

# Value Chain Operations Manual

Case Study: Improving the Mir Bacha Kot  
Grape Value Chain



Cover: Abdul Qudus with Karachi-Bound Grapes Packed with World Bank GVCP Assistance

Compiled by J.D. Zach Leas, PhD for Roots of Peace with funding from the World Bank Horticulture and Livestock Program (HLP). With recognition to the following people: Loew Theron and Sharif Osmani of Roots of Peace. Afghan photographs supplied by Sharif Osmani of Roots of Peace

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Stuart Pettigrew, HLP Horticulture Specialist, stimulated the development of this project and assured that it had the flexibility to be practical and participatory. Greg Cullen, Perennial Horticulture Development Project Team Leader, provided the suggestion which led to testing Gibberellic Acid. Hajji Sultan Hamid, ROP Horticulturalist, provided guidance and training on grape cultural practices. We thank Louw Theron for his insights and suggestions relating to the post harvest and marketing of Shamali grapes. Louw authored two manuals for the project: a post harvest handling manual and a manual for HACCP in our Mir Bacha Kot pack house. Andrew Teubes authored a manual on grape production in the Shamali Plain.

We appreciate the investments of time and resources made by the farmers and merchants who participated in the project. They have shown great patience in once again listening to an international organization's promises for assistance. With Sharif's involvement, they have agreed to participate. Importantly, they have expressed their appreciation for the project and the benefit they have derived from it. They are willing to continue the effort to improve the ability of the grape value chain to provide valuable benefits to farmers, merchants and consumers.

## 2 Summary

This report describes the application of value chain analysis and improvement techniques to the grape value chain centered at Mir Bacha Kot village north of Kabul in the Shamali Plain. The report is designed to be used as a model to follow for the application of value chain analysis and improvement techniques to other value chains in Afghanistan. Future readers of the report will find a discussion of the theory of value chain analysis, a step-by-step guide for implementing value chain analysis and improvement and a step-by-step description of how value chain analysis and improvement was carried out in the Grape Value Chain. The Table of Contents shows the steps to follow.

The project was successful in demonstrating new production and marketing technologies that show how farmers and merchants can substantially increase the income they derive from the production and marketing of grapes. Application of Gibberellic Acid to improve the weight and size of fresh Kishmishi grapes can result in farm income increasing by more than 100%. Using grape grading, packaging and marketing techniques designed by GVCP staff and participating merchants can result in substantially higher prices for fresh grapes. The most striking increase in farm-level fresh grape price (approximately 57%) was paid by a participating merchant who was shipping fresh grapes to Karachi in refrigerated shipping containers or “reefers” following instructions and training delivered by the GVCP staff. See page 8. The discovery of the grape market opportunity in Karachi and the development of the techniques to reach it may be the most important result of the GVCP because this is the first stage in the development of a marketing channel for Shamali grapes to the port at Karachi and, via the port, to the world market.

At project initiation, the major effort was directed toward testing changed marketing practices including grading, packaging and delivery to “new” markets in the interior of northern Pakistan, “past or beyond” Peshawar. The idea was to change the marketing system to better reward Afghan farmers and merchants for higher-quality fresh grapes. The effort was successful in that products marketing using the recommended marketing practices fetched higher prices and marketing margins than the traditionally marketing products. See the table on page 16.

The process used in implementing the project was to design production and marketing interventions in collaboration with the farmers and merchants and then to assist them to carry out tests of the interventions. The GVCP staff provided training to the participants to assist them implement the tests. See the Annex table on page 33 for a list of the major training sessions. We assisted the merchants to market grapes as part of the tests of new marketing ideas. As part of the tests, merchants exported 695mt of fresh grapes. See the Annex table on page 33 for a list of the merchants, associated markets and volumes.

Participating farmers and merchants praised the project’s accomplishments and requested an expansion of the services in a follow-on project. Farmers requested more assistance with production, specifically, asking for more demonstration plots in their areas. Merchants supported the farmers’ requests, saying that a development agency should work with farmers linked to merchants as the GVCP attempted to do to assure quality grape production and marketing. The merchants also asked for expanded assistance with marketing, especially marketing assistance that will allow them to fully exploit the newly discovered market in Karachi for Shamali grapes and to test the Dubai market. A list of the farmers’ and merchants’ requests is provided in the Annex on page 36 and the following page.

The GVCP staff and consultants have the following additional recommendations:

- Initiate pest (Powdery Mildew) management and other cultural practices (pruning and culling) early. GVCP activities started too late in the season last year (the project started in June) to make an impact on grape quality.
- Continue efforts to solidify the use of the marketing techniques and marketing channels to Karachi, Islamabad and Lahore.
- Begin marketing grapes to Dubai via 40' refrigerated containers shipped by sea.
- Continue efforts to establish a marketing channel to the international military in Afghanistan. This will require high-level assistance from within the military and government.
- Construct an evaporative cooling room at MBK pack house for use in partially cooling grapes before packing.
- Construct and test a raisin-drying structure (rack) in cooperation with a raisin merchant. This will allow demonstration and testing of the benefits of drying raisins off the ground. The cleaner raisins may fetch prices that are high enough to pay for the additional investment and care.

Four supporting manuals have been developed under funding from the GVCP:

1. Production for Quality, by Andrew Teubes, describes the technical aspects of grape production in the area around Mir Bacha Kot in the Shamali Plain.
2. Harvesting for Quality, by Andrew Teubes, describes the procedures used to harvest quality grapes.
3. Post-Harvest Handling Manual, by Louw Theron, describes the process of packing grapes in the Shamali Plain.
4. HACCP for Afghan Grape Packing Houses, by Louw Theron, describes the HACCP methodology for assuring that grapes packed in a properly designed and prepared pack house will be safe for human consumption.

To access these and other GVCP documents, see the Roots of Peace webpage:

[www.rootsofpeace.org/resources/project-reports](http://www.rootsofpeace.org/resources/project-reports).

