity 6.2: Consultant from above organization hired to conduct feasibility study.</p>	<ul style="list-style-type: none"> ✓ Agreement between MC and outside organization formalized. ✓ Study completed. 	<ul style="list-style-type: none"> – HDRA, based in UK, was engaged to conduct this study in January 2005. – They completed Phase 1 of this study in May 2005. – The report concluded that there was no insuperable barrier to the export of organic products, probably dried fruit or nuts 	<ul style="list-style-type: none"> – This Output was completed by the Phase 1 report. – For further action see Outputs 7 & 8.

<p>Output 7. A review of the different types of organic certification and an evaluation of how this might be applied and developed in an Afghan context</p> <p>Activity 7.1: Given Activity 6.2 is successful, a consultant is hired to review and provide a framework for organic certification in Afghanistan</p> <p>Activity 7.2: Findings are exchanged with MAAH and a preliminary work plan to develop organic certification is agreed upon</p>	<ul style="list-style-type: none"> ✓ Consultant hired. ✓ Organic Certification Recommendations for Afghanistan is produced. ✓ MAAH, MC, and other project participants and stakeholders are involved in discussion to determine to way forward for policy development. 	<ul style="list-style-type: none"> – HDRA are engaged in this Output – They have investigated overseas markets and have identified 4 traders in UK who are prepared to buy organic or Fair Traded produce from Afghanistan. Raisins are the first product of choice, and apricots second – 2 HDRA consultants visited Kandahar and obtained the agreement in principle from the Dried Fruit Traders Association to participate in a pilot scheme to export 10 tonnes of organic raisins to UK. – They conducted an awareness-raising workshop with farmers, traders and Ministry and University staff. – they have produced a report giving specific steps towards the development of trade in organic dried fruit. – MAI in Kabul have instructed the Department of MAI in Kandahar to cooperate with MC, and other project participants and stakeholders to determine the institutional framework for organic certification 	<ul style="list-style-type: none"> – Form farmers' association for the production of organic raisins – Send people for training in organic techniques, who will form the nucleus of an extension service – Bring in an organic certifier to initiate certification process – Bring in dried fruit trader from UK to reach agreement with Kandahar counterparts and farmers association – Engagement with farmers and geographic coverage will be limited due to insurgent activity
<p>Output 8. Publication of producer manuals explaining regulation of organics and guidance and instruction on organic agricultural practices</p> <p>Activity 8.1: Given Activity 7.1 is successful, a consultant will be hired to write producer manuals and instructions on organic agricultural practices.</p>	<ul style="list-style-type: none"> ✓ # and type of manuals produced. ✓ Manuals reviewed and accepted by MAAH. 	<ul style="list-style-type: none"> – Awaiting outcome of Output 7 – Pamphlets on organic techniques have been translated in Pashtu 	<ul style="list-style-type: none"> – Publish pamphlets on organic techniques that have been translated in Pashtu – Monitoring and evaluation report of conversion, local people and ministries trained, organic standards being developed. – Final report on the potential for organic production and export in Afghanistan

<p>Output 9. 30-month study testing the effectiveness of local decision making in encouraging alternative livelihoods (extension publication produced)</p> <p>Activity 9.1: Community leaders, farmers, local traders, residents, youth within the target cluster are brought together to discuss local ways directing local economies</p> <p>Activity 9.2: A committee is formed that is charged with drafting a cluster-based and community-influenced approach to decreasing poppy cultivation and building a new local economy</p> <p>Activity 9.3: Monthly meetings with committee takes place in which project staff and MAAH participate</p> <p>Activity 9.4: Various trainings and workshops take place as necessary (to be further determined during project)</p> <p>Activity 9.5: End of project review by cluster committee detailing the efficacy of the approach and outlining recommendations.</p>	<ul style="list-style-type: none"> ✓ Community members elect a committee. ✓ # and demographic profile of persons on the elected committee. ✓ # and type of trainings that committee members participate in. ✓ A cluster-based, community-influenced approach to decreasing poppy cultivation and building a local economy is documented. 	<ul style="list-style-type: none"> - A CAZS consultant who visited Helmand suggested a survey of 50 men and 50 women farmers to investigate why any of them would not grow poppy, to be carried out when the poppy harvest was over. This was deemed impossible because of security. 	<ul style="list-style-type: none"> - Keep consultant's recommendations under review determine action plan if the security situation improves
<p>Output 10. Review and analysis of past and current agricultural governance and recommendations for future role of Provincial Ministry of Agriculture in supporting the creation of alternative livelihoods (extension publication produced)</p> <p>Activity 10.1: Review of the past role of the Provincial Departments of Agriculture is conducted</p> <p>Activity 10.2: Participative survey conducted with farmers, traders and other pertinent stakeholders to gauge opinion on the most effective role of Provincial Departments of MAAH</p> <p>Activity 10.3: Provincial Departments of MAAH test new approach to their role in agriculture development and related poppy reduction and document results</p>	<ul style="list-style-type: none"> ✓ MAAH approves the historical account of the Provincial Departments of MAAH past and current roles. ✓ # and type of changes and improvements enacted by Provincial Departments of MAAH. 	<ul style="list-style-type: none"> - Within the current security situation it is not feasible for Ministry agents to be active in the field in Kandahar and Helmand 	<ul style="list-style-type: none"> - Determine action plan if the security situation improves

ACHIEVEMENTS AGAINST LOGICAL FRAMEWORK (As Advised by Adam Pain)

Note: The Project Manager for 01-07 prefers the original version

Project Outputs and Activities:	OVI s	Achievements from 1 January to 30 June 2006 and Comments	Planned Achievements for 1 July to 31 December 2006
<p>Output 1. Appropriate intensified agricultural production systems incorporating speciality crops tested and evaluated.</p>	<ol style="list-style-type: none"> 1. No. of farmers who indicate interest in investigation of new crops or production systems. 2. No. of new crops tested 3. No. of new production systems tested 4. No. new crops or production systems adopted by farmers 	<ul style="list-style-type: none"> – 12 poly-tunnels planted for the 2005/06 season in Kandahar and Helmand maintained and records kept. 9 are hosted by farmers, 1 by MAAHF Kandahar, 2 by Mercy Corps in Kandahar and Helmand. – The poly-tunnels for 2005/06 are all located close to Kandahar and Lashkargah cities, but still some farmers have asked not to be visited by foreigners for fear of insurgent reprisals. – The market survey to investigate market opportunities for out-of-season vegetables continues and analysis of the data is underway. – A trial to compare the yield of essential oil from 10 varieties of basil is underway, and is close to the first harvest. – Mushroom houses in Kandahar and Helmand have been used for mushroom production. The second crop is in production in both places. – Over 30 students and staff from Kandahar University visited the mushroom house in Sakari Bagh, Kandahar and expressed great interest in the project. 58 farmers and staff of other organisations have visited the poly-house and mushroom house in AIC, Lashkargah. – From an initial position in which it proved impossible to sell the mushrooms, all the production from Lashkargah is now sold for 120 Afs/kg. – RARE is cooperating with MAI and Global Hope Network International in a project aiming to provide a source of spawn accessible to local people. – Trials to compare small scale drip irrigation system with ridge and furrow on tomatoes and eggplant were set up in three farmers' fields, with University of Kandahar and in two locations run by Mercy Corps. 	<ul style="list-style-type: none"> – Complete analysis of data from baseline survey of past and current cropping systems in Helmand and Kandahar. – Complete trial of out-of-season vegetable production – Report on out-of-season vegetable production – Engage the interest and inform farmers of the results as far as possible within the restrictions imposed by the security situation. – Engagement with farmers and geographic coverage will be limited due to insurgent activity. – Grow a third crop of mushrooms and explore marketing possibilities further. – Develop strategy for disseminating mushroom technology – Report on mushroom technology – Assay varieties of basil for essential oil content. – Report on basil variety trial – Complete trials – Report results – Engagement with farmers and geographic coverage will be limited due to insurgent activity

<p>Output 2. A cross-cutting strategy for increasing the availability and accessibility of market-driven agricultural technical information and business development services produced.</p>	<p>1. No. of farmers aware of market-driven agricultural technical information and business development methods</p>	<ul style="list-style-type: none"> - Relationship with Kandahar University cultivated. Possibility of their taking on role of disseminating results of RARE technologies discussed. 	<ul style="list-style-type: none"> -
<p>Output 3. Technical and organisational aspects of post harvest processing and other agro enterprises tested and evaluated.</p>	<p>1. No. of post-harvest processing technologies evaluated 2. No. of agro enterprises evaluated 3. No. of social groups identified as being involved</p>	<ul style="list-style-type: none"> - Agri-enterprises in Helmand and Kandahar have been reviewed - 2 consultants from CAZS have made field visits and have made comments and recommendations - Agreement has been reached with Arghandab, a Kandahar-based cooperative making and marketing products incorporating fruit and oils derived from fruit and other local products to conduct an economic analysis of their operation. - A project to train women who will then be employed in making packing crates for grapes and raisins in Kandahar has been set up. There remains only the location to be found. This is not easy because of the sensitive nature of employing women in that area. 	<ul style="list-style-type: none"> - Conduct training for women in crate-making and develop it as an income generating activity. - In cooperation with MAI and Global Hope Network International project develop blueprint for agri-businesses to provide a source of spawn accessible to local people. - -

<p>Output 4. Prospects and possibilities for the development of Afghan organic export markets evaluated</p>	<ol style="list-style-type: none"> 1. No. of products for which the organic export market has been investigated 2. No. of foreign traders identified who are willing to import Afghan organic products 3. Organic certification regulations in place 4. No. of producers initiating the process of monitored organic agricultural practices and embarking on the process of receiving certification 5. No. and type of manuals produced 	<ul style="list-style-type: none"> - HDRA, based in UK, was engaged to conduct this study in January 2005. - They completed Phase 1 of this study in May 2005. - The report concluded that there was no insuperable barrier to the export of organic products, probably dried fruit or nuts - HDRA have investigated overseas markets and have identified 4 traders in UK who are prepared to buy organic or Fair Traded produce from Afghanistan. Raisins are the first product of choice, and apricots second - 2 HDRA consultants visited Kandahar and obtained the agreement in principle from the Dried Fruit Traders Association to participate in a pilot scheme to export 10 tonnes of organic raisins to UK. - They conducted an awareness-raising workshop with farmers, traders and Ministry and University staff. - they have produced a report giving specific steps towards the development of trade in organic dried fruit. - MAI in Kabul have instructed the Department of MAI in Kandahar to cooperate with MC, and other project participants and stakeholders to determine the institutional framework for organic certification - Pamphlets on organic techniques have been translated in Pashtu 	<ul style="list-style-type: none"> - Incorporate Kandahar Department of MAI in plans for the export of organic raisins to UK. - Initiate extension system for organic production of raisins. - Initiate system for certifying production as organic - Investigate cleaning and packing of raisins in Kandahar. - Form farmers' association for the production of organic raisins - Send people for training in organic techniques, who will form the nucleus of an extension service - Bring in an organic certifier to initiate certification process - Bring in dried fruit trader from UK to reach agreement with Kandahar counterparts and farmers association - Publish pamphlets on organic techniques that have been translated in Pashtu - Final report on the potential for organic production and export in Afghanistan - Engagement with farmers and geographic coverage will be limited due to insurgent activity
<p>Output 5. Local norms, policy and decision-making in favour of alternative livelihoods positively influenced by multi stakeholder participation including communities and institutions involved in agricultural governance.</p>	<ol style="list-style-type: none"> 1. Areas of positive social influence openly spoken and detailed by committees and residents. 	<ul style="list-style-type: none"> - A CAZS consultant who visited Helmand suggested a survey of 50 men and 50 women farmers to investigate why any of them would not grow poppy, to be carried out when the poppy harvest was over. This was deemed impossible because of security. 	<ul style="list-style-type: none"> - Within the current security situation it is not feasible for Ministry agents to be active in the field in Kandahar and Helmand - Keep consultant's recommendations under review determine action plan if the security situation improves

Project 01-08:

Innovative Financial Mechanisms for Improving the Livelihoods of Rural Afghans

Badakhshan Province

RALF PROJECT SIX MONTHLY REPORT FORMAT

Date: September 2006.

RALF Project Number: 01-08

Project Title: Innovative financial mechanisms for improving the livelihoods of rural Afghans currently economically dependent on opium poppy

Project Leader: Barry Pound

Organisation: NRI

Collaborators:

1. Aga Khan Foundation

Start Date: July 1st 2004

End Date: December 31st 2006.

Budget: US\$393,491 (NB Original budget was US\$334,491, but RALF added \$37,400 and AKF \$21600)

Progress Report

- 1.1 Review of experience in Afghanistan and elsewhere, and initial suggestion of potential financial options: *completed as planned*
- 2.1 Production of design package: *completed as planned, but superseded after October 2005 workshop*
- 2.2 Fieldwork: *livelihoods analysis fieldwork completed between months 7-10*
- 2.3 Action Plan: *Action Plan made with stakeholders at October 2005 workshop*
- 3.1 Stakeholder workshop: *Held Oct 2005 with RALF, AKF, MAI, MISFA*
- 4.1 Implementation of rural finance mechanisms: *Started April 2005 with establishment of Self-Help Groups*
- 4.2 Fieldwork in Badakhshan to test financial options: *Started April 2005 with establishment of Self-Help Groups*
- 4.3 Participatory M&E by villagers: *Villagers hold regular monthly meetings, and monitor savings and loans carefully as well as discussing progress*
- 4.4 Peer reviews of financial mechanisms by government and NGO staff: *Monitoring visit planned for Aug/Sept*
- 4.5 Documentation of outcomes: *Visit reports by NRI staff Feb 2006, monthly and quarterly reports by Field Coordinator*
- 4.6 Preparation of dissemination materials: *Outline for dissemination document completed*
- 5.1 Final Workshop: *Planned for December 2006*
- 5.2 Distribution of dissemination materials: *Planned for Dec 2006.*

During the reporting period excellent progress has been made. The Field Coordinator was recruited in January 2006, and he in turn recruited 11 field staff, who have worked extremely hard to establish 97 self-help groups for men and women in 25 villages in 2 pilot Districts. The SHGs are saving regularly, and have now started to make internal loans against this saving capital. It is anticipated that Linkage loans will be made with a formal finance institution during the next quarter. The Self Help Groups provide affordable rural credit where there was only punitive informal credit previously. They also encourage social unity, and should influence farmer's decisions away from poppy cultivation.