### **3 Introduction**

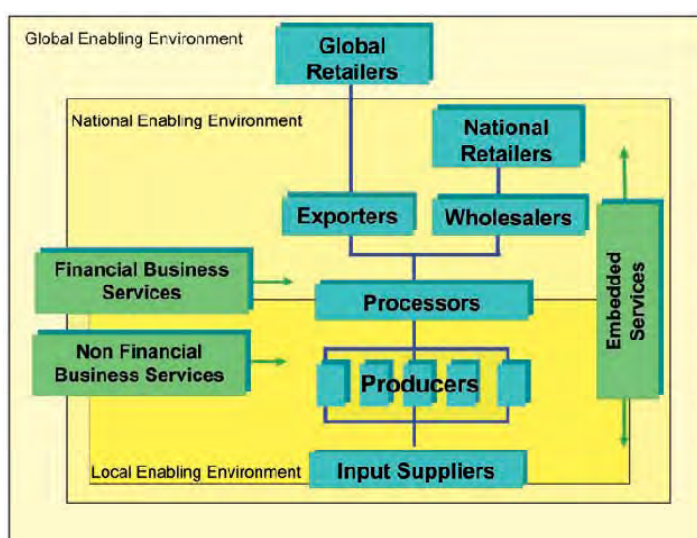
The purpose of this manual is twofold:

- To report on the World Bank Emergency Horticulture and Livestock Project (HLP), Grape Value Chain Project (GVCP) efforts to improve farm incomes and the efficiency of production and marketing activities of the grape value chain centered around Mir Bacha Kot, a village in the Shamali Plain 25km north of Kabul, Afghanistan, and
- To cast the report in the form of an “operations manual” that can be used by others to improve other agricultural value chains.

## 4 An Introduction to Value Chain Analysis

Many good texts exist today on the theory and practice of evaluating and improving value chains<sup>1</sup> and many can be downloaded free of charge from the internet. We provide a listing of value chain references in an annex. Anyone using this report as an operations manual for improving a specific value chain should study several of these texts. Kaplinsky and Morris define a value chain as:

“The *value chain* describes the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use.” Pg 4, Kaplinsky, R., and Morris, M., [A Handbook for Value Chain Research](#).



Daniel Roduner of the Swiss Center for Agricultural Extension and Rural Development provides the diagram shown here of a theoretical value chain in his manual: [Donor Interventions in Value Chain Development](#).

The important components of the value chain are seen in the diagram:

- Blue-colored boxes define the value chain actors that produce and market the product. Input suppliers have been included here; but, they could have been colored green and included with financial and non-financial service input suppliers.
- Green-colored boxes highlight the services or “inputs” provided by financial institutions, such as banks, providing production and marketing loans to producers and marketers. Non-financial business service or “input” suppliers provide technical consultations, business consultations and insurance.
- The three golden-colored boxes, underlying the value chain, highlight the enabling environment of laws, regulations, educational institutions and other government services that support the value chain. An important regulatory factor having enormous influence on the Afghan grape value chain is the set of laws, regulations and practices that define how Afghan products can be marketed in Pakistan. At present, the Pakistani regulatory environment severely constrains the export of Afghan grapes into and through Pakistan. For example, after the grape shipping season got underway this year, Pakistani authorities increased the import tax on Afghan fresh grapes by 70%.

<sup>1</sup> Value chains may also be referred to as sub-sectors or industries.

### **4.1.1 Product Preference Transmission through Prices**

One of the most important lessons from economic theory is that a value chain transmits goods in one direction (from producers to consumers) and information on consumer preferences in the opposite direction. This information is transmitted primarily through product prices. Over time, producers tend to supply the qualities and quantities of products desired by consumers by responding to the higher prices for more highly desired products and lower prices for less desired products. Evidence that the value chain is not supplying the desired products implies that the communication function of the value chain is not working efficiently. And this should stimulate a search for the cause or reason for this inefficiency. This was the case in the Kishmishi grape value chain; namely, that the dominating marketing practice for Afghan grapes in Pakistan was not allowing Pakistani preferences for quality grapes to be transmitted back to merchants and producers in Afghanistan.

### **4.1.2 Price Transmission in the Grape Value Chain**

The standard practice for marketing Afghan Kishmishi grapes (the most commonly produced grape from the Shamali Plain) is to compress 14kg of first, second and third quality grapes into the same box, with a few, best-quality grapes on the top. On the Pakistani market, the grapes receive an average price that reflects the average low quality of the grapes. With this system, there is no incentive to pack a larger percentage of best-quality grapes into the box because all grapes packed in the standard, easily recognizable boxes receive the same average price. Once the grapes are sold in the initial auction market, they are then sorted and sold by grade; and, consumers' preferences are registered—but only to the Pakistani merchants who have repacked the grapes. In this way, the price signals from the secondary markets and consumers are blocked at the auction market and cannot reach the Afghan merchants and farmers. Economic theory suggests that by sorting Afghan grapes into grades at the farm level and packaging them separately, consumers will be able to express their preference for the different qualities of Afghan Kishmishi grapes directly to Afghan producers and merchants through the prices they are willing to pay for Afghan quality. If the grapes are sorted in Afghanistan, these price signals will not be blocked by the Peshawar auction market. Afghan merchants and farmers will then focus their efforts on producing the desired quantities of each quality of grape. Changing the way Kishmishi grapes are packaged in Afghanistan and marketed on the Pakistani market was one of the major components of the action plan implemented by this project.