Management Issues (if any)

9 Self-Help Associates and 2 District Officers were recruited by the project during the project period to facilitate field operations

Research Process

The participation of the main partner, AKF, has been exemplary – providing every assistance and facility to the field staff and visiting NRI staff. Farmers have responded very positively by forming 97 Self Help Groups with their own governance rules. Savings are accumulating fast, and internal loans have been given against that savings capital, with no problems of defaulting

Planned Modifications to Project Implementation (if any)

No modifications. Project expected to be completed on schedule in December 2006. **However, it is suggested that a further evaluation of the Self-Help Group performance be made in May 2007, with additional funds.**

Dissemination Outputs

No peer reviewed outputs

Visit report: Pound, B (2006). Report on a visit to Afghanistan on behalf of the NRI/AKDN/RALF project: "Innovative financial mechanisms for improving the livelihoods of rural Afghans currently economically dependent on opium poppy" February 3-8 2006. NRI, Chatham, UK

Other Comments:

It is suggested that a further evaluation of Self-Help Group performance be made jointly by NRI/AKF/MAI in May 2007, with additional RALF funds.

Signature: Barry Pound

Date: August 2006.

Name of Leader: Barry Pound

ACHIEVEMENTS AGAINST LOGICAL FRAMEWORK

Describe progress of research towards achievement of outputs and activities given in the project logical framework using the form below.

Note any milestones completed. Note any modifications to original work plan, if milestones not achieved.

Project Outputs And Activities	Objectively Verifiable Indicators	Achievements During Reporting Period (give dates) and Comments	Planned Achievements during Next Reporting Period (give dates)
Output 1: To determine the present formal and informal financial services situation, the incidence and importance of indebtedness, financial needs and its influence on the decision to be involved in poppy production	By end of month 3: Aga Khan and MAAH staff have clear understanding of the present financial services / household needs situation in Badakhshan, and its implications for involvement in poppy production	Completed in previous year, but augmented by village surveys conducted as part of Output 2, and by Workshop in October 2005 for AKF/MAI and ICARDA staff. Also by trainings of junior staff by Project Field Coordinator during this reporting period	Monitoring of performance of Self-Help Groups by AKF, MAI and ICARDA staff – August 26-Sept 2 2006. Stakeholder Workshops in Kabul – December 13 th 2006.
1.1 Review of experience in Afghanistan and elsewhere, and initial suggestion of potential financial options	Review available by end month 2	Review completed in previous year	Completed as planned
Output 2 To identify and design a range of potential financial mechanisms for the provision of micro-finance and other financial products and services appropriate to rural Afghans, using experience from Afghanistan and elsewhere	By end month 6: At least 3 potential financial service options identified for testing with Aga Khan Foundation A design package is produced detailing the specific terms and conditions of selected financial products and services.	The financial mechanisms have been defined as Savings, Internal Group Loans and Linkage Loans, which all form components of the Self-Help Group model being tested	Further modification of the design (e.g. introduction of dedicated software package to deal with accounting) may be introduced as needs arise during testing
2.1 Production of design package	Design package available by month 6	Available	Will continue to be adapted in the light of experience
2.2 Fieldwork	Fieldwork by month 4	Fieldwork done between months 7-10	Full participation of in-country partner and of intended beneficiaries
2.3 Preparation of Action Plan	Action Plan in place by month 7	Preliminary action plan in place by month 9 (and monitored in Sept 2006 visit)	This action plan has been updated during the Stakeholder meeting in October 2005, and September 2006 visit, and will continue to be updated up to the end of the project
Output 3 To produce an action plan for implementation of chosen financial mechanisms on a pilot basis in Badakhshan	By end of month 7: Action Plan in place for the application of options in Badakhshan	Stakeholder workshop held at month 15 leading to action plan	Participation of AKF, RALF, MAAHF, MISFA, ARMP
3.1 Stakeholder workshop	Stakeholder workshop by month 7	Stakeholder workshop held at month 15	Participation of AKF, RALF, MAAHF, MISFA, ARMP

<p>Output 4: To use participatory methods involving communities, NGO and government staff to rigorously monitor, evaluate and document the process and impact of implementation of chosen financial mechanisms</p>	<p>Government and NGO staff have joint understanding of lessons learned (successes and failures) from assessment activities</p> <p>Documentation of process and outcomes available in government and NGO offices</p>	<p>This started during the reporting period with the recruitment of Field Coordinator, District officers, Village Social Organisers and establishment of Self Help Groups with leaders. All SHG members have savings and loan books to monitor savings and loan transactions. Regular monthly visits are made.</p>	<p>Monitoring visit (to include workshop with SHG leaders) planned for Aug 26-Sept2 2006.</p>
<p>4.1 Implementation of alternative rural finance mechanisms</p>	<p>Training plan, modular description of prioritised alternative rural finance mechanisms.</p>	<p>District and Village staff trained, training of SHGs in savings and internal loans completed</p>	<p>Further training of SHG in Linkage loans to be done in Sept/Oct</p>
<p>4.2 Fieldwork in Badakhshan to test implement financial options</p>	<p>Fieldwork held by month 8 or 9</p>	<p>97 SHGs established and operating. Savings of >150 Afs per member per month. .1600 members total. Savings nearly 1million Afs. All savings available for internal loans to members</p>	<p>Linkage loans to be available to SHG members from mid September 2006.</p>
<p>4.3 Facilitation of participatory monitoring and evaluation of financial mechanisms by villagers</p>	<p>Visits for monitoring and evaluation purposes by month 13, 19 and 23</p>	<p>Participatory M&E of financial mechanisms started in July 2006.</p>	<p>Workshops planned for September and December 2006</p>
<p>4.4 Peer reviews of efficacy of financial mechanisms by government and NGO staff</p>	<p>Peer review workshops held by month 23</p>	<p>Forum to discuss interest rates implemented successfully in May 2006. New activity</p>	<p>Peer review tour to include RALF and MAI planned for September 2006.</p> <p>Evaluation workshop to include MAI, RALF, donors, microfinance institutions and NGOs planned for Dec 2006.</p>
<p>4.5 Documentation of monitoring and evaluation processes and of outcomes</p>	<p>Documentation of process and outcomes available by months 15, 21 and 24</p>	<p>Documentation continuous from Year 1 of project through to end of project (visit reports, design packages, workshop proceedings)</p>	<p>Documentation continues</p>
<p>4.6 Preparation and production of dissemination materials for different audiences</p>	<p>Draft dissemination materials available by month 25</p>	<p>Documentation started in August (month 25) as planned</p>	
<p>Output 5 To disseminate experiences as they emerge using user-friendly formats and media, so that the lessons from successes and failures can be rapidly incorporated into government and NGO policies and programmes</p>	<p>From month 9 of project:</p> <p>Appropriate dissemination materials available with different stakeholder audiences across Afghanistan</p> <p>From year 2 Government rural finance policy includes outcomes from project NGOs using project outcomes in their programmes</p>	<p>Government rural policy influenced by outcomes of Rural Microfinance Forum held May 2006.</p> <p>Dissemination started with the mobilisation and awareness raising of the microfinance programme in project villages in April 2006</p>	<p>Booklet outlining experience of project to be available by Dec 2006</p>

5.1 Final workshop	Dissemination and discussion of results with stakeholders Month 27		To be held in Dec 2006
5.2 Distribution of dissemination materials to different audiences	Dissemination complete by end of project	Outline of dissemination materials available	

Annexure – 1

Microfinance Services and Service Charges in Afghanistan

Summary Proceedings of the RALF Forum on Microfinance

The microfinance (MF) sector in Afghanistan is diverse. Key players include

- Sectoral promoters like the Microfinance Investment Support Facility Afghanistan (MISFA);
- private and non-profit MF organisations such as the Afghanistan Rural Microcredit Programme (ARMP), BRAC, ACTED/OXUS;
- banks such as the First Microfinance Bank of Afghanistan (FMBA);
- enabling organisations like WOCCU and the Aga Khan Foundation's (AKF) Self Help Project;
- membership based organisations like credit unions and self help groups;
- individual lenders and shop keepers.

The one-day Microfinance Forum was convened by AKF, NRI and ICARDA under the auspices of the RALF programme. It aimed to address the concerns raised by Ministry of Agriculture officials that the agriculture sector is inadequately covered by microfinance services and that service charges for agricultural loans were widely perceived as unaffordable. About 30 officials from the Ministry of Agriculture, including the Deputy Minister participated in the Forum. Representatives from various microfinance organisations exchanged information on a wide range of MF services and loan products tailored to the needs of both rural and urban Afghan people. It was found that most loan products available today range between 5,000 and 50,000 Afghanis (AFS), though there are a few loan types which offer higher amounts. The loan service charges range between 1.5% and 3.33% per month on a flat-rate basis. A conversion to simple interest rates stands over and above 36% per annum, excluding entry fees and fines for defaulters.

The participants from the ministry see at this stage the sector does not have adequate coverage of rural families under their services apart from the charges being felt to be very high. However the Micro-finance (MF) organisations have reasons to believe that these charges are necessary to build up sustainability in their MF systems. Also the MF organisations perceive the agricultural crop loans to be risky and need to have some backups for a larger agricultural credit programme.

The government officials were also of the view that there are too few or inadequate efforts to build up community based microfinance systems such as cooperatives and self help groups. They expressed that building up community based systems, introducing savings, creating revolving funds, may be a solution to solve the high cost of operations in microfinance loans. The views sharply differ between the officials and the microfinance operators. The event was of importance to understand the differing perceptions and realities in microfinance in the present stage of microfinance development in Afghanistan.

The Forum facilitated an open exchange of ideas with the objectives to increase the understanding on various MF programmes and players. This Forum will be followed up and will aim to facilitate the development of a national policy for agricultural credit provision in Afghanistan.

Annexure – 2

Land Mortgages in Badakshan

Background

Mortgaging ones' own land with a lender for raising money seems to be an accepted practice in many parts of Badakshan. Through oral or written agreement, the land owner and the lender enters into an agreement for a set period. To understand the extent of such practice, a survey has been undertaken in Jhurm and Ishkhashim district. The survey was conducted during May-June'06 among those who joined the self help groups formed by AKF. Hence there may be some additional households that were not covered.

Jhurm is an agricultural district considered to be one of the most fertile areas in Badakshan. It is a thriving agricultural area where food crops and cash crops (poppy) are grown by the farmers. Ishkhashim is said to be one of the poorer districts in Badakshan. Most farmers are subsistence farmers with small holding that are insufficient to feed their own families.

Transactions on Land

Land is an important livelihood asset and land based activity remains to be a prime source of livelihood and sustenance for most households. Loosing of land at times considered to be a biggest loss for the families who might perpetually trapped into poverty. Transactions on land are said to be common, many households mortgage, sell and buy pieces of lands. The processes of mortgages are simple: the land is taken from the original owner for a sum by the lender and remains as long as mortgagee returns the money. During the time of the mortgage the lender uses the land for agricultural operations and makes his gain.

Land mortgages

Data was collected from 1000 families joined in 63 SHGs. The following table provides the summary of the results:

Summary of Details	Ishkhashim	Jhurm
Villages covered	15	5
Groups surveyed for land mortgage	48	15
Families surveyed	737	285
Families mortgaged their lands	25	35
%ge of families under mortgages	3.3%	12.2%
Average area of land mortgaged in Jheribs	3.46	Na
Average value of the mortgage	35,250	50,000

na- not available 1 Jherib=1/5 of ha.

Jhurm has a wide variation in the values of mortgages. Value of mortgage is comparatively high in Jhurm due to high prices of land. Most families have reported the following reasons for mortgage of their lands:

- Meeting household needs and expenses like marriages and ceremonies
- Clearing of past debts that is accumulated over a period of time
- Meeting major health expenses of family members

Many families claim that they will get back their lands when there is good revenue from their remaining lands or cattle. It is not known how much of these mortgages are redeemed. But it is those who have any other lands or cattle lose out their lands altogether by selling their lands ultimately.

Annexure – 3

Summary of Visits to Microcredit Organisations in Afghanistan

BRAC, (Bangladesh Rural Advancement Committee) forms village organisations in the identified project villages and use them as a platform to provide their microfinance services. They follow the similar pattern of organising of their work as in Bangladesh and there are no great variations in their design. Currently, their operations are mostly related to providing small loans (of Af 5000 repayable in 47 weekly instalments with a service charge of 17.5 % flat rate) to majority of their members. BRAC also have a bigger loan scheme under their small and micro-enterprise activities in urban areas. The demand for credit is said to be growing and most of their operations are expanded fast as per their original estimates and forecasts.

ACTED, a relief and development organisation has started a formal credit programme in the recent months. The Microcredit programme is in its early stage and done through the subsidiary called OXUS International and OXUS Afghanistan. The pilot project is in operation in the Shamali plains area, that includes the four districts: Kabul outskirts, Qurahaget, Charekar (in Parwan), Fariab (in Maimana) are taken for the project. At the end of January 2006, the outreach is less than 1000 clients with a small loan programme is implemented that provides loans upto 160 USD (8,000 Af). Most of the 'customers' are small traders and hawkers doing business in the city or markets. The loan has a service charge of 2% per month charged on flat rate basis and recovery is done on a monthly basis.

WOCCU, (World Council for Cooperative Credit Unions) the international cooperative promotion organisation has promoted two savings and credit cooperative unions in North West Afghanistan in the last eighteen months. They are in Balkh and Jawsjhan provinces with their offices in Masar-e-Sharif and Shibergaon cities. These cooperatives are modelled based on classical cooperative principles and growing fast. At the end of January 2006, The Balkh union at Masar-e-Sharif enrolled around 1934 members and Jawsjhan union based at Shibergaon enrolled 1163 members. These unions together have provided a cumulative loan of around Af 28.06 Millions and mobilised a savings of around Af 7.2 Millions. The notable achievements of these unions are that tapping of substantial savings from their members and utilising for loans. Also the unions are modelled to be local managed organisations with members' participation in decision making and growth. The role of WOCCU is said to be a promoter rather than a Microcredit organisation.

ARMP, (Afghanistan Rural Microcredit Programme), one of the large micro credit organisations has its branches in many parts of the country. The programme provides mostly individual loans to traders and farmers in the areas chosen to work. Most loans are related to business development (including small and large), agriculture / animal husbandry loans, and loans for all other economic purposes. Also some of their popular loans relevant to rural areas include micro leasing and agricultural trade loans. ARMP also has credit activities to relieve poppy cultivating farmers from their debts with the traders. Group loans are said to be provided for a small number of groups however, the terms are more or less similar to individual loans. At the end of January 2006, ARMP has disbursed around Af 15.7 Millions to a cumulative number of 22,000 loanees since its inception. For most of their loans, their service charge varies from 1.25 % to 2% charged on a flat rate basis, with an additional arrangement fees. While most loans and service charges are monthly repayable, however some of their portfolio dealing with agriculture and livestock have a moratorium period for their principal.

Annexure – 4

Training Programme on Promotion of Self Help Groups For Self Help Associates Jhurum, Badakhshan – Afghanistan 12-15 April 2006 Community Based Self Help Programme, Agha Khan Foundation (AKF)

The First Training programme for the staff selected for Self Help Programme was completed successfully in Jhurum, Badakhshan. Of the 11 selected candidates to join the project ten have joined. The training programme was designed for four days, 12-15, April, 2006. Each of the staff is given reading materials in Dari for the course.

The first module is on Group formation. This included the following:

- Group dynamics
- Introduction to Savings and Credit
- Basic mathematics of recording Savings and Credit
- Calculating service charges and savings collections.

The methods used were a mix of

- lectures,
- group discussions,
- games & role plays and
- mock drills.

On the whole it is satisfying that the participants showed a lot of enthusiasm and participated actively. They were also charged and promised to work sincerely and collectively to make the project a success. The staff had also chances of listening to Regional Program Manager of AKF and chief of Focus Humanitarian Assistance and DJI, Badakhshan.

The participants also listened to the staff working in other programs of AKF in the area. This information will be of use to them to integrate their activities with other ongoing works in the villages.

It is generally found that the staffs are highly motivated and ready to do hard work. They are curious to learn about the subject and try their best. However, there are concerns remain about their skills in understanding simple mathematics. This is required to calculate the percentages and prepare necessary accounting formats at the group and member level. It will be a challenge to train them in book keeping and accounts without a proper full time trained and specialist accountant.

TRAINING PROGRAMME ON PROMOTION OF SELF HELP GROUPS

Venue: Jhurum Date: 12-14 April 2006

Training methods

1. Lectures and Presentations
2. Question – Answer Sessions
3. Games and Role Plays

Day 1: 12 April 2006

Session 1 Introduction to Community Based Self Help Programme

Film on Effective Linkages

Session 2 Promotion of Self Help Groups (SHGs)

Session 3 Process of Development of SHGs

Day 2: 13 April 2006

Session 4 Membership in SHGs

Session 5 Bye Law of Self Help Group

Film on Self Help Groups in Urban Areas

Session 6 Savings

Session 7 Simple mathematics: Calculating Percentages, Use of Calculator.

Day 3: 14 April 2006

Session 8 Credit and Recovery

Session 9 Group Meetings

Session 10 Accounts Keeping and Calculation of Service Charges

Session 11 Leadership

Day 4: 15 April 2006

Session 12 Group Meeting and Recording (Mock Drill)

Session 13 Records and Book keeping

Session 14 Action Plan

- Introduction to Selected Villages
- Developing An Action Plan for staff

Project 01-11:

Improved Rural Incomes from Better Forage Production and Sales for Milk Products

Baghlan

Date: 30 June, 2006

RALF Project Number: RALF01-11

Project Title: Improved rural incomes from better forage production and sales of milk products

Project Leader: Asamoah Larbi

Organisation: International Center for Agricultural Research in the Dry Areas (ICARDA)
P. O. Box 5466, Aleppo, Syria

Collaborators:

- Aga Khan Foundation – Afghanistan (AKF)
- Ministry of Agriculture, Animal Husbandry and Food (MAAHF)
- Macaulay Research Consultancy Services Ltd. (MRCS)

Start Date: 1 June 2004

End Date: 31 January 2007

Budget: US\$ 399,760

Progress Report

Provide a concise report on achievements for each activity against the logical framework (attached)

Output	Major Achievements during the period
1	<p>Partnerships for out- and up-scaling of fodder innovations were established.</p> <p>1.1 Four farmers' associations were established in four villages to facilitate the dissemination of project outputs. Women are responsible for day-to-day management of milking cows, and processing and marketing of milk and milk products. Therefore, wives of members of the various associations are being encouraged to form Women Interest Groups (WIG) to facilitate working with women and to enhance the dissemination of improved milk processing and marketing technologies. The creation establishment of farmers' associations increases the likelihood of uptake of the technologies and other products of the project.</p> <p>1.2 The closer partnerships established with farmers, MAAHF, AKF and University of Baghlan continued to yield fruits with all partners participating in implementation of project activities. For example, MAAHF provided office space and land for on-station replicated trials to evaluate new forage varieties, and also assigned an agronomist and research assistants to assist with on-farm and on-station data collection. The partnerships yielded significant social capital as demonstrated by the enthusiasm shown by stakeholders, especially representatives of the farmers' associations at the participatory workshops and farmers' field days. This will facilitate achievement of the project outputs.</p>
2	<p>Improved fodder crops and management options were demonstrated.</p> <p>2.1 High yielding fodder crop cultivars/lines were identified from varietal and demonstration trials on-station.</p> <p>Replicated, varietal trials (14 alfalfa, 9 clover, 4 grasspea, 3 common vetch, 3 narbon vetch, and 2 oat varieties) were harvested. Data were analyzed and summarized in graphs.</p> <p>Fodder yield varied significantly among the clover (<i>Trifolium</i>) species (Fig. 1). Two species (<i>T. purpureum</i> and <i>T. scabrum</i>) persisted after four cuts. Discussions during a field days showed that farmers preferred the persistent species, so seeds of the two species are being multiplied for distribution to interested farmers.</p> <p>Variations in fodder yield of mixtures of early- and late-maturing oats and 10 clovers were significant (Fig. 2). Mixtures with late-maturing oats had significantly higher yield than those with early-maturing oats (4083 vs. 3450 kg/ha; s.e. = 171.1). Based on</p>

	<p>average yield from the two cuts, oats planted in association with <i>T. herleri</i>, <i>T. purpureum</i> and <i>T. alexandrium</i> cv Agaiti were the most promising.</p> <p>Fodder yield varied significantly among the alfalfa varieties (Fig. 3). The new varieties gave higher yields than the local variety. Varieties CUF, Prime, Aleppo-54, Vendor and Aleppo-597 were among the promising varieties based on the average yield from two cuts.</p> <p>There were significant variations among the lines of grasspea (<i>Lathyrus sativus</i>), narbon vetch (<i>Vicia narbonensis</i>) and common vetch (<i>Vicia sativa</i>) in fodder yield at 50% flowering (Fig 4a), and yields of grain and straw at maturity (Fig. 4b). Average fodder yield of the grasspea lines (7733 kg/ha) was significantly higher than the vetches -narbon (5555 kg/ha) and common (6044 kg/ha). Straw and grain yields of the grasspea lines were relatively higher than the narbon and common vetches. Similarly, straw and grain yields of common vetch line 2604 (2240 and 1526 kg/ha) were significantly higher than the local variety (1583 and 1030 kg/ha). Grasspea lines 476 and 445 and common vetch line 2604 were among the most promising.</p> <p><i>2.2 Best-bet fodder production practices were demonstrated on-farm, and farmers' perceptions about the options were recorded.</i></p> <p>Seeds of different forage crops (alfalfa, 77 kg; berseem, 45 kg; oats, 6.5 kg) and inorganic fertilizer (930 kg of di-ammonium phosphate and 10 kg urea) were distributed to 75 households in 5 villages for participatory testing and demonstration of the effects of different management options (seeding rate, manure and phosphate fertilizer application rates; and weed control) on fodder yield of alfalfa and berseem. Current farmers' practices were included as controls.</p> <p>There were no significant differences in fodder yields between seeding rates of 35 and 45 kg/ha for both crops (Fig. 5 a). Manuring at 6 and 9 t/ha produced significantly more fodder than at 3 t/ha (Fig. 5b). Phosphate fertilizer applied at 100 and 200 kg/ha produced significantly higher fodder than a rate of 50 t/ha (Fig. 5c). Applying manure alone at 3t/ha resulted in significantly lower fodder yield than when the same amount of manure was combined with phosphate fertilizer at 50 and 100 t/ha (Fig. 6a). Hand-weeding of alfalfa and berseem plots resulted in significantly higher fodder yield than no weeding (Fig. 6 b).</p> <p>Variations in fodder yield of sorghum varieties planted during the summer period of 2005 were significant (Fig. 7). No data was obtained from the cowpea and soybean varietal trials due to poor establishment. The sorghum and cowpea trial were replanted in April 2006.</p> <p>Most farmers preferred the 35 kg/ha seeding rate to their current practice of 45 kg/ha because they could cut down seeding cost. They also preferred applying higher rates of manure and/or manure in combination with phosphate fertilizer to their alfalfa and berseem plots. Because, such management practices result in better establishment, lower weed density, higher fodder yields, and potentially more milk off-take when the fodder is eventually fed to milking cows. <i>Ex poste</i> economic impact analysis may be needed to quantify the potential economic impact of the management practices on household income.</p>
3	<p><i>Feeding systems to improve milk production and quality were demonstrated.</i></p> <p><i>3.1. Participatory workshops to document indigenous knowledge on feed resources and feeding systems for milk production continued.</i></p> <p>Farmers' perceptions on locally available protein-rich supplements were recorded. They preferred cotton seed cake to flax cake because cows fed cotton seed cake produced more milk than those fed flash cake. This could be possibly due to higher intake of</p>

	<p>digestible dry matter. They observed that the feed value of cotton seed cake in terms of milk off-take is influenced by the method of processing. Alfalfa hay was preferred to berseem and mung bean hays, because, cows fed alfalfa hay produced more milk than the others. As a result, most farmers expressed interested in planting high-yielding alfalfa varieties to feed their milking cows, and/or for sale to generate income, based on availability of quality seed and land. This observation implies that farmer adoption of the higher-yielding alfalfa varieties identified from the on-station trials (Fig. 3) could increase milk off-take and income from sales of milk and dairy products.</p> <p><i>3.2 Feeding and health management systems to improve milk yield and quality were tested on-farm.</i></p> <p>An adaptive research to demonstrate the effect of supplementing cows fed a basal diet of cereal straw with different levels (1 – 3 kg per head per day) of locally available protein-rich supplements on milk off-take was completed. It involved 54 interested households in 8 villages. The farmers were trained in feeding management and milk recording. Locally available protein supplements were purchased and distributed to the households - cotton seed cake (2205 kg), flax cake (2205 kg), alfalfa (3450 kg), mung bean (3450 kg) and berseem (3776 kg) hay. Farmers fed the supplements to their milking cows and recorded daily milk off-take. The potential economic impact of supplementation on livelihoods was discussed at participatory workshops and field days.</p> <p>Both participating and non-participating farmers were interested in supplementing basal diets with protein-rich feedstuffs. Because, they perceived supplementation as a better management option to increase: voluntary intake of cereal straw diets, milk off-take, and the quantity and quality of milk products. Since sales from milk and dairy products contribute 20-30% of household income, the increase in milk off-take, and quality and quantity of milk products resulting from supplementation could translate into increased household income.</p>
4	<p><i>Constraints to adding-value to milk and milk products documented</i></p> <p>Two women project assistants were recruited. They are interacting with wives of the association members to establish Women Interest Groups (WIGs) to facilitate dissemination of improved technologies for milk processing and marketing. A survey on marketing of milk and dairy products led by the Macaulay Institute was completed. Data are being processed.</p>
5	<p><i>Ex-ante impact assessment of fodder innovation options initiated</i></p> <p>5.1 Participatory workshops and consultation with communities to document farmers' perceptions on selected fodder innovations and feeding systems, and their potential impact on milk production and household income and livelihoods continued.</p>
6	<p><i>Skills of stakeholders were up-graded improved through knowledge exchange</i></p> <p>6.1 Fodder production and dairy cow management skills of participating and non-participating households were upgraded through on-farm and on-station demonstrations and participatory workshops.</p> <p>6.2 Institutional capacity of the Faculty of Agriculture, Baghlan University was improved through the use of the project's on-station fodder experiment for student training. MAAH staff attached to the project developed their skills through interaction with the project staff and visitors. It is hoped that the interaction will enable MAAH staff in Baghlan Province to acquire skills in fodder research.</p>

Management Issues (if any)

Provide an update on issues arising during the reporting period (e.g. personnel changes, financial resources etc.) which have influenced progress in project implementation.

- Four milk producers association were established in four villages to facilitate dissemination of improved fodder production, feeding and health management of milking cows. Wives of association members are being encouraged to establish Women Interest Group (WIG) for the dissemination of milk processing and marketing technologies. This will ensure gender equity in the implementation of the project.
- Progress on implementation of the milk processing component of the project has been slow because: a consultant could not visit the project sites due to security concerns, and difficulties with recruiting female project assistants to interact with women who are responsible for the day-to-day management of milking cows, and processing and marketing of milk and milk products. The recent recruitment of two female project assistants may facilitate implementation of this component of the project.
- An Afghan Assistant Project Coordinator with expertise in animal production was hired. This has facilitated the implementation of the livestock activities.

Research Process

Comment on participation and involvement of collaborators, target institutions and farmers during research and reporting process (where appropriate).

MAAHF in Baghlan Province, AKF, Macaulay, ICARDA and farming communities in Dahan Ghori, Puli-Khumri and Baghlan districts) were involved in the implementation of the project activities. The Macaulay Institute and AKF completed a marketing survey on milk and milk products.

Planned Modifications to Project Implementation (if any)

Give details of any planned modifications to activities, outputs, logical framework, work plan etc. which have been made during the reporting period, with agreement of Programme Coordinator. This may include recommendations for remedial actions and improvements to the project logical framework needed to reflect review findings. If the project work plan and milestones have been modified significantly, attach a copy of the revised work plan.

- No significant modification was made during the reporting period.

Dissemination Outputs

For the reporting period, provide details of peer-reviewed publications (only when actually published), other publications not peer-reviewed, and other project outputs completed and distributed.

- No output has been produced to date.

Other Comments/Responses to Points for Clarification:

MAAHF provided office space and land, and assigned staff to the project to assist with data collection (See Section 1). Late planting resulted in poor establishment of the Sainfoin on-farm, and the cowpea and soybean on-station. Fig. 7 shows the results of the sorghum trial. The 54 farmers received seeds of fodder crops and inorganic fertilizer for the establishment of demonstration trials to compare fodder production options with farmer practices (See Section 2.2). The expectations from farmers and the outcome of the feeding trials are outlined in Section 3.2.

The project was delayed for 6 months. A no-cost extension for a minimum of 6 months could therefore be useful.

Signature: 

Date: June 30, 2006

Name of Leader: Asamoah Larbi.