### **4.1.3 Evaluating Improvements in Value Chain Performance**

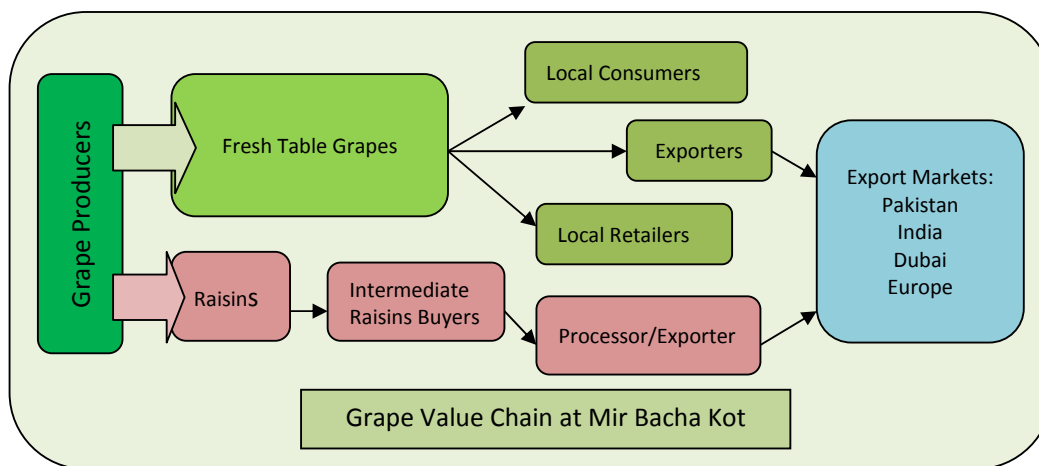
The objective of the Grape Value Chain Project (GVCP) was to improve the functioning of the grape value chain at Mir Bacha Kot. A precise definition of what would be considered an improvement was not set out in the GVCP contract. However, it was well understood that the most important accomplishment would be an increase in the net revenue from grape sales of the participating grape producers. It was also assumed that changes in marketing activities or channels that resulted in increased profits for merchants sufficient that the merchants would consider repeating the activities or continuing to use the marketing channels would be indicative of value chain improvements.

From an economic theory perspective, value chain efficiency can be described as the condition wherein consumers obtain the products they want at the minimum price consistent with paying all actors in the value chain sufficient income to keep them employed in the value chain. This is a rather difficult optimum to test because resource values are constantly changing due to many economic and social forces. Additionally, resource mobility is not adequately flexible to allow a great deal of shifting into other uses in the short term. Their practical lack of information and flexibility in resource use will typically cause value chain actors (farmers and merchants) to adapt slowly to most new opportunities. A price change may be temporarily higher or lower than its longer term position and value chain actors will not radically change marketing actions until they are

relatively confident that the change will persist long enough to repay the investment in making the change. Thus, evaluating improvements in a value chain is not an exact science and conclusions cannot be drawn conclusively in the space of a single marketing season. What can be done is to attempt to measure revenue changes and report as improvements changes in revenue that are “significant” or “impressive” to the participants. Equally important is to report as improvements the reported intentions of the value chain actors in response to GVCP activities.

## 5 Up-Grading the Grape Value Chain

A general approach to improving the performance of value chains (and the approach we used) can be described as follows. Start with a basic understanding of what a value chain is. Then, gather information that will allow a relatively complete understanding of the target value chain. Given sufficient time and resources, this description of the target value chain should describe the actors involved, the products and the costs of producing and marketing the products. A method to organize this data collection process is to physically follow the products of the value chain as they move from producer to major markets. A graphic diagram of the value chain can be helpful in organizing the study, in describing what you have found to value chain actors and stakeholders and as a method of checking the completeness of your description of the value chain. A graphic depiction of the grape value chain in Shamali Plain and near Mir Bacha Kot is shown below. The input suppliers have been left out for ease of presentation.



Gathering information for the value chain analysis should begin with a review of available government statistics on the producers and their products. The government ministries of agriculture and commerce should be visited to meet with key informants, individuals who know the target industry and the available literature. On a visit to the Ministry of Agriculture, Irrigation and Livestock (MAIL) we obtained official statistics on grape production and production area for a recent two year period. The data is collected and managed by the Statistic Office. The table below presents data for 2008. Our Deputy Director for Horticulture, who has worked in the Shamali Plain with us for the past four years, advised caution in use of these statistics. We understand that grape production in Parwan is decreasing as farmers shift into vegetable production. Parwan has only two

	Province	Production		mt/ha
		(mt)	Area (ha)	
1	Kabul	108,000	7,200	15
2	Parwan	138,750	9,250	15
3	Sar-e-Pul	138,150	9,210	15
4	Zabul	175,500	11,700	15
5	Ghazni	121,800	8,120	15
Total national production is reported to be 864,000mt.				

Districts devoted to grape production while Kabul Province has 10 with significant grape production. The war destroyed most of the grapes in Charikar District of Parwan Provinces and much of this district is now devoted to high-value vegetable production. Grape production in the other Parwan district, Bagram, has been seriously damaged by an infestation of cicada. We believe that in recent years Kabul Province is producing significantly more grapes than Parwan Province. The reported production per hectare of 15mt in all cases

<sup>2</sup> Source: Agriculture General Statistics Department, Economic Statistic Directorate, Central Statistics Organization, Islamic Republic of Afghanistan, Mr. Haqiqat Pal, tel 0700-284-879

indicates use of a global standard for calculating the statistics.

<b>Ten Grape Production Districts of Kabul Province</b>	
Districts with significant grape production:	Districts not noted for grape production:
Mir Bacha Kot , Istalif, Guldara, Farza, Shakar Dara, Qarabagh, Kalakan, Diz Sabz, Charhar Asyab, Bagrami	Musayi, Surobi, Khaki Jabbar, Paghman

A search of the literature can turn up existing studies of the target value chain or of studies of related value chains with information that can be used to describe the target value chain. In our study of the grape value chain, we reviewed such “classic” sources of information on Afghanistan agriculture as the FAO, the Altai Consulting Group, the AREUH and reports from international development projects. See the list of references in the Annex. In our particular case, a study of the grape industry (or value chain) around Mir Bacha Kot commissioned by the HLP and conducted by Inter-cooperation provided significant amounts of information and was helpful in confirming perceptions that we had gathered. For example, the study confirmed our experience in the field which had led us to believe that 80% of the grapes produced in Shamali were the small, seedless variety known locally as Kishmishi and sold either as fresh table grapes or as raisins, depending on market conditions. The HLP-commissioned study also confirmed our observations about the primary marketing processes, namely, that a large percentage of the Kishmishi grapes are exported to Pakistan in wooden crates filled with ungraded grapes. It is a common practice to pack the wooden crates with first quality grapes on top, second quality grapes on bottom and third quality grapes “hidden” in the middle. In reality, the lower-quality grapes are not hidden because all buyers are aware of the practice.

## **5.1 Hold Meetings with Stakeholders**

A field study of a value chain should include a series of stakeholder meetings to alert the stakeholders of the project and to gather their input on the functioning of the value chain, opportunities for improvement of production and marketing processes. Stakeholders are the individuals and organizations that have direct interest in the value chain, for example, value chain actors, government organizations and input suppliers. Value Chain Actors are the individuals and firms/businesses actually involved in producing and marketing the products of the target value chain and supplying the inputs needed for production and marketing. Hold separate individual and/or group stakeholder meetings with government, civil government at District and town levels and with relevant line ministries (agriculture, economy, commerce, etc.). Hold separate individual and group stakeholder meetings with merchants at national and local levels. Hold separate individual and group stakeholder meetings with producers. Hold stakeholder meetings with merchants and producers at the local level to stimulate discussion and collaboration among these groups. It may be impossible to hold productive meetings involving competing merchants because they are often concerned about revealing proprietary information to competitors. In spite of this problem, meetings which include “all” merchants should be held to assure that all merchants are aware that the development organization will be dealing with “all” merchants without favoritism.

In our study of the grape value chain, we followed the process described above. The results of our initial meetings and the names and contact information of the people we met with are described in detail in the Annex on page 28. Here we present a brief summary of our findings.

We saw evidence of the traditional tension that exists between producers and merchants. Each side has stories about the misbehavior and dishonesty of the other side; but, each recognizes their mutual dependence and voice a determination to work together. As with any working relationship, meetings between the two sides which allow each to understand better the challenges faced by the

opposite partner helps develop better working relationships. We found that both sides faced problems with finance. Merchants often had to obtain financing through trade credit either from buyers further up the value chain or from the producers who provided their grapes on credit. Producers often obtain production financing from merchants. Mishaps in the production process sometimes result in the loss of the crop and delayed (or no) delivery from the producers or repayment from merchants. These mishaps are the natural result of doing business in a risky environment and highlight the importance of establishing long-term relationships with reliable business partners. Reliable producers are sought after by merchants and can generally obtain production financing on attractive terms. See the Annex section on credit (page 34) for more detail.

Our advice to both producers and merchants is to take steps that increase the competition among producers and product buyers and input suppliers so that the best trade terms are developed and made available to all. Increasing competition means increasing the number of buyers and sellers in any market or competing for any transaction. To increase competition, it is important to increase the amount of information easily available to both producers and merchants. Holding stakeholder meetings or marketing fairs are important means of increasing the amount of information available to potential actors. Organizing into producers or merchant associations and sharing information among members and across organizations is another important means of increasing the amount of information available to all actors and stakeholders. Visits to input suppliers (financial, non-financial and physical inputs) by committees representing the producer and merchants organizations are useful in negotiating favorable trade terms for desired inputs. Organizing visits to the producing region and to individual producers by prospective buyers is another method of expanding the level of competition.

## **5.2 Visit the Production Process, Design and Implement Tests**

The foundation of a value chain is the production process that generates the products marketed through the value chain. Understanding the production process is a technical matter that requires specialized training and experience gained from years of work in the target region and with the target crop. This level of expertise is often not available in the team of development specialists engaged to make improvements in the target value chain. The best that can be done is for the value chain team to engage a specialist to visit the farmers in the targeted production areas and associated public officials (ministry of agriculture, universities, and international development organizations) and develop a report of the condition of the production process with any recommendations for up-grading it. Then, in collaboration with the target farmers and merchants, the team should design and implement tests of recommended changes in production practices with potential for substantially improving production efficiency.

In the case of the grape value chain, we were well-informed about the current status of the grape production process because our staff had been closely involved with previous efforts to increase the productivity of grape production near Mir Bacha Kot. For example, we knew that productivity can be increased substantially by:

- Installing trellising on existing, non-trellised vineyards.
- Applying certain Integrated Pest Management practices to control common diseases, especially, Powdery Mildew.
- Applying Gibberellic Acid to increase the size of the grape berries.

This GVCP began implementation in June thus it was too late in the season to apply agricultural chemicals to control diseases or to install trellising. However, we were able to expand use of Gibberellic Acid (Gib).

### 5.2.1 Tests of Use of Gibberellic Acid

Gibberellic Acid (Gib) is a naturally occurring grape hormone that controls the size of grape berries. It is produced by grape seeds. Gib is either extracted from grape seed or produced synthetically and applied to seedless grapes, such as Thompson Seedless, to increase the berry size. Increasing the berry size also means that the weight of the grapes produced in treated vineyards is increased substantially. More weight typically means more revenue. The GVCP staff met with farmers and merchants and received their support for testing the use of Gib on Kishmishi grapes. The use of Gib was not common in the Shamali Plain near Mir Bacha Kot at the time of our project. Most of the participating farmers had not used Gib previously. GVCP staff engaged the assistance of ROP and HLP horticulturalists to organize trainings for participating farmers on the use of the chemical. Then, appropriate supplies of the chemical were distributed to those farmers wishing to test its use. 142 farmers participated in the training session. See a detailed report of this training activity in the Annex on page 29. Results of the tests were quite favorable and were related to the increased weight of total grape production per vine and also to the increased size of the resulting fresh grape berries and resulting raisins. Larger berries tend to attract better prices in both the fresh and raisin markets.