Fig. 1. Fodder yield of *Trifolium* varieties, on-station

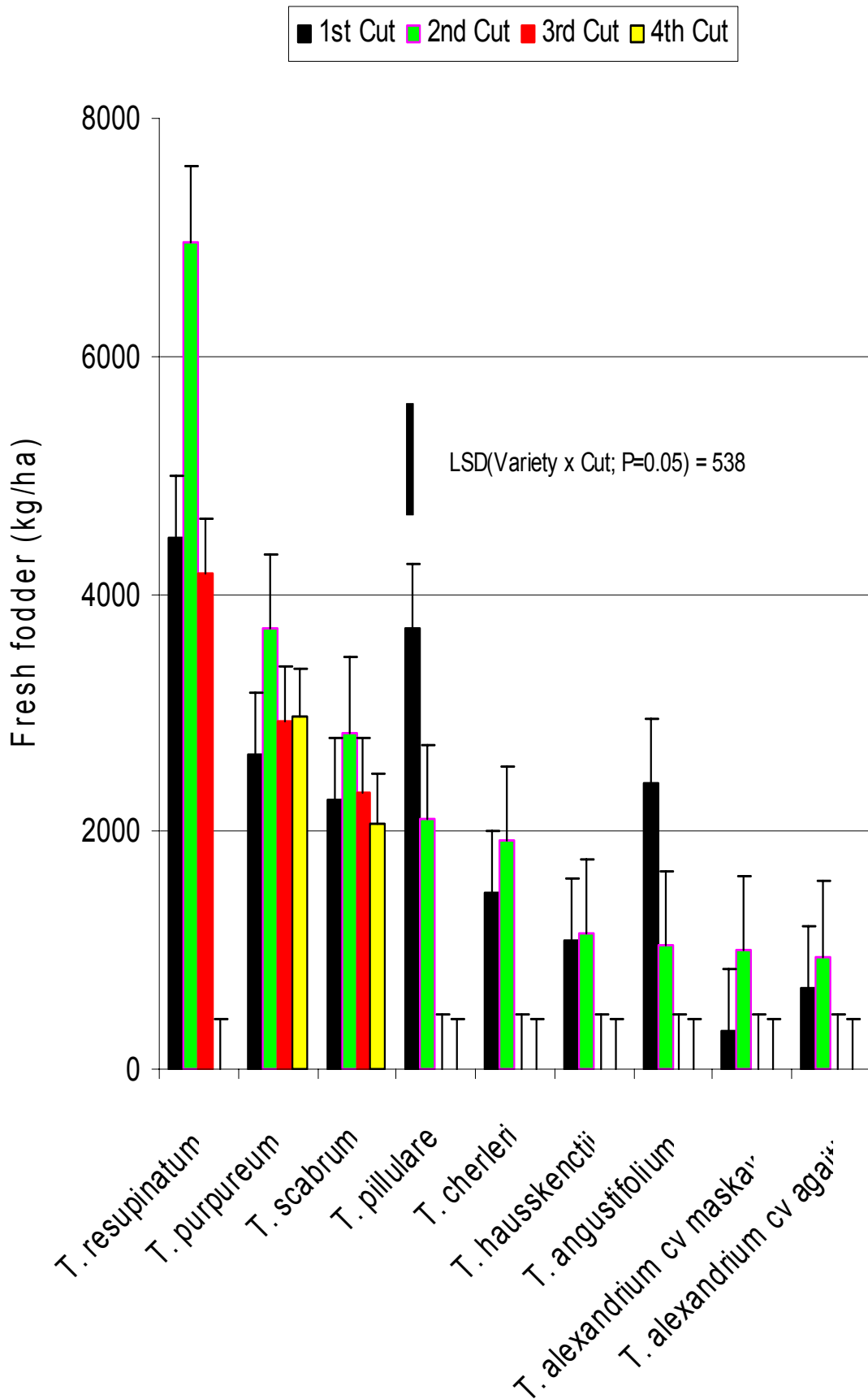


Fig. 2. Fodder yield of Trifolium-Oat mixtures, on-station

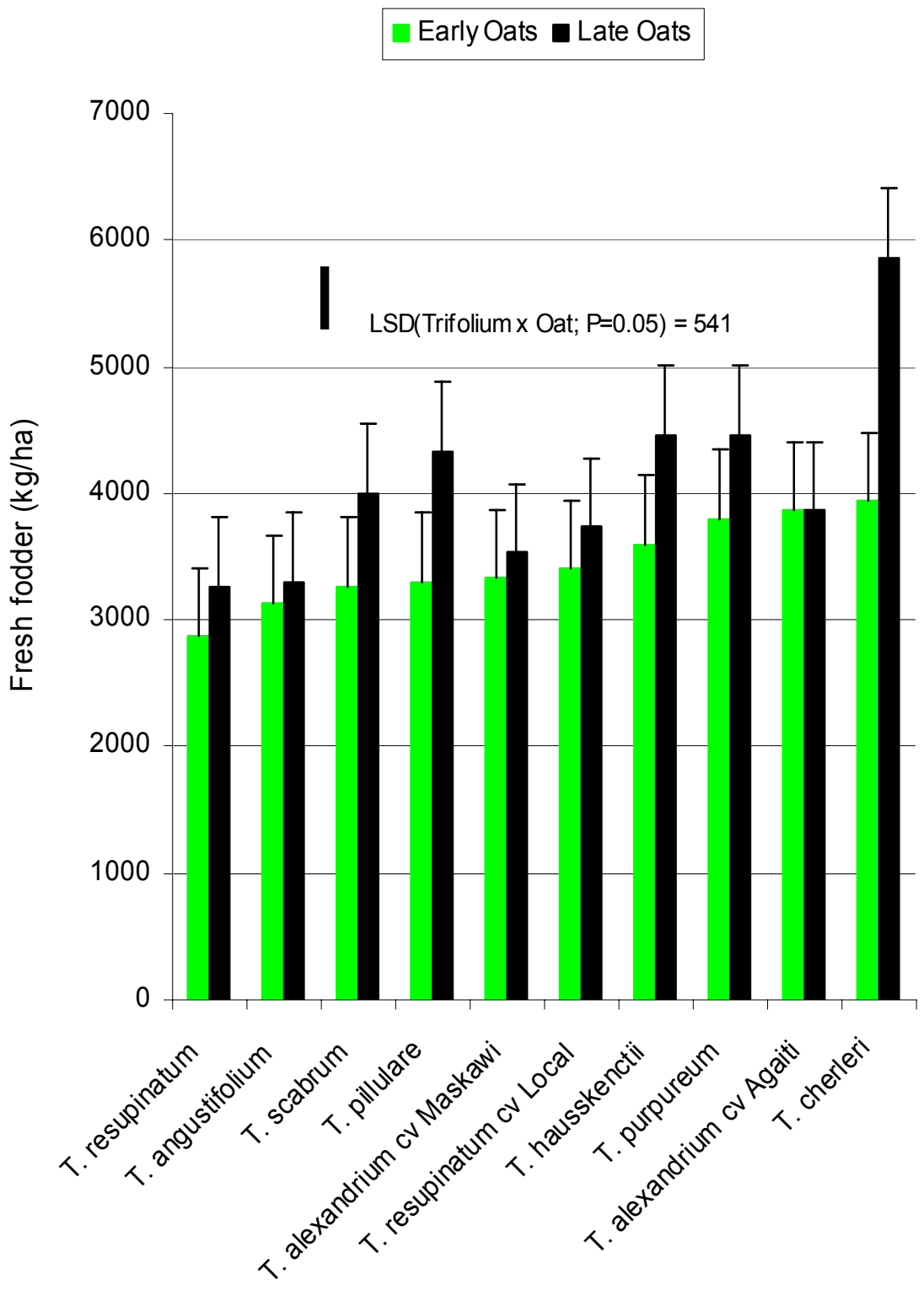
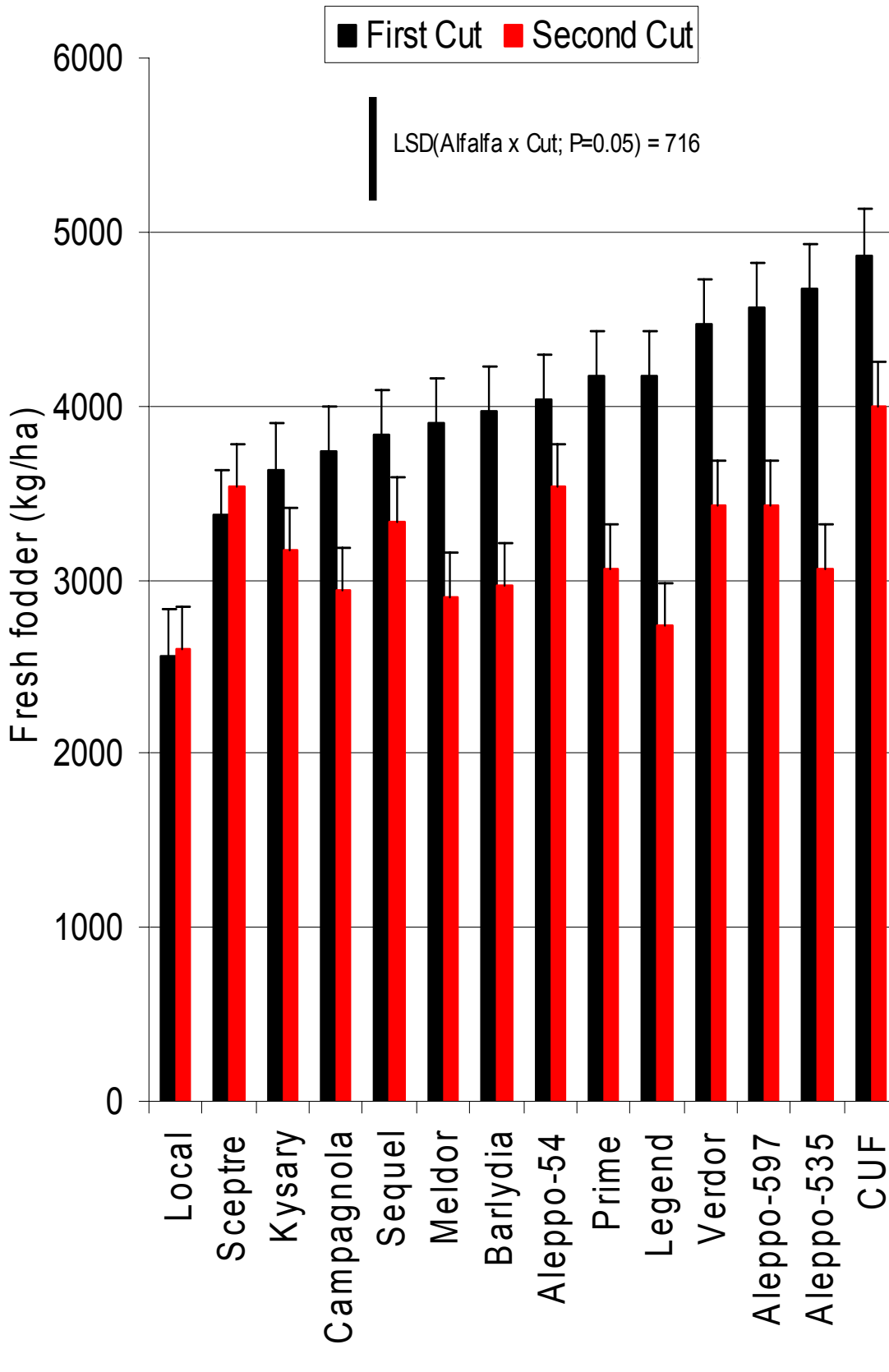
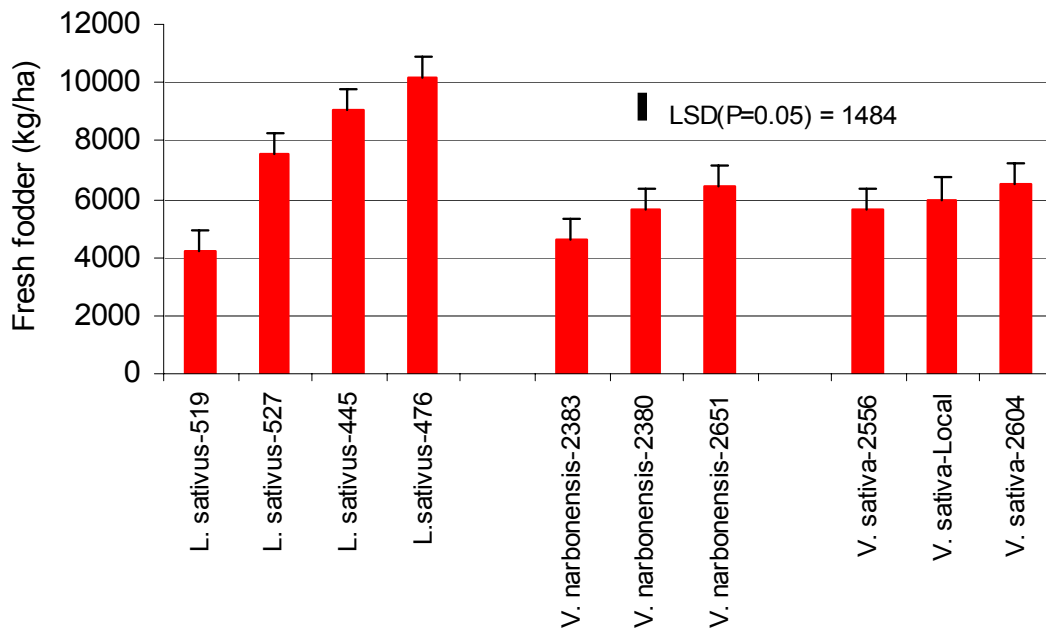