#### Impact of Use of Gib on Fresh Grapes

Mr. Sardar is one of the grape producers who sold grape to Afghan Dost Company for export to Karachi. He said that after he applied GIB in his vineyard he received double production from each vine. Another farmer reported a 60% increase in crop weight. A study by the Perennial Horticulture Development Project, funded by the World Bank Horticulture and Livestock Project reports a 61% increase in weight and 28% increase in price of grapes treated with GIB when compared to grapes not treated with GIB.<sup>3</sup>

Mr. Sardar also reported that the grapes treated with GIB sold for 110Afs per *ser* (7kg) while grapes which he had not treated with GIB sold for 70Afs per *ser*. That is an increase in price of 57% for the GIB-grapes in comparison with the non-GIB-grapes. The combination of increased weight and price should result in the grape producer's revenue or income from his grapes increasing significantly. Assuming that the increase in price was 57% and the increase in weight was 60%; the increase in revenue from grapes treated with GIB would be more than double the revenue from grape not treated with GIB. This can be seen in the following equations.

$$\begin{aligned} \text{revenue} &= \text{price} * \text{quantity} \\ \text{revenue} &= (1.57) * \text{price} * (1.60) * \text{quantity} \\ \text{revenue} &= (1.57) * (1.60) * \text{price} * \text{quantity} \\ \text{revenue} &= 2.51 * \text{price} * \text{quantity}. \end{aligned}$$

#### Impact of Gib on Raisin: Increase in Weight Produced, Reduction in Local Price

Mr. Sadar converted the lower quality grapes from his vineyard into raisins. He reported that his Gib-raisins sold for 200Afs per *ser* (7kg) while his raisins made from grapes not treated with GIB sold for 300Afs per *ser*: a 33% reduction in price. Since the production of the Gib raisins was double that of the production which he received from his traditionally produced grapes, he made better money from his Gib-treated grapes/raisins. The combined effect of a doubling of production plus a 14% increase in raisin weight due to the better conversion ratio (3.5/1 vrs 4/1) is a 1.28% increase in raisin weight. His revenue from Gib-raisins should be 53% higher than what he would have received from vines and grapes not treated with GIB:

$$\text{revenue} = (.67) * \text{price} * (2.285) * \text{quantity}$$

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<sup>3</sup> Gibberellin application on table grape (Keshmeshi) in the Shomali Plain (Guldara District), Kabul, Afghanistan 2008. PHDP, 2008. Contact Greg Cullen, [gicullen@gmail.com](mailto:gicullen@gmail.com)

$$\text{revenue} = 1.53 * \text{price} * \text{quantity}.$$

#### Impact of Gib on Raisin: Increase in Weight Produced, Possible Increase in Export Price

Hajji Rahim Khan of Baba Qushqar Mir Bacha Kot, Ltd., predicted that the English market will purchase much of the Gib-treated raisins because they will meet the size requirements of that market. He explained that during the cleaning process at local factories, the largest raisins are sorted out for the English market. He suggested that farmers be encouraged to dry the Gib-raisins on tarpaulins or some other structure that would prevent the accumulation of soil that occurs in the current practice. He predicted he would be able to pay 50% more for these larger, cleaner raisins than the current Russian-market price. (This company has a contract for the export of 3,000mt of raisins to Russia.)

#### Impact of Gib on Fresh Grape and Raisins

The two tables below show the difference in gross profit between Gib-grapes, Gib-raisins and traditional fresh grapes and raisins. Clearly, the message is that Gib-treated fresh grapes are the most profitable form of Kishmishi grapes. Note that the data in the second table represents the average results for the fresh, Gib-grape merchants.

<b>Farmer Cost and Returns from Kishmishi Sun Dried Raisins and Fresh Kishmishi Grapes</b>				
Activities	Total Cost and Returns (US\$ per jerib or .2ha)			
	Fresh Grape		Sun Dried Raisin	
	With Gib	Without Gib	With Gib	Without Gib
Pruning	\$18	\$18	\$18	\$18
Sulfur	\$28	\$14	\$28	\$14
Cost to Apply Sulfur	\$18	\$12	\$18	\$12
Fertilizer	\$54	\$48	\$54	\$48
Cultivation (shoveling)	\$60	\$60	\$60	\$60
Gib tablets	\$12	\$ -	\$12	\$ -
Labor to apply Gib	\$18	\$ -	\$18	\$ -
Irrigation	\$150	\$98	\$150	\$98
Labor for Harvest	\$18	\$12	\$18	\$12
Truck to Qalabagh			\$10	\$10
<b>Total Expenses</b>	<b>\$376</b>	<b>\$262</b>	<b>\$386</b>	<b>\$272</b>
Total Production (w/o farmer profit)	4,500	2,700	1,385	771
Farm Gate Price	\$0.22	\$0.19	\$0.47	\$0.56
<b>Total Revenue</b>	<b>\$968</b>	<b>\$508</b>	<b>\$651</b>	<b>\$432</b>
Farmer Profit	\$98	\$41	\$44	\$26
<b>Gross Profit</b>	<b>\$494</b>	<b>\$205</b>	<b>\$221</b>	<b>\$134</b>
<b>Gross Profit Margin</b>	<b>51%</b>	<b>40%</b>	<b>34%</b>	<b>31%</b>

## 5.2.2 Tests of Raisin Production Techniques

Merchant Cost and Returns per Metric Ton on Kishmishi Grape and Raisin			
Activities	Total Cost and Returns (\$USD)		
	Fresh Grape		Sun Dried Raisin
	Gib Fresh Grape	Fresh Grape	Raisin Mixed with Gib Raisins
Farm Gate per Mt	215	188	560
Bags/ Packaging	85	68	4
Harvesting and Packing	18	12	
Transport to Kabul	14	14	11
Kabul Municipality Tax	3	3	7
Transport to Pakistan	74	22	
Unloading in Raisin Factory			2
Washing			140
Loss of weight at washing (15%)			84
Loading and Transport from Kabul to Hiratan			40
Custom Duty in Pakistan	46	46	
Clearing Agent in Turkham	2	2	
Labor for Unloading	2	2	3
Public Market Fee	1	1	
Commission Agent Fee	41	24	
Total cost	501	382	851
Revenue	659	386	950
Gross Profit per Mt	158	3.58	99
Gross Margin	24%	1%	10%

In the past, the primary market for Kishmishi grapes from the Shamali Plain was raisins. Over time, the price for raisins in comparison with the price for fresh grapes has changed in favor of fresh grapes. Still, the option to sell Kishmishi grapes, in raisin form, provides farmers with an alternative market should the grapes not be sold as fresh grapes. This year conditions in the grape value chain have caused many farmers to decide to market their Kishmishi as raisins. The crop of Kishmishi grape in Shamali Plain has been significantly larger than prior years due to increased supplies of irrigation water being available. At the same time, the increased levels of water in vineyards has led to higher levels of fungus and larger amount of fresh grape that are not of sufficient quality to market as fresh grapes. Farmers participating in the GVCP asked for assistance in trying new methods of drying grapes into raisins. The GVCP assisted farmers test two drying techniques:

- Use of potassium carbonate dipping oil to speed drying, and
- Enhanced solar drying via plastic sheeting.

### Potassium Carbonate Dipping Oil Results

Potassium carbonate is used world-wide in raisin production and is available in local agricultural input supply shops. The dipping oil causes small cracks in the grape skin that allow for faster outward movement of the moisture in the berry. GVCP staff engaged Hajji Sultan Hamid, ROP Horticulturalist

to provide training to the farmers interested in testing the use of dipping oil for the production of raisins. One of the motivations for the farmers was the timing: they had held their grapes on vine longer than usual (longer than they would have if they had planned to produce raisins at the beginning of the season) and wanted to complete the drying process as quickly as possible. Sixty-four farmers participated in the training. Farmers reported that the use of dipping oil resulted in a portion of the resulting raisins having a clear, yellow color rather than the traditional dark black color. One farmer reported that he was able to sell the yellow raisins at a higher price than normal raisins after he sorted the yellow raisins from the darker colored raisins.

### **Enhanced Solar Drying with Plastic Sheeting**

The traditional practice for drying raisins in Shamali Plain is to place the fresh grape directly on the ground, often on ground which has been cultivated and is barren of grass or other ground cover. After the grapes are dried, the raisins are swept up and bagged for storage or transport. The result is a raisin that is practically covered with soil. The raisins are sold to intermediaries in local markets and transported to Kabul or Charikar where they are washed, graded and then packaged for transport to international markets. Raisins destined to Europe are washed and dried twice. The remaining grit-load is often too high to meet international market standards and the raisins are washed again after arriving in the international market. The obvious solution is to dry the raisins in a way that they do not touch the soil and pick up soil particles. However, as in the case of fresh grape marketed to Pakistan, the marketing system is not set up to provide differential prices to raisins that have been given extra care. The system assumes that all raisins have been dried on the ground. A buyer cannot pay extra for raisins that will be mixed into the industrial quantities that are required for servicing the international markets. On a smaller scale, farmers may be able to sell to specialized markets handling smaller quantities of raisins without being processed. A test of specially packaged raisins dried under conditions that would protect them from exposure to the soil is justified.

In response to the current situation, we decided to join an effort to develop a practical system for drying raisins that would keep them as clean as they were as they come off the vine. An international NGO was providing tarps to place on the ground before laying the grapes. Raisins dried with this system were destined for a test of a Fair Trade market through the raisin processor at Charikar. We decided to go one step further and cover the raisins with a tent of clear plastic. By arranging the plastic such that a gap was left at the ridge of the tent and also as series of gaps at the bottom edge of the tent, we set up a solar powered air circulation system that pulled the moisture-laden air away from the drying raisins. See photos below. The reduced the time required to dry the raisins and reduced their exposure to wind-blown dust and rain. These advantages may be attractive enough to farmers for them to adopt the system to dry raisins for the standard, “industrial” market. If this occurred, the traditional practice could be replaced and the quality of the standard industrial raisin could be substantially increased without a significant increase in costs and Afghan industrial raisins will become more competitive on its traditional markets.

**Plastic tent installed with grapes on plastic**



**Completed tent system, using no electricity**



### **Summary of Results and Recommendations for Raisin Production**

Raisins from Kishmishi grapes continue to be a major component of the grape industry in Shamali. They provide the primary market for certain farmers and an important alternative market for others. Future publicly-funded efforts to improve grape farm income should continue to assist farmers understand the options for producing raisins. These options include the use of dipping oil to create higher-value, yellow raisins and the use of some apparatus or technique to dry raisins without direct contact with the soil. In other raisin-producing countries, raisins are dried on paper or on racks. See attached photo of raisin-drying racks in South Africa.

**Raisin and other fruit drying racks in South Africa**



Photo by L. Theron

**Grapes drying on soil, Bagram 2005**



Photo by J-P. Détry, PhD

The problems associated with the use of racks in Afghanistan include the lack of land that can be devoted to racks (see photo of raisins drying above). The current system of drying on the soil makes efficient use of the land because the drying spaces are used to produce crops before and after being used for drying raisins. The option of placing the drying racks on hillsides or other non-agricultural land is flawed because it would require engaging someone other than the farmer to manage the drying racks and raisins. A possible solution would be for groups of farmers to jointly own and manage the drying racks. A second possibility is for a merchant, who is purchasing the crop of fresh grapes from farmers, to own and operate a drying rack. Those grapes that do not meet fresh market standards could be transferred to the drying racks. It is possible that the person most likely to establish a raisin drying rack will be a major raisin merchant because they may have the scale of operations to manage a drying operation. The option of drying racks should be discussed with farmers and merchants.

The plastic sheet tent tested by the GVCP staff this year should be further tested. The results this season were not encouraging. However, the test was started late in the season and rain and cool weather reduced the effectiveness of the tent. The use of plastic sheet tents, erected over raisins spread on plastic mats (to protect the raisins from contact with the soil), may add enough advantages, in terms of rapid drying and protection from wind-blown dust, to warrant their use.

### **5.3 Visit the Target Markets, Design and Implement Tests**

Visit the major markets for the target products and observe how the markets function. If possible, have representatives of the merchants and producers from the target value chain accompany project staff during these visits. Follow the flow of the product from farm to market and record the costs of production and marketing at every “level” in the value chain. A “marketing level” can be described for these purposes as a place where the product changes hands. If possible, arrange for

merchants from the target market to visit merchants and farmers in the “home” markets and production areas.