Fig. 3. Green fodder yield of alfalfa varieties, on-station

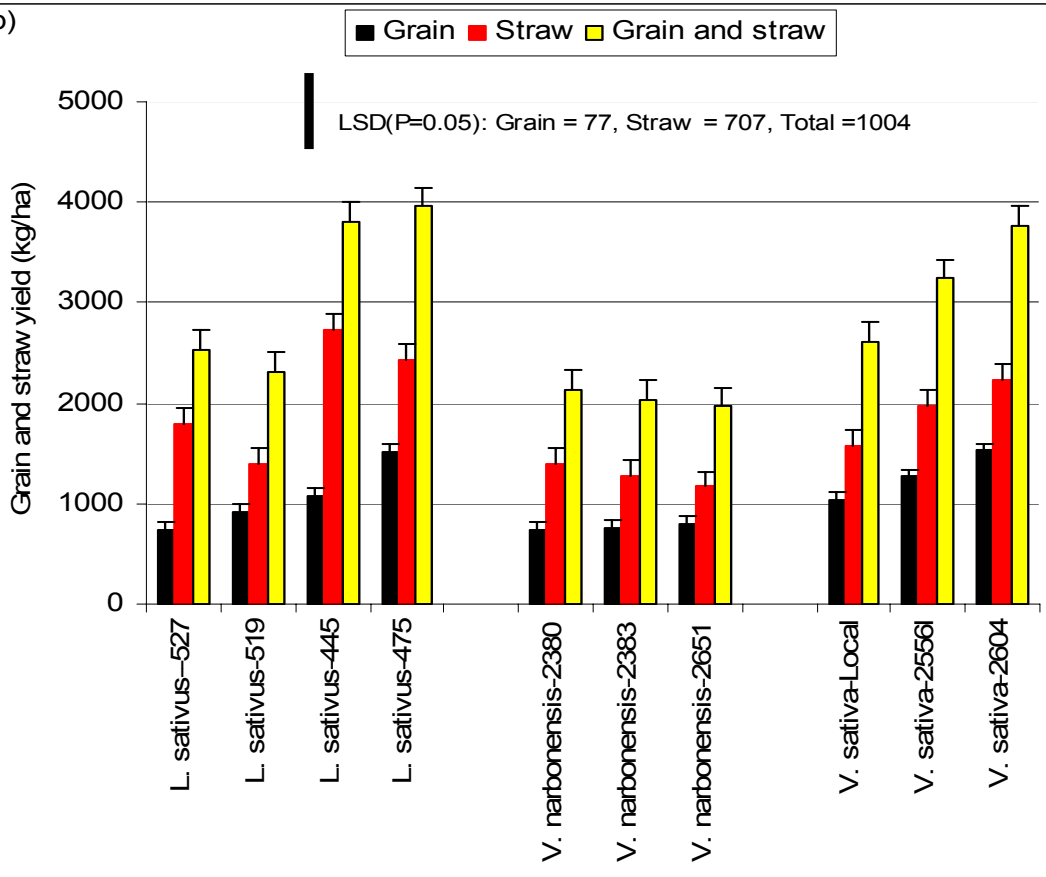


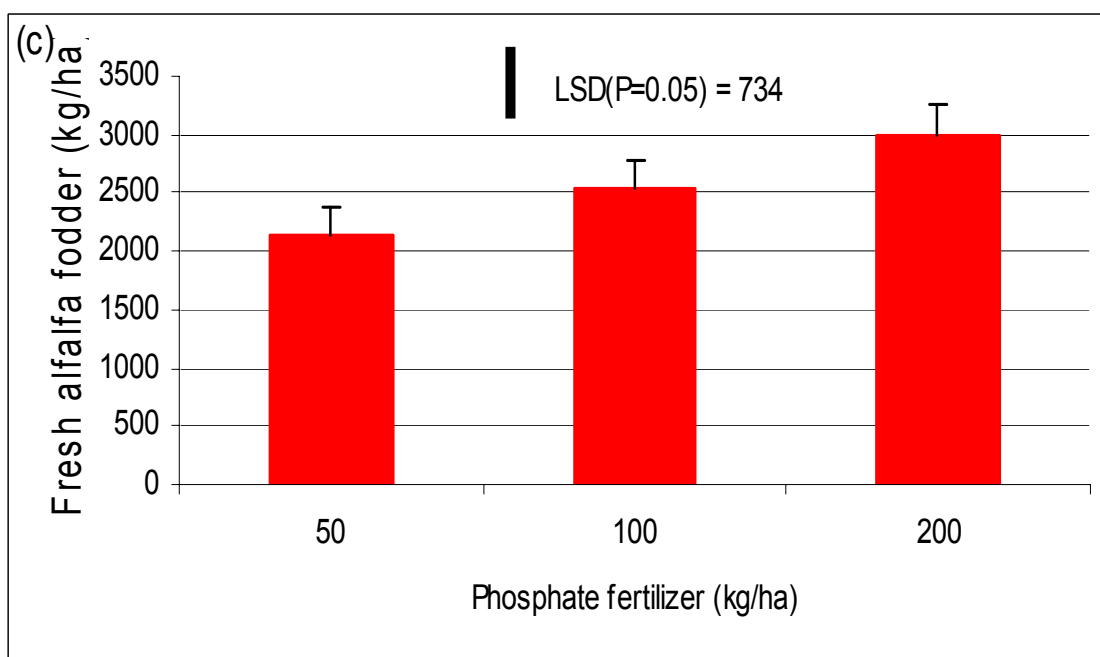
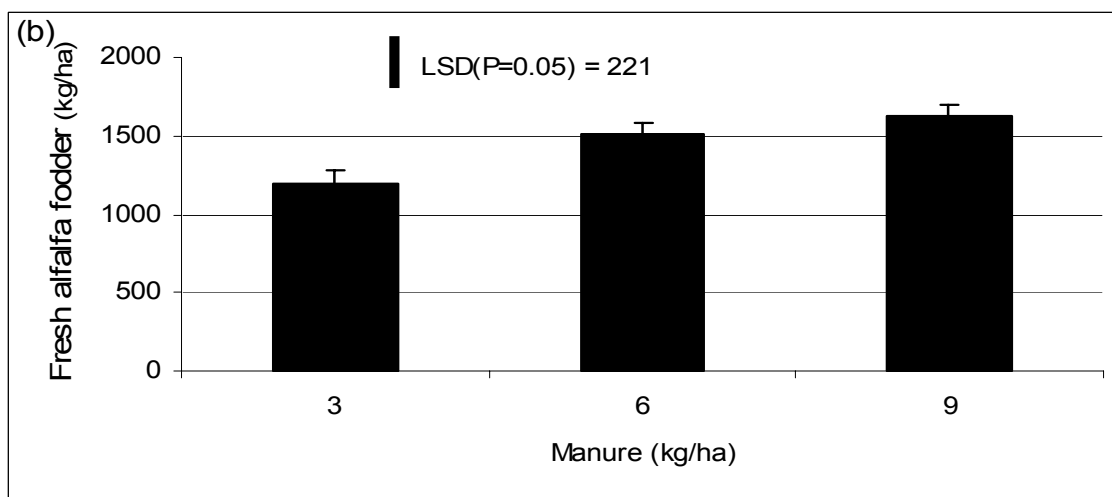
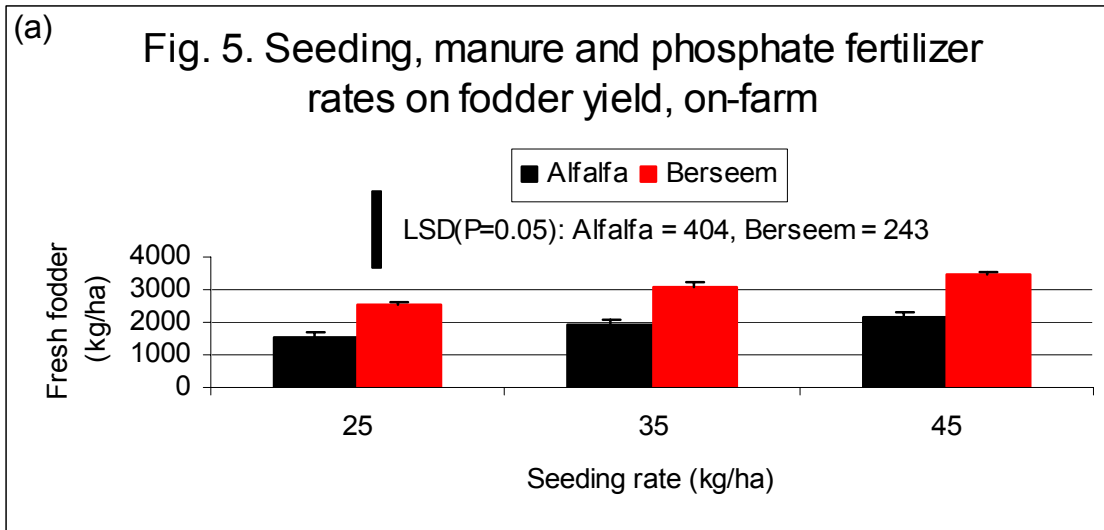
(a)

Fig. 4. Fodder, straw and grain yields of Lathyrus and Vicia lines, on-station



(b)





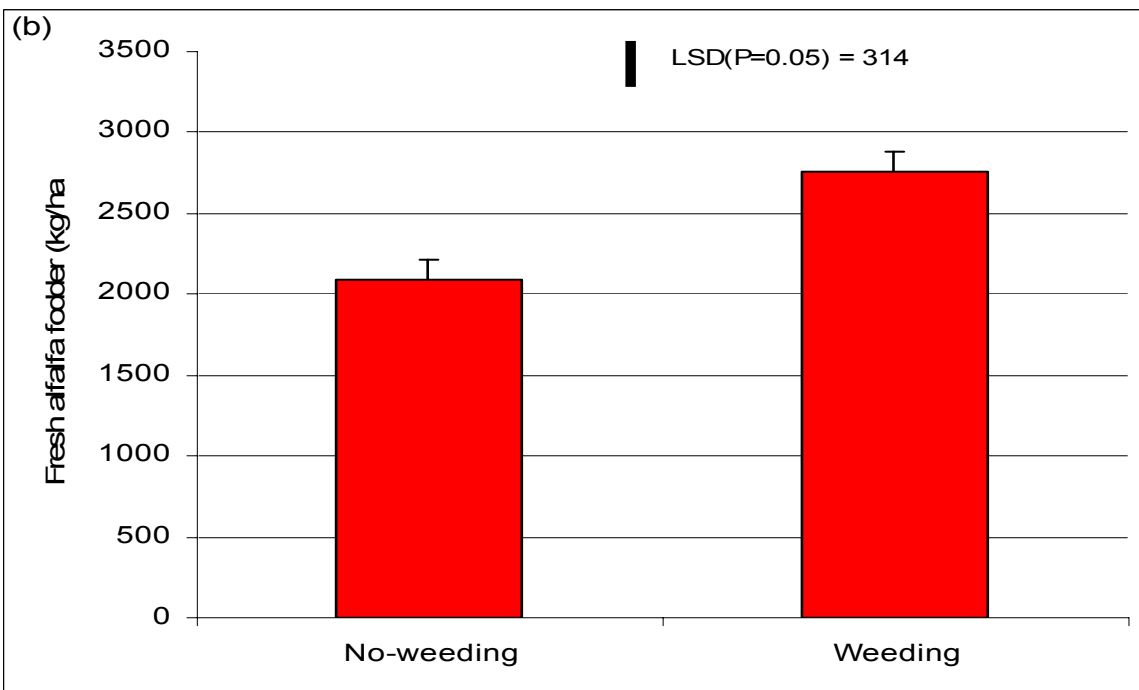
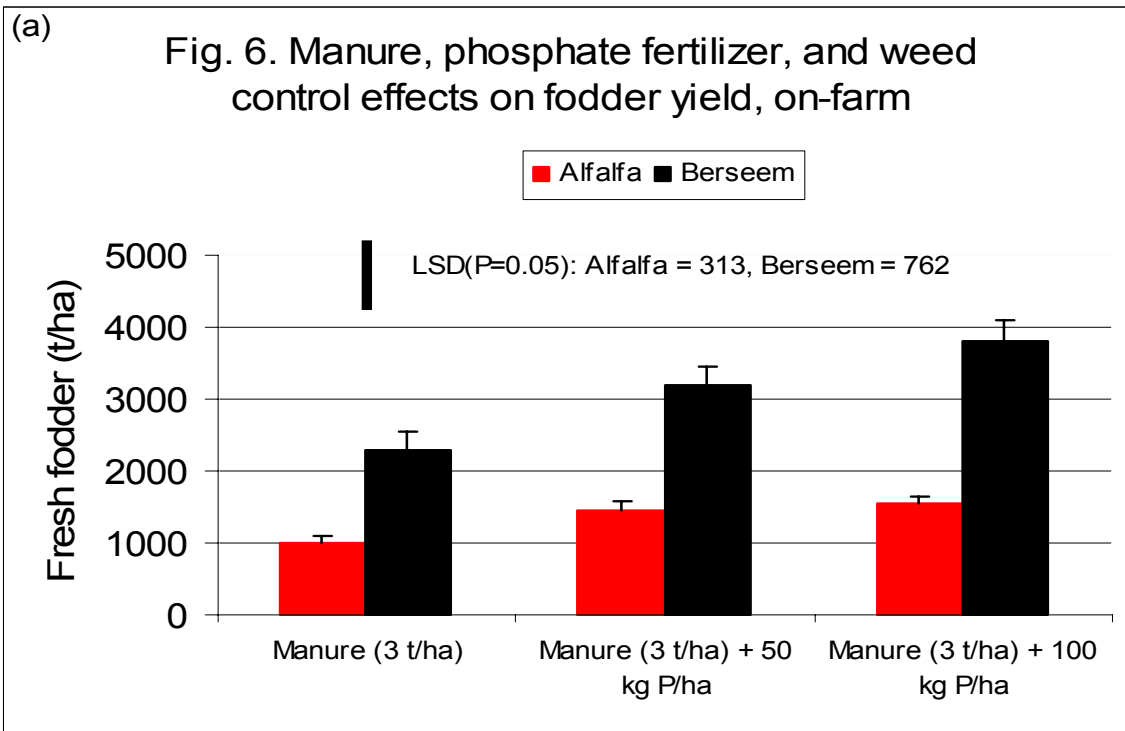
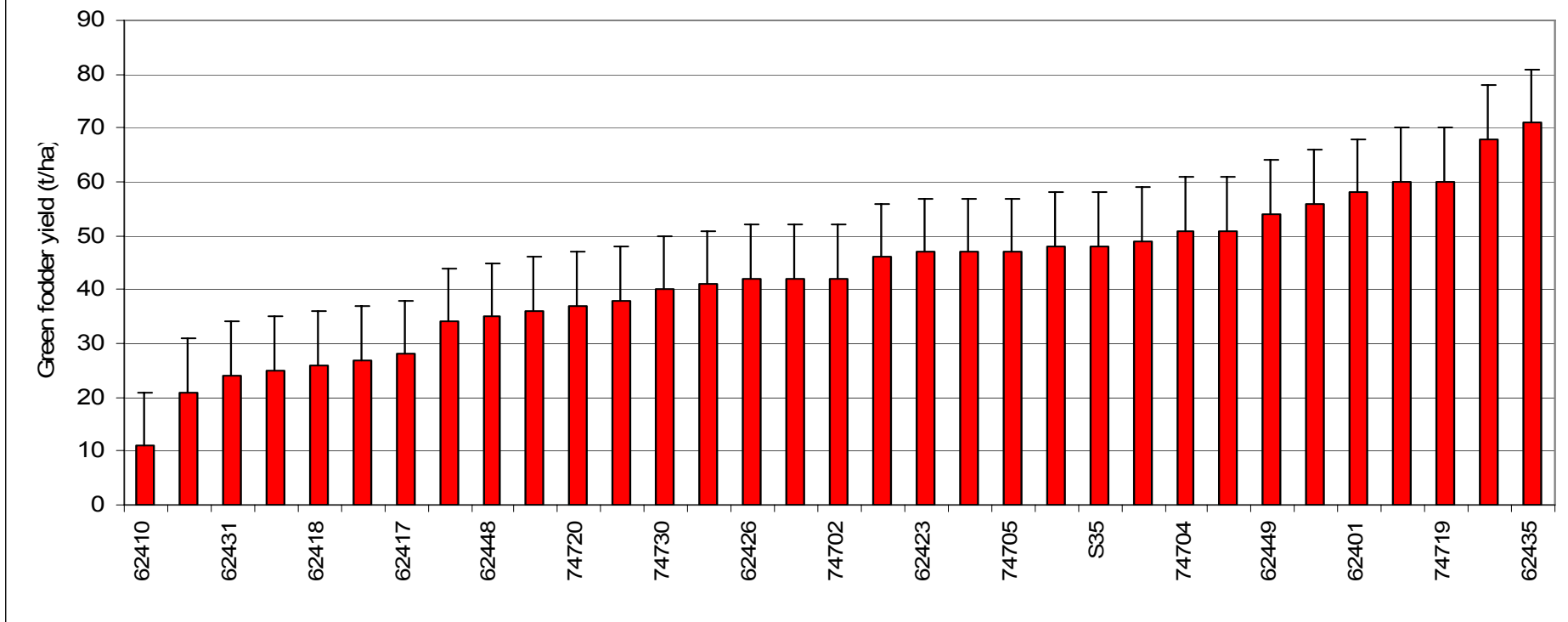


Fig. 7. Variation in fodder yield among sorghum cultivars



ACHIEVEMENTS AGAINST LOGICAL FRAMEWORK

Describe progress of research towards achievement of outputs and activities given in the project logical framework using the form below. Note any milestones completed. Note any modifications to original work plan, if milestones not achieved.