The GVCP staff organized a visit to Afghanistan by Pakistani buyers currently buying fresh grapes from the Mir Bacha Kot region. However, after arrangements had been made, the Pakistani merchants declined to come due to their perceptions of the security situation in Pakistan and Afghanistan. This occurred about the time of the Afghan Presidential election when violent activities had increased. Additionally, the GVCP Marketing Specialist was able to meet some Pakistani merchants during their visits to Kabul grape merchants and invited them to visit ROP offices, the project area and discuss grape marketing challenges and opportunities. For example, on June 13, a meeting was held with Mr. Hassan, Tel 0092-300-5902165, Islamabad, Pakistani trader and Afghan fresh fruit traders in ROP office to find out about Pakistan markets requirement. Mr. Hassan told us that the Pakistani market appreciated Gib-treated Kishmishi grapes and recommended better grading and packaging. Mr. Hassan accompanied the Kabul merchants and the GVCP Marketing Specialist to the MBK center on June 14 and visited farmers and vineyards.

On June 24, a meeting was held at ROP office with Hajji Safar Khan, tel 0092-345-886-7301, a Peshawar Pakistani trader. He provided information regarding Pakistan fresh fruit market needs. He said that grapes are now being imported from Afghanistan in paper cartons to the Peshawar market; but, for longer distances into Pakistan, wooden crates are better. The preferred grape quality is sweet, slightly yellow in color. Good grapes will receive 200Rps more per 14kg than traditional grape quality. Once a shipper establishes a quality reputation, he attracts and holds customers.

GVCP staff led a group of Afghan merchants to the major markets of Pakistan: Peshawar, Islamabad and Lahore. See details of this visit in the Annex on page 30. They met with the representatives of the merchants in those markets and with specific merchants who traditionally purchase Afghan grapes. The Pakistani merchants explained the marketing process and their observations about Afghan grapes in relation to grapes from other regions, such as, China, USA, etc. It was through this visit that GVCP staff and the accompanying merchants understood the poor competitive nature of Afghan grapes and the dysfunctional nature of the existing marketing system.

Afghans complain about the poor prices paid by Pakistani merchants for Afghan grapes. Pakistani merchants complain about the poor quality of the Afghan grapes. A story, told by an Afghan grape producer during one of our stakeholders meetings, illustrates the problem. He visited the Pakistani market and complained about the price. The Pakistani merchant asked that a typical package (wooden box) of Afghan grapes be brought and opened before the Afghan trader. Once the grapes were sorted into two groups of good and poor quality grapes, the Pakistani merchant asked: “Would you eat the grapes in the poor-quality group?” The Afghan trader responded: “Certainly not.” “Then, responded the Pakistani merchant, “how can you expect us to pay you a good price for a box of grapes that contains this many poor quality grapes?” With this story we understand one side of the problem, namely, that a significant proportion of the grapes in the standard box are of poor quality; so, Pakistani merchants refuse to pay good prices for the standard box of grapes.

During their trip to Pakistan, our GVCP staff and accompanying merchants learned that after the grapes arrive in Pakistan and are sold on an auction market for a price that reflects the fact that poor-quality and good-quality grapes are sold together in the same box, the grapes are then sorted into three grades: high quality, second and third qualities and sold on interior Pakistani market as sorted grapes. This allows the secondary Pakistani buyers to pay different prices for the different grades of grapes. Often the combined revenue from the separate sales is greater than the revenue that would be obtained if the grapes were sold together at a relatively low average price. The

obvious solution is to sort the grapes into grades at the Afghan farm level so that the farmer can earn the specific prices for each of the qualities of grape that he and his family have produced. He can then decide if it is worth the effort to produce high-quality grapes or lower-quality grapes or a combination of the two with alternative by products, such as raisins.

Economic theory predicts that the farmer will make an effort to produce those qualities and quantities of grapes that allow him to maximize net income from his farm. If the land and human resources at his disposal are capable of producing high quality grapes, it is likely that he will produce high-quality grapes, especially, if this requires only a little increased effort beyond what is required to produce lower-quality grapes. By sorting at the Afghan farm level, the marketing system will allow the preferences of Pakistani merchants and consumers to be transmitted back to the Afghan farmer and the Afghan farmer will specialize in producing the quality grapes that he can produce for the highest net revenue. The Afghan farmer's objective of being paid good prices for good quality grapes will be achieved.

### **5.3.1 Marketing Un-Chilled, Graded Grapes on Interior Pakistani Markets**

After understanding the dysfunctional nature of the current fresh-grape marketing system and the suggested solution (through meetings with the GVCP staff and the Afghan merchants), both the Afghan producers and the Afghan merchants decided to test the idea of marketing sorted grapes. They would do this by test marketing a new package of Afghan grapes. Everyone agreed that a completely new box would be necessary to signal to the Pakistani buyers that the grapes inside were different from those found in the traditional wooden box. Fortunately, a new paper box (or carton) had just been introduced for sale to merchants. To assist the merchants in testing this new box, the GVCP agreed to purchase a quantity of the new cartons and make them available to the merchants at a subsidized price that is equal to 50% of the delivered cost of the box. This helped because the merchants did not have to buy relatively small quantities of the boxes at relatively high prices and manage the process. By buying for the whole group of merchants at the same time, the GVCP could get a favorable price and delivery cost for the boxes.

The new carton appeared to be strong enough to transport the grapes from Afghan vineyards to Pakistani consumers and have the carton and the grapes arrive in good form. The merchants agreed to pack only 7kg of grapes into the box and to put their names (and reputations) on the boxes with stick-on labels provided by the GVCP. The merchants also agreed to follow GVCP staff recommendations on the quality of grapes packed into these boxes. The GVCP recommendations included recommendations on harvest procedures and on procedures to trim any poor quality berries off the clusters before packaging. The GVCP sold the cartons to the merchants at the full, unsubsidized price. Then, after the merchants showed that they had followed GVCP recommendations on packing quantity and grade into the boxes, the GVCP staff refunded to the merchants the agreed 50% value of the cartons. See photos below of one participating merchant's grape packing operations. The GVCP supported this operation with tents to shade the packaging operations, hand tools, harvesting baskets and training.