Project Outputs and Activities	OVis (from logical framework)	Achievements During Reporting Period (give dates) and Comments	Planned Achievements During Next Reporting Period (give dates)
Output 1. Knowledge generated about the current livelihoods, the demand for milk products estimated and marketing chains for feedstuffs and milk products assessed	Characteristics of the livelihoods of households with and without poppy cultivation identified and compared in five communities		
1.4 Stakeholder workshop to select districts and communities in target areas	Stakeholder workshop held in target area in 1 st month after project start; participatory workshops held in 8 – 9 communities	<i>Workshops and consultations were held with communities and households to select farmers for the on-farm and on-station agronomic and feeding trials.</i>	<i>Consultations with communities and selected households to monitor impact of the technological options being tested on-farm and on-station will continue through June, 2006.</i>
1.5 Participatory workshop in selected communities to collect information on livelihoods, agree on project activities and select cluster of households for field activities	Participatory workshops held in five communities in 2 nd month of project; at least 15 farmers identified in each community to participate in field activities	<i>Participatory workshops and discussions with communities and selected households to monitor farmers' perceptions and potential impact of selected innovations continued.</i>	<i>Consultations with communities and selected households to monitor impact of the technological options being tested on-farm and on-station will continue through June, 2006.</i>

<p>1.6 Conduct market surveys at community and district level to establish demand, prices, trade and availability of milk and milk products; forage and feed stuffs</p>	<p>Key informant meetings held in five communities and 3 – 4 district markets (2nd month of project); enumerators trained and collecting marketing data every three months thereafter</p>	<p><i>Not started.</i></p>	<p><i>✓Conduct formal marketing surveys on milk and milk products, March-June, 2006.</i> <i>✓Conduct marketing surveys on forage and feed stuffs, March - June, 2006.</i></p>
<p>Output 2. Potential of local land and labour resources to grow and harvest more good quality forages and seed quantified, and increase in incomes from selling forage seeds estimated</p>	<p>Higher production of good quality forage by 4 – 5 households in each community and in 4 – 5 households increased earnings from the sale of forage seed</p>		
<p>2.3 Survey local forage crops, test better varieties and alternative cultural and harvesting practices, multiply seeds, and monitor farmers' opinions</p>	<p>Each year five additional farmers selected per community for field work, own crops monitored; monitoring of farmers' opinions in progress.</p>	<p><i>An informal survey of farmers' fodder conservation practices was completed.</i></p>	<p><i>✓Seed multiplication of promising fodder crops will continue with contract farmers till June, 2006.</i> <i>✓Monitoring of on-farm fodder and feeding trials to document farmers' opinions will also continue till end of June, 2006.</i></p>
<p>2.4 Evaluate novel forage species, multiply and sell surplus seeds, expand areas, monitor farmers' opinions</p>	<p>Trials comparing local and improved genetic material conducted and seeds multiplied on at least five farms in each community; sufficient seed produced to sell to 15 – 20 farmers by the 3rd year of the project to do their own evaluations.</p>	<p><i>✓Replicated trials to compare introduced summer forages - 32 sorghum, 40 cowpea and 20 forage soybean with farmers' variety at the MAAF Poze-Eshan Research Station were harvested.</i> <i>✓On-farm and on-station trials to demonstrate fodder crop varieties and management options were established.</i> <i>✓Contract farmers were identified to multiple seeds of improved varieties.</i></p>	<p><i>✓Data collection on on-farm and on-station winter forage trials will continue till June 2006.</i> <i>✓Spring forage trials will be planted in March, 2006.</i> <i>✓Preliminary data from the on-farm and on-station trials will be analyzed and results shared with farmers by end of June, 2006.</i></p>

Output 3: Additional milk produced by feeding balanced diets to healthy livestock quantified, and better income from higher outputs of milk products estimated	Higher production of good quality milk from the cows belonging to 4 – 5 households in each community, with estimates of the additional income generated		
3.1 Participatory workshop to record current feeding practices and problems; design / implement feeding and health program for lactating cows, monitor trade in milk and prices	Participatory workshop held in 1 st year in each community; in 2 nd and 3 rd year feeding trials implemented with cows belonging to 4 – 5 farmers in each community	<i>✓Trials to demonstrate and test feeding options to improve milk yield and reduce calf mortality were started with 54 households in November, 2005.</i>	<i>✓Demonstrations and testing of feeding options to improve milk production and quality will continue. Preliminary data will be summarized and discussed with the communities and households by June, 2006.</i>
Output 4. Improved methods of household and community-level processing of milk tested that add greater value to milk products and result in higher incomes	More efficient methods to process milk in 4 – 5 households in each community and measurable improvements in the hygienic quality of the products		
4.1 Hold participatory workshop to document local milk processing practices, identify needs and constraints	Workshop (one for men, one for women) held in 1 st quarter after project start up. Role of women in households identified	<i>Informal surveys and consultations with communities on milk processing practices to identify research and development needs were completed.</i>	<i>✓A formal survey on milk processing practices will be completed by June, 2006.</i>
4.2 Test alternative household-level methods of processing milk, test milk for contamination and quality, establish small household level processing unit	4-5 households in each community applying alternative methods of processing milk; data on lower labour demands on women and products of better hygienic quality	<i>Not started because a consultant on milk processing could not visit project sites due to security reasons.</i>	<i>✓Improved milk processing equipments and methods will be demonstrated by June, 2006.</i>
Output 5. Communities assessing the alternative technologies and estimating the potential impact of the technologies on household incomes	Participatory workshops held in each of the five communities		

5.1 Using information collected, hold participatory workshop to estimate likely impact of alternative technologies on incomes and livelihoods	At end of 2 nd and 3 rd year data from monitoring of field activities summarised; workshops held to assess the likely impact of improved technologies on household incomes and livelihoods	<i>Farmers' perceptions on selected fodder innovation and expected impact on household income were documented.</i>	<i>√Preliminary results from the on-station and on-farm trials will be summarised, and their potential impact on household income assessed by June, 2006.</i>
Output 6. Stakeholders knowledgeable about and trained in the use and impact of the alternative technologies, field days held and technical reports prepared	Training courses and field days held and technical reports distributed to stakeholders		
6.1 Training courses for different stakeholders	Three training courses held: <ul style="list-style-type: none"> - In 2nd year on implementing and evaluating on-farm forage trials and seed production - In 3rd year (for men and women) feeding lactating animals, milk processing - In 3rd year impact assessment with farmer participation 	<i>Households participating in the on-farm feeding trials were trained in milk recording, November - December, 2005.</i>	<i>√Students from Baghlan and Kabul Universities will be trained in forage and ruminant nutrition research during March - June, 2006. √One staff of MAAF will be trained in milk processing and crop-livestock production by June, 2006.</i>
6.2 Field days	Field days held as follows: <ul style="list-style-type: none"> - In 2nd and 3rd year on forage crop and seed production and on feeding lactating cows In 3 rd year on milk processing	<i>A field day was organized for farmers and MAAHF staff to solicit farmers' opinion on the potential of summer fodder crops planted on-station.</i>	<i>√Field days on forage production and supplementation of low-quality cereal straw diets with protein-rich supplements will be organized, March - June, 2006.</i>
6.3 Occasional technical publications and wrap-up workshop	Occasional publications prepared and wrap-up workshop held late in 3 rd year		<i>√Data from the on-farm and on-station fodder production and feeding trials will be analyzed and poster prepared by end of June, 2006.</i>

Workplan: Revised Activities and Milestones																															
Project Title																							Improved rural incomes from better forage production and sales of milk products			RALF PROJECT NUMBER: 01-11					
Lead implementing institute: ICARDA																															
Project Year		Year 1												Year 2												Year 3					
Calendar Year		2004			2005									2006												2007					
Calendar month		10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Project month		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
Activities and milestones																															
Activity 1: Baseline surveys/marketing			√	√	√	√				√			√					√			√			√			√				
Milestones				√					√												√							√			
Activity 2: Forage trials							√					√	√						√	√				√				√	√		
Milestones											√											√							√		
Activity 3: Milk production/feeding trials					√		√			√	√	√							√	√				√	√			√	√		
Milestones											√							√						√			√		√		
Activity 4: Milk processing					√	√				√			√							√	√			√				√	√		
Milestones					√					√										√								√			
Activity 5: Monitoring							√			√			√						√			√			√			√			
Milestones												√												√							
Activity 6: Knowledge transfer/reporting					√		√			√			√						√			√		√			√		√		
Milestones									√											√								√	√		

Project 01-16:

Western Afghanistan Agro-enterprise Action Research Program

Ghor, Herat

RALF PROJECT SEMI-ANNUAL REPORT

Period ending June 30, 2006

WESTERN AFGHANISTAN AGROENTERPRISE ACTION RESEARCH PROJECT	
Project Number	RALF – 01 – 16
Project Leader	Paul Hicks
Project Researchers	Kamal Bhattacharyya and Melody McNeil
Organization	Catholic Relief Services, Afghanistan Program
Collaborator	Centro Internacional para Agricultura Tropical (CIAT)
Contract Start Date	August 1, 2004
End Date	December 31, 2006 (Likely to be extended till 2007)
Project Budget	US\$ 399,814

PROGRESS REPORT

Goal: Provide farming households sustainable alternatives to illicit poppy cultivation

Purpose: Identify and promote sustainable agricultural livelihood options for rural farm households in western Afghanistan

Progress on activities (from logframe):

Activities:	Indicators / Progress
1.7 CRS and CIAT conduct studies on domestic and international markets for high-value crops in western Afghanistan. Identify market opportunities for at least three high-value crops	<p><u>Indicator:</u> At least 3 high value crops are selected within first 4 months of project</p> <p><u>Progress:</u></p> <ul style="list-style-type: none"> ▪ Currently CRS is working on a variety of high-value and food crops. Results from new trials of Peanut, Potato, and Fruit Nursery are not yet complete. However results from various new technologies such as greenhouses, plastic crates and fruit drying trays are listed below. CRS is also finding some difficulty in promoting high value alternatives due to drought this year, land and water constraints are reducing farmer willingness to incur risk.
1.8 Contact processors, buyers, traders, and retailers to organize potential supply/value chains for at least 3 high-value crops.	<p><u>Indicator:</u> Potential supply chains for three crops are outlined in the first 6 months of project.</p> <p><u>Progress:</u> 1 MT of cumin was successfully exported through a local trader to the United States. It arrived in June, 06. This learning process has positioned CRS to assist the growth of that supply chain. Other supply chains under exploration are dry fruit, wool and carpets.</p>
1.9 Meet with existing or new community groups of women and men in target communities through focused-group-discussion to discuss constraints and assets and propose livelihood options.	<p><u>Progress</u> CRS has regular meetings with formal and non-formal groups in target villages. This includes a weekly farmer club meeting in Pashtun Zargon, field days in both Shahrak and Pashtun Zargon and regular field visits.</p> <p>Women's SHG groups have also been initiated in RALF sites under the CRS SHG program. These groups have been important sources of learning on livelihoods in Ghor Province. CRS is working on several enterprise initiatives with the groups.</p>
1.10 Form commodity-specific Technical Working Groups (TWG) involving producers, traders, NGOs, government and other stakeholders	<p><u>Progress</u></p> <ul style="list-style-type: none"> ▪ As mentioned in the last report, TWGs were replaced by informal local interest groups. As the project moves toward marketing of crops, cooperative development is being explored. Credit relationships between farmers and input suppliers and other shopkeepers complicate this process.
1.11 Conduct feasibility studies for processing and packaging of products with recommendations and requests	<p><u>Progress</u></p> <ul style="list-style-type: none"> ▪ Cumin-The test shipment was successful and the buyer is interested in purchasing more

and requests from rural focus-groups and the producers traders involved in each TWG	cumin from Afghanistan. This new market could improve demand for Afghan cumin and raise the potential for branding "Afghan Cumin".
1.12 Identify first stage processing activities for selected products specifically for women and men in rural areas	<ul style="list-style-type: none"> ▪ Vinegar- Vinegar production is underway with 20 women. Mud jars ideal for vinegar making were brought from Kandahar for use in the project. Results on marketing will be available in the next report. ▪ Seri-culture- The second season experiment was successful. CRS has expanded silk promotion in Pashtun Zargon to 40 new farmers. CRS is also working with Voice of Women Organization in Zinda Jan District on marketing. This will be a potential market for PZ farmers. ▪ Fruit drying trays- Beginning with 9 trays in 9 villages of Shahrak District, farmers have utilized trays which raise drying apricots off the ground and protect them from dust and other debris during the process. Results are discussed below.
2.5 Facilitate agreements between organized producers and traders for value-adding activities and trading. Clarify roles for each group.	Planning with shopkeepers in Ghor to carry the materials for drying trays as well as plastic crates is underway.
2.2 Conduct workshops for producers, traders, and members of the TWGs in: <ol style="list-style-type: none"> 1. Grades and Standards for specified crops 2. Food Safety guidelines for international markets 3. Packaging and Handling of products for domestic and export markets 4. Management Quality Systems 	<p>Training on the use of drying trays was undertaken in participating villages.</p> <p>Training on non-chemical aphid control was undertaken. The benefits of non-chemical control were also shared.</p>
2.6 Work with producer groups and/or traders to access loans or grants to support business plans for developing value-adding facilities (e.g. packaging centers and cold-storage facilities).	<ul style="list-style-type: none"> ▪ Greenhouses /poly-tunnels are giving encouraging results both for income generation and creating employment opportunities during winter when farmers need both engagement and income most. Farmers individually as well as in groups approached CRS for support in making new greenhouses. CRS has contacted a few micro-credit institutions and developing ideas on how to handle this issue of providing loans to farmers or farmers' groups without hurting cultural and religious sentiments. Same is with collective marketing. The infrastructural facilities needed for collective marketing also requires resources and negotiations are on with credit institutions. These interventions look promising, however it may be 2-3 years before communities in Shahrak and Pashtun Zargon are in a position to scale interventions up.
2.3 Provide Technology Innovation Grants to organize producers and traders to encourage quality-driven innovations, (e.g. small-scale green houses, packaging materials, or small storage facilities)	Plans to help set up 8-12 community greenhouses in Shahrak and Pashtun Zargon Districts will be made in August.
2.4 Producer orgs and traders are provided market information through regular TWG meetings & information dissemination	Market information is shared with farmers and groups as each demonstration is introduced. For instance, when Chinese garlic was introduced, farmers were part of market visits to assess price differences with the local variety. Farmers have also been important sources of market information and participants in market studies. Market information can be difficult for farmers to trust as their ultimate pricing and purchasing situation is dependent on so many factors including harvests and debt.
2.5 Provide producers with agricultural extension services for improving yield and quality of market-oriented crops	Extension has already been given for a variety of crops including chickpea, nursery, cotton, greenhouses, peanut, potato, oilseed crops, vegetable and others detailed in the narrative below.
2.6 Establish demonstration plots and trials with participating farmers to introduce and evaluate new varieties and/or technologies	Demonstrations for a number of crops have been undertaken. Some of the most interesting demonstrations have been oilseed crops, different greenhouses, improved varieties of onion, potato and garlic, seri-culture, fruit tree nurseries and vegetables. These are discussed further in the narrative below.

3.2 Meet with consolidators and retailers in export markets (Dubai, India, USA, UK, EU) to market products	CRS has recently facilitated a garden association in our program area of Ingil to contract with Herat based traders to export 4800 mt of grapes to Russia. While this is not part of CRS' RALF activities, it does give momentum to potential agreements from the more remote areas RALF is carried out in.
3.3 Facilitate agreements between producer/trader associations and buyers in export markets for supplying products from organized producer/trader groups	Nothing to report this period
3.4 TWG develops and implements improved marketing arrangements in local and export markets	The use of plastic crates and drying trays to improve post harvest quality is helping farmers to negotiate better market prices. Continued follow up with these methods and others like them will assess the level of uptake and impact they have after the trial period.
3.5 Provide Marketing Improvement Grants to producers/traders associated with TWG for improving access to export and domestic markets	Nothing to report this period

RESEARCH PROCESS

PEAR Approach

Finding alternatives to poppy livelihood strategy and its adaptation by farming community are two different things. Alternatives can be found in a research station or even by literature survey. But to judge if it is adapted by the farmer, one has to test the alternative(s) at the farmers field. CRS is interested to find alternatives to poppy that are adaptable by the farmers. Therefore without farmers Participation alternatives can never be identified.

CRS decided to identify alternatives that directly compete with Poppy spatially and/or temporally. It requires new knowledge, arrangements for new inputs, marketing arrangements and even new financiers. Obviously farmers would be cautious in taking risks especially when the economic conditions of the farmers are not very sound. Therefore, what is important is to give a transition plan for the farmer on how to reach a farming system where they are not dependent on poppy (if possible with minimum or no economic loss). For this CRS followed a transition plan suggested by McRae et. al (1990 published in American Journal of Alternative Agriculture and the transition plan was given for transitioning from conventional to ecological way of farming). In that model the first step was to increase Efficiency of existing enterprises and practices. This was mainly to gain confidence of the farmers. The next step was introducing new things for Adaptation. And the last stage was Redesigning the whole system. This constitutes the entire PEAR (Participation of farmers, Efficiency of the existing crops and enterprises, Adaptation of new ideas and finally Redesign of the entire system) approach.

In Pastun Zargon CRS used non poppy growing seasons like spring and summer for increasing efficiency of crops and enterprises. For instance farmers were already growing onion during May to August. CRS introduced an improved variety (Yellow Spanish) which gave at least 30% higher yield and better marketability. Similarly, CRS introduced high yielding variety of garlic (Chinese) which gives 300 to 400 per cent more income as compared to local variety using similar resources. These are examples of efficiency. These on-farm trials and demonstrations increased farmers trust levels on CRS.

As the trust levels increased CRS introduced alternative crops and enterprises like Cumin, Fruit tree

tree nursery, Chickpeas, Sericulture, greenhouse cultivation of crops, etc which compete with poppy spatially and / or temporally or even with resource demand like labor. At the moment all CRS field demonstrations / trials are either at the efficiency stage or at adaptation stage depending upon trust level of the farmers with CRS.

Targeting in Pashtun Zargon has focused on land and timing related to opium poppy production predominantly rather than on particular farmer groups. Participatory research has shown that there are fewer sharecroppers and landless families in Pashtun Zargon than in higher agricultural potential areas like Ingil and Guzara. While land holding may be very small, subsistence production is so important that most families still have land. Average land holdings are 5-6 jeribs with 20-25% irrigated land. Of the demonstrations ongoing, 4 are with sharecroppers, the rest are with the actual land owners. Both owner farmers and sharecroppers have grown opium poppy in the past (or currently). The sharecroppers have the added difficulty of being dictated what crops to sow and credit arrangements with their landowners. None of the CRS supported demonstrations use laborers, however, labor intensive crops and technology are demonstrated such that on scale-up employment would be generated. Land suitable for poppy is always used. Except for 1 of the demo farmers are in a middle poor to poor category. The wealthy farmer (more than 30 jeribs of land) was the first willing to demonstrate greenhouse technology on his land. Because he is a relatively large landowner he is also has sharecroppers and is likely to have opium poppy cultivation. Demonstrating on his land gives CRS a higher visibility with this new technology.

In the middle of Adaptation phase, a farmers' club has been formed where all members meet once a week for discussing farming related problems and issues, especially encountered with existing and new cropping system. For the last few months the club members are discussing on "whole farm planning". In the whole farm planning all parcels of land including homestead are included. Farmers discuss past / existing crops and enterprises as well as future land use patterns. In the course of "whole farm planning" discussions, farmers have begun discussing the role of opium poppy. In previous reporting periods discussions regarding opium poppy cultivation were only taken one on one as farmers were not willing to discuss their involvement openly.

The farmers' club has also been instrumental in identifying trial crops for this season. Table 1 gives a full listing of current trials.

Table 1. Demonstrations/Greenhouses in Pashtun Zargon

Crop/product	# of farms	Purpose of demonstration/intervention	Size of demonstration in meters square
Potato	6	Testing production potential of potato crops	1000
Cotton	4	Comparing local with improved variety and also as an oil seed crop	2000
Fruit Nursery	7	Crop diversification, income enhancement and using fruit trees as wind brakes	1000
Sesame	3	Reintroducing an old oilseed crop	2000
Soybean	2	Introducing new oilseed crop. Last season in Urdu Khan Research Station of Herat three soybean varieties were identified as promising varieties. Out of these three the best one is being tried in PZ.	1000

		PZ.	
Chickpeas	4	Understanding the production potential of chickpeas in drought situation. Potential export oriented crop but it also has high demand in local market.	2000
Peanut	12	Introducing a new oilseed crop	2000
Onion	6	Comparing improved variety (Yellow Spanish) with local variety	300
Garlic	1	Comparing improved (Chinese) variety with local variety	1000
Saffron (men)	24	Production potential of saffron	1000
Saffron (women)	14	Encouraging women farmers to undertake saffron cultivation in and around the homestead.	100
Greenhouses	12	Off-season vegetable cultivation and income generation mainly during winter	100
Sericulture	40	Promote silk production among resource poor farmers	1 egg box/farmer

Greenhouses

All 12 Pashtun Zargon greenhouses were planted initially with cucumber and tomato. However, these crops failed due to severe cold weather and insufficient heating in the greenhouses. This was mainly due to misunderstanding of Agronomist / Farmers regarding crop tolerance to low temperature and delayed reaction in setting heating arrangements. Further, using more heaters with purchased fuel makes the greenhouse cultivation less attractive. Lettuce was subsequently planted as a follow-on crop which grew well in the winter without using heater. Farmers made an average of 3,000 AFA/greenhouse for lettuce. We learned three things from this: (1) Greenhouse cultivation in winter needs constant attention, (2) All crops are not equally tolerant to cold temperature, (3) Using heater may not be a good idea at all for greenhouse cultivation and (4) Selecting crops which do not require additional heating is the best and sustainable solution. In the spring season farmers planted early tomato and eggplant, but have been consuming the production due to food deficits.

Kabuli Chickpea

In 2005 CRS did small-scale trials of Kabuli chickpea because of its known drought tolerance and its demand on international markets. In this part of Afghanistan most (about 90%) of the precipitation (rainfall and snowfall) takes place during winter (November to March). From the rainfall patterns of the 2005-2006 winter it was clear that drought was likely to hit again which encouraged CRS to increase chickpea trials in Pashtun Zargon. From the potential profitability shown in Table 2 makes chickpea even more attractive to farmers in drought prone areas. An additional benefit of chickpea is that it helps to build rather than reduce soil fertility showing benefits to crops following it. CRS expects farmers to see the improvements in the crops they plant following chickpea.

Table 2. Kabuli Chickpea Profitability*

Crop	Production cost/gerib	Yield/gerib	Farmgate price/kg	Profit/gerib
Kabuli Chickpea	2000	350 Kg	35	10,250
Poppy	3500	8 Kg	2000	12500

*all prices in AFA

Onion and Garlic

These crops have solid market potential in the Herat markets and have been selling well since CRS introduced the Chinese garlic and Yellow Spanish onion varieties in 2005. Interest is high from other farmers and CRS will explore ways of making the planting materials available locally. The CRS agronomists and marketing teams will collaborate on identifying appropriate local retailers to bring the planting material in, and working on seed production with farmers. Production costs for onion and garlic are 5,000 and 7,000 respectively, but the return is likely to be in the range of 35,000 AFA/jerib. But one thing we need to keep in mind that both the crops need good irrigation facility and drought severely affects the yield potentiality and profitability.

Oil Seed Crops

In February, 2005 CRS completed a Bellmon Analysis including a section on edible oil production in Afghanistan. Given the low level of domestic production as compared to estimated domestic demand in Afghanistan (Table 3) there is large scope to increase both production of oil seed crops and edible oils for domestic consumption. Before the conflicts of the 1980s and 90s, Afghanistan had developed a growing edible oil industry. The Daoud regime in particular supported oil production focusing on cottonseed oil with a related textile industry. Both the textile and oil industries collapsed when the conflict set in.

Table 3. Afghanistan Estimated Balance Sheet for Edible Oil (mt)

Domestic Production (est.)	87,500
Consumption Requirements (est.)*	268,000
Balance	-180,500

*consumption requirements are based on Pakistani per capita oil consumption of 11.9 kg

Both Afghanistan and Pakistan are currently net importers of oilseeds and edible. It stands to reason that should Afghanistan develop an oilseed industry or increase current edible oil production, there would be ready national and regional market opportunities for those products. Potential for both import substitution and export markets are there.

CRS is working with soybean, cotton, sesame, and peanuts as oilseed crops recognizing that they have other uses as well. Yield data are not yet complete. However, the potential for these crops to grow successfully in Pashtun Zargon is high and the results will be reported in our final, Jan. 07, report.

Fruit Nursery

Fruit nursery trials have been undertaken by 7 farmers in Pashtun Zargon. Fruit nursery can compete with opium poppy if the farmers can wait the 2 years it needs to start up and have the skills for budding and grafting. One farmer from Robat Moghal village of PZ was sharing his experience with Apple and other high value fruit crops and according to him the return was more than 10 times the investments in Apple. The table below shows the comparison of different fruit nursery in one Jerib of land.

Crop	Cost (Afs) per Jerib	Income (Afs) per Jerib	Profit (Afs) per Jerib Per year
Apples	50,000	500,000	225,000
Apricot/Almond	40,000	250,000	105,000
Poppy	3,500	16,000	12,500 *

* Poppy is a five month crop and a second cropping is possible in the same land after Poppy harvest.

However, one needs to remember that for nursery it requires skill for budding / grafting and the adequate numbers of suitable buds. CRS will train these seven farmers on budding / grafting later in the year.

Sericulture

Sericulture experimentation has met with initial success in Pashtun Zargon. The initial experiment with a second, winter, season of silk production in 2005 was successful leading one of the farmers to hold back eggs to continue their work in the following season. Her innovation led to income gains of \$100 dollars over 2 months from silkworm production alone. CRS recognizes that the eggs produced locally is second generation eggs and may not have the expected vigor. In order to evaluate that CRS has planned to start cocoon production trial with 40 new families in Pashtun Zargon and Zinda Jan. This project cooperates with both RAADA and Voice of Women Organization. The goals include production gains and improving value addition through weaving and design. This project is expected to help increase the marketing opportunities for Afghan silk producers. Information on the TV program highlighting sericulture is detailed in the Dissemination of Outputs section.



Seri-culture in Pashtun Zargon District

Territorial Approach to Agroenterprise Development

Since the January report CRS and communities in Shahrak District have used results of Market Opportunity Identification activities to guide work throughout the agricultural year. Table 4 shows a complete list of demonstrations underway in Shahrak. There are a few demonstrations which were not identified by MOI which will be discussed in the course of this report. The results of many of the demonstrations are not yet available as harvesting is either not complete or not yet begun. However, there are several interesting results that have come out. These are discussed in detail in the following sections. Following full results from all trials Product Cards will be completed for several options and shared with DfID/ICARDA. The CIAT outline of a Product Card is shown in Figure 1. CRS has not yet finalized its own format, but it will be adapted for use in Shahrak.

Table 4. Demonstrations/Greenhouses in Shahrak

Crop/product	# of farms	Purpose of demonstration/intervention	Size of demonstration(s)
Wheat	26	Potential increased yield over traditional varieties	1000 meters square
Potato	18	Improved variety for already high value crop in Ghor. Growth has been better than local variety.	Average size= 500 meters square Smallest plot= 333 Largest plot= 1000
Early Tomato	36	Greenhouse produced tomato seedlings germinated 45 days early and were distributed for an early season of tomato	150 meters square
Onion	17	Improved variety for already high value crop in Ghor	24 meters square
Okra	17	Row seeding for higher yield of a traditional crop	15 meters square
Nursery	20	Continued monitoring of nursery plots initiated in late 2005	300 meters square
Plastic Crates	100	Improved post harvest handling and transport for marketing	Information below
Fruit drying trays	9	Improved post harvest handling	Information below
Pruning equipment	10	More effective pruning for orchards. The equipment was given to village shuras to be used on a community basis.	Information below
Greenhouse	1	Introduce winter vegetable cultivation and seedling production	100 meters square
Rainfed Alfalfa and protection fencing	8	Introduce and FAO improved variety of rainfed alfalfa for improvement of winter feed for livestock	Average size= 1373.5 meters square Smallest plot= 600 Largest plot= 2100

Targeting of farmers for demonstrations in Shahrak district has been complicated. We make efforts to ensure the land we target is suitable for poppy cultivation and have been successful in doing demonstrations on poppy land. However, identifying the farmers requires flexibility. Land availability is low enough that CRS staff first begin with farmers willing to work on the demonstrations. Approximately 80% of the farmers we work with are considered poor with less

than ½ Jerib of irrigated land. The other 20% of participants are “less poor” with 2-4 Jeribs of irrigated land. The wealthier farmers can undertake riskier crops such as vegetables and nursery, while poorer farmers can do varietal trials with wheat and potato. Currently none of the demonstrations are on land that use laborers. This is in part because we are trying to target poorer community members. However the potential for laborers and sharecroppers (who are also among the 80% of farmers doing demonstrations) to take up new crops or technologies when they are proven or become available (for instance improved potato seed) is strong.

Figure 1.

Sub-region	Product's name	Cultivated area or Capacity	
Photo or drawing	Symbols related to information on the right	Key information for the producer	

Wheat Trials

CRS, in consultation with communities, made the decision to carry out wheat trials as part of the project. Land scarcity and widely reported food insecurity highlighted the importance of improving food crop production alongside higher value crop alternatives.

Table 5. Wheat yield result to date*

Village	Variety	Number of irrigations	Yield of new variety**	Yield of local variety
Dahane Hasarak	Gul	9	155kg/20kg	144kg/20kg
	Sol 2000	6	TBD	232kg/20kg
	Ghazni	7	170kg/20kg	100kg/20kg
Dahane Margha	Ghazni	4	350kg/20kg	125kg/20kg
Konda Sokhta	Ghazni	7	300kg/20kg	TBD
	Sol. 2000	6	200kg/20kg	TBD
Sarezaw	Gul	6	400kg/20kg	TBD
Tagob Mazar	Gul	5	125kg/20kg	TBD
Sheberg	Ghazni	6	200kg/20kg	133kg/20kg

* Other results have not yet been measured. Harvest times do vary slightly.

** Yield is measured by seed volume. Farmers indicated planting approximately 20kg for 1,000 square meters.

The wheat trials have also highlighted farmer priorities and crop interactions in different villages of Shahrak district. In Tagob Mazar, for instance, the yield listed in Table 4 is quite low because the farmer chose not to weed his plot. He found the germination rate and the growth of the wheat to be more than satisfactory. However, because he values winter feed for livestock more than high

yield in wheat, he chose to allow weeds to continue growing throughout the season. This same scenario was repeated in other villages as well. It points to the need to recognize the role of livestock in livelihoods, and highlights the importance of rangeland management, and forage & fodder production.

In Naspanj and Leach villages the irrigated wheat plots are surrounded by trees. Wheat in those areas was affected by aphids at a much higher level than others. Yield information for those villages has not been gathered yet, but it is expected to be low.



In response to presence of aphids on almost all fields, CRS introduced one method of aphid control and encouraged the increased use of a local aphid control method. The new method CRS promoted was the use of sugar water to attract ants to eat the aphids. A search for locally available sprayers to spread the sugar water showed that even in the Dara-e-Takht bazaar, sprayers were not available. Only a few wealthier farmers in the project villages owned sprayers and weren't offering them for rental. Therefore CRS provided sprayers to village shuras as public goods for use by all village farmers in pest control.

The local method had only been used on tobacco in the past, but CRS encouraged its use on wheat. Fresh ash is collected after cooking and scattered across the crop. Aphids will not attack the areas where ash is present. Because this method has been used consistently and successfully in the past, CRS wanted to encourage the increased use of indigenous knowledge. Many farmers believed the method would be ineffective on wheat. However, between the 2 methods, aphids were controlled. While farmers were happy with the results, they still believed chemicals would have addressed the problem more quickly.

Problems with pests and drought continue to undermine alternatives programs. As people continue to hold food security concerns their risk aversion remains, their debt situations are unlikely to change and their ability to diversify is compromised.

Rainfed Alfalfa

CRS made the decision to begin work on alfalfa in response to the high ranking livestock received during MOI activities and to the results of the report from Dr. Pitroff of UC Davis following his consultancy in November-December, 2005. His report (Appendix 1) on the nutritional value and availability of current rangeland stock and fodder led us to trials of alfalfa on rangeland. The trials are fenced with barbed wire to protect them from grazing. This protection is critical given the

experimental nature of the cultivation and the likelihood that shepherds will not prevent livestock from grazing in the trial areas.



The current drought faced in Ghor province is having a dramatic negative impact on the rainfed alfalfa, as well as all rainfed crops. Germination in the alfalfa trials was only about 40% on average. Similar germination rates have been observed in rainfed wheat and barley fields. Typical germination is reported to be closer to 80% indicating a potentially dramatic food deficit for the year¹. Rat infestation is also compounding the difficulties of drought. CRS has identified 2 methods of organic control that will be introduced to farmers during the next reporting period.



While rat control methods can be introduced, the loss of crops from this season cannot be recovered. Farmers in Shahrak district are exhibiting risk averse behavior. Villages that had shown interest in greenhouses previous to these losses have said that they are no longer able to adopt them. The potential of drought to reduce farmer willingness to shift irrigated land to new or experimental purposes is a critical drawback to alternative livelihood programs. Opium poppy cultivation is a well know drought resistant crop with a guaranteed market and accompanying credit arrangements. In this climate it will be difficult to convince farmers to reduce opium poppy cultivation.

New Technology

CRS, with input from the MOI activities of crop ranking and prioritization, introduced two low technology inputs to improve tomato and fruit post harvest handling and marketing in Shahrak. The first is **drying trays** for fruit and tomato, the second is **plastic crates** for transporting fresh

¹ Typical germination measurements assume a 30% seed loss from birds or other problems. Therefore the reported germination rates are measured from 70% of sown seed.

produce to market. In the first case results have been very positive as shown in Table 6. In the case of the plastic crates, the response has been overwhelmingly positive. They have been used for harvesting and transporting fruits already. They have been used to move fruit to remote locations in Ghor for trade at rates of 1 part fruit to 2 parts wheat and 2 parts fruit to 1 part Kurut. The reduced spoilage from the crates has improved terms of trade for farmers with fruit, although the exact extent of reduced spoilage has not been measured yet.

Table 6. Price comparison between apricot drying methods

Village*	Dried fruit-drying trays	Dried fruit-traditional	% increase
Pay Tonda	50 AFA/kg	37.5 AFA/kg	33%
Dahane Hasarak	40 AFA/kg	30 AFA/kg	33%
Dahane Margha	30 AFA/kg	25 AFA/kg	20%
Konda Sokhta	50 AFA/kg	35 AFA/kg	42%
Sarezaw	50 AFA/kg	35 AFA/kg	42%

*Only 5 villages sold dry apricot this year. The other 5 project villages have held their fruit because of food shortages.

The drastic price differences are due in part to the higher level of cleanliness achieved by using the drying racks, and also the initiative of farmers to take the drying more seriously with the drying trays. It seemed to CRS staff that the trays may have increased the sense of dried fruit as a business.

CRS will complete product cards on both technologies after full debriefs with the communities. Product cards will be modeled after the CIAT/TAAE product cards used to promote various market option following the MOI process. Product cards have a photo showing the option and include descriptive and quantitative data regarding its use and benefits. After product cards are completed, CRS will facilitate shopkeepers in local bazaars to have the trays and crates in stock to observe uptake of the technology.

Greenhouses

CRS has found positive income effects with greenhouses in Herat Province and saw benefit in experimenting with the technology in Ghor Province as well. This intervention was not identified by MOI activities. While there was a tremendous amount of skepticism on the part of farmers, the results were observed closely by farmers from neighboring villages. Due to the severity of the winter, the project team was concerned that the potential for failure was fairly high, and therefore established only one greenhouse, and built it within the CRS office compound in Sharak.

A few important lessons from the greenhouse experiment include: The hardiest types of vegetables did well, for example, lettuce. Also, tomato seedlings were cultivated in the greenhouse, germinating 45 days earlier than traditional tomato production in Ghor. The tomato seedlings (9,150) were then distributed to farmers visiting the greenhouse and field staff monitored the results of those tomato plots.

Following these successes, villagers from 8 of the villages expressed interest in building their own greenhouses for the coming winter (as mentioned above this seasons weather and pest conditions have reduced this number). CRS is working with the shuras in these villages to run the greenhouses as community greenhouses. It is possible that land dedicated to greenhouses may be shifted away from opium poppy cultivation. CRS will make special efforts to assess whether or not this is in fact the case in trial greenhouses. The results of these greenhouses will not be clear within the remaining project period of RALF. However, CRS will continue to monitor their progress after EOP.

MODIFICATIONS TO IMPLEMENTATION PROCESS

CRS staff have seen a variety of issues facing farmers and community members during the past 6 months. During this time CRS has been flexible in addressing a variety of issues not originally expected including pest management through organic means and including food crops as part of the project in response to food deficits.

CRS has also begun a full household livelihood analysis through the PEAR Approach in Pashtun Zargon. This is attached as Appendix 2. The survey is in response to a need to better understand livelihood interactions of opium poppy production in order to implement alternatives programs more effectively. The results of this survey will better position CRS and other organizations to more effectively address opium poppy cultivation in the future.

The process of introduction and promotion of support services to alternative livelihoods in the project areas will vary for different options. Efforts toward making seed and seedlings available, crates, drying trays and other inputs will be undertaken before EOP within local bazaars. However, it is acknowledged by CRS that the ability of large numbers of farmers to diversify given the climatic and pest conditions of the past season will be diminished. Promotion of those alternatives deemed desirable by communities will continue post-EOP through other CRS programs.

Other support services such as formal credit are not yet demanded. In other CRS programs demand for credit has taken up to two years after project commencement to materialize. This is due to risk aversion and attitudes toward formal credit as well as current levels of indebtedness.

DISSEMINATION OF OUTPUTS

International dissemination

CRS presented a paper at the International Symposium “Towards Sustainable Livelihoods and Ecosystems in Mountainous Regions” hosted by the University of Chiang Mai (Thailand), the University of Hohenheim (Germany) and ICRAF in Chiang Mai Thailand in February 2006. The paper was titled *Enhancing livelihoods for resource poor households in the Afghan Hindu Kush using the Territorial Approach to Agroenterprise Development* and is attached as Appendix 3.

Local dissemination

Through the Herat Department of Agriculture, CRS has gained access to regularly televised agricultural programming. For several interventions in Ingil and Guzara, CRS projects have been highlighted. The RALF Sericulture project was also highlighted through this media. A brief description of the program follows.

The goal of the program was to show that silkworm eggs can be produced locally rather than imported for each production cycle. Local egg production has its own merits even if it does not always give the best cocoon yields. Jiva, a lady in Jezabad village of Pashtun Zargon who has silkworm growing experience for over 40 years produced silkworm eggs from the materials that CRS / RAADA had supplied in the 2005 “2nd season” experiment. Jiva and her son Latif also used the locally produced eggs for cocoon production. Quality of cocoon produced from the locally produced eggs was good. From their self produced egg materials in two months time Jiva and Latif have earned over US\$ 100 using a small (2.5mX3m) room.

Jiva, her son Latif and CRS Senior Agronomist Abdul Rahem were interviewed for the TV program. The program highlighted (1) explaining Jiva’s experience of silkworm eggs production, how she adapted a complicated technique to make things simple and narrated her experience on how to handle eggs / larvae during winter, and (2) how with minimum infrastructure one can start producing silkworm eggs and its potential impact on rural household income generation and employment opportunity creation.



Activities for remainder of project

Between now and EOP CRS expects to complete the following activities:

- Grants/loans for greenhouses—CRS expects that 8-12 new greenhouses will be in process by EOP;
- Local publicity surrounding greenhouses and other successful interventions.
- Published report on agronomic and livelihood interventions of opium poppy and recommendations for future alternative livelihood programs;
- New crops, technology, and other practice uptake monitored and product cards and results prepared;
- Results from all current demonstrations and progress on new demonstrations;
- Plan for CRS follow up with RALF communities;
- Final report including lessons learned, program and policy recommendations.

Signature: Paul Hicks

Date: 31 July, 2006

Name

An M&E Framework for RALF.

M&E Domain	Null hypothesis	Detailed M&E Questions	Data Sources	Proposed analysis
Achievement of Programme Goal <i>What has the CRS project provided?</i>	<ul style="list-style-type: none"> CRS has had no impact on increasing available sustainable alternatives to opium poppy cultivation 	<ul style="list-style-type: none"> To what extent, where, how and for whom have these impacts been achieved and are attributable to the project? 	<ul style="list-style-type: none"> Information on this is currently contained in semi-annual reports and will be further discussed in the final report 	<ul style="list-style-type: none"> Examination of direct and indirect evidence in relation to licit activities in the project area.
Achievement of Project Purpose <i>Has CRS identified and promoted alternative agricultural livelihoods in rural western AFG?</i>	<ul style="list-style-type: none"> The project has failed to identify, test and promote 3 alternative livelihood technologies in poppy growing areas 	<ul style="list-style-type: none"> What have been the intended project achievements (and failures) in terms of developing and promoting viable alternative livelihood technologies, and where and why have these been achieved (failed) and for whom? 	<ul style="list-style-type: none"> This is currently contained in the semi-annual reports Final analysis will be in the final report 	<ul style="list-style-type: none"> Examination of successful and unsuccessful AL technologies, reasons for success & failure.
Achievement of Project Delivery <i>Has CRS delivered on outputs?</i>	<ul style="list-style-type: none"> The project has not formed market development strategies 	<ul style="list-style-type: none"> What efforts and results has the project has with regard to market development/research? 	<ul style="list-style-type: none"> Information is contained in semi-annual reports, CRS submission to international symposium, field reports Final report will also include this issue 	<ul style="list-style-type: none"> Project understanding & action with respect to market conditions and potential
	<ul style="list-style-type: none"> The project has not used participatory research approaches 	<ul style="list-style-type: none"> What are the intended participatory project approaches and have these been achieved? 	<ul style="list-style-type: none"> Information on CRS participatory approaches is contained in semi-annual reports, paper submission, and PRA results 	<ul style="list-style-type: none"> Projects use and evaluation of participatory processes
	<ul style="list-style-type: none"> The project has had no effect on value adding activities in the project areas. 	<ul style="list-style-type: none"> Have project participants increased value adding through the project? What are the products, technologies etc in use? 	<ul style="list-style-type: none"> Information is included in semi-annual project reports Final Report Final evaluation 	<ul style="list-style-type: none"> Project action and training regarding value adding and participants response and uptake
	<ul style="list-style-type: none"> The project has had no effect on sales in local or export markets 	<ul style="list-style-type: none"> Do project participant have higher incomes as a direct result of project activities? Can these results be scaled up? 	<ul style="list-style-type: none"> Information/analysis to come in the Final Report, Final evaluation 	<ul style="list-style-type: none"> Project impact on markets and ability to assist integration into new or existing markets