**Packing in Shade tent provided by GVCP**



**Boxes & Labels provided by GVCP on 50% subsidy**



Transporting grapes to the in-field packing center.  
Harvest baskets provided by GVCP.



Workers cleaning and packing grapes at in-field center



Transporting packaged grapes to shade structure



Idrees Mojeeb Ltd grape ready for export to Islamabad



It is important to emphasize that the subsidy provided by the GVCP to the merchants was a minor portion of their cost for testing the suggested marketing system. We believe that it is important that the subsidy be kept relatively low to assure that the merchants fully support the test and are not simply doing the test to earn money from the GVCP. This also helps assure that the merchants participating in the project are truly merchants and not simply entrepreneurs attracted by the benefits of the GVCP. Having bona fide merchants involved assures that the benefits or good results of this project will continue to be used to serve the Afghan people after the project is completed.

The GVCP staff have made sure they are working with active merchants by working with merchants who are recognized leaders of the Kabul Fresh Fruit Marketers Association, an association recognized by the Government and actively participating in such Government-managed marketing activities as the Government's market data collection system. Note the affiliations of the participating merchants in the Annex on page 32. The merchants participating in this project regularly provide data on their marketing activities to the Government.

Kishmishi Grape Export to Pakistani Markets (October 2009) (figures are USD per metric ton)							
Materials and Services	7kg paper carton in Peshawar	7kg paper carton in Islamabad	14Kg wooden crate in Peshawar	13kg wooden crate in Islamabad	7kg carton in Karachi	7kg plastic bags in Peshawar	
Product Identification Number	1	2	3	4	5	6	
Farm gate price (\$/mt)	198	215	179	215	215	142	
Packaging cost	85	85	52	52	85	69	
Harvesting and packing cost	14	15	10	13	28		
Truck rent from vineyard to Kotal village or MBK for loading to big truck	14	14	14	14	11		
Kabul municipality tax	3	3	3	3	3		
Transport to Peshawar or Karachi	22	22	22	22	135		
Previous Paksitan Custom Duty	31	31	31	31	31		
New Custom Duty in Paksitan	46	46	46	46	46		
Clearing agent in Turkham	2	2	2	2	2		
Labor cost in Peshawar or Karachi	2	2	2	2	2		
Transport of Peshawar to Islamabad		26		17			
Market entry fee	0.13	0.20	0.13	0.20			
Market fee	0.41	0.57	0.41	0.57			
Commission agent fee	27	35	21	32	40		16
Total cost with old custom duty	398	450	336	403	551		227
Total cost with new custom duty	413	466	351	418	567	242	
Revenue from sales (price per mt)	429	497	343	450	659	257	
Revenue minus costs with old custom duty	30	47	7	48	108	30	
<b>Margin with old duty</b>	<b>7%</b>	<b>9%</b>	<b>2%</b>	<b>11%</b>	<b>16%</b>	<b>12%</b>	
Revenue minus costs & new custom duty	15	31	-8	32	92	15	
<b>Margin with new duty</b>	<b>4%</b>	<b>7%</b>	<b>-2%</b>	<b>8%</b>	<b>16%</b>	<b>6%</b>	

#### Results of the Tests of Marketing Un-chilled Grapes Interior Pakistani Markets

The table above provides a comparison of the results from the tests of GVCP proposed marketing techniques and the traditional marketing technique. The results show a positive increase in sales margin (sales minus cost) for improved packaging, graded grapes as compared with the traditional practice. Compare, for example, the Margin for Product 4, 13kg of graded grape in a branded/labeled wooden crate with that of Product 3, the traditional package with 14kg of mixed-grade grapes in an unmarked wooden crate. The Margin for Product 4 is 8% while the Margin for Product 3 is negative 2%. Also, compare Margins for Products 1&2, which are totally new packages (7kg of graded grapes packed in a distinctively new, branded/labeled carton) with the Margin for

Product 3, the traditional wooden crate packed with 14kg of mixed grade grapes. The Margins for the GVCP products (1&2) are positive, while the Margin for the traditional product is negative.

The participating merchants saw the results in the context of the overall grape deal this year. This year grape production from Shamali was significantly higher than last year because of increased supplies of irrigation water. Grape quality, in general, was lower than last year due to the increased humidity in the vineyards (due to the extra water). There was a great deal of competition from farmers acting as traders and taking grapes to the Pakistani markets in search of an attractive market (due to the depressed prices in Shamali). Then the Pakistani authorities increased the tax on grapes imported from Afghanistan by nearly 70%. Thus, there were numerous causes for marketing profits to be depressed this year. While the participating merchants recognized the benefit of the market tests led by the GVCP, their attention was focused on the big picture. The real value of the GVCP tests will be seen only next year in the actions of the merchants. If they continue to use the marketing techniques tested this year, this will be proof that the tests were valuable. If the marketing techniques are continued to be used, it is reasonable to believe that they are resulting in better incomes for both farmers and merchants. Continued use of grading will allow the price signals from consumers to reach the farmers and it is reasonable to believe that the efficiency of the grape value chain to deliver the products desired by consumers will be improved. The table below provides some comments from participating merchants.

Merchant	Comments
Idrees Mojeeb	One of our participating merchants, Idrees Mojob, Ltd, exported GIB-treated grape to Islamabad using 7kg cartons supplied by the GVCP. In spite of the increased profits in comparison to the traditional package, he was not very happy from his grape export business. He said that due to low quality grape and the Pakistani tax increase, they couldn't make any profit. They mentioned that the ROP new system was better than the old system but still it is not very good with the new Pakistani tax.
Alime Bakhshinda	Alime Bakhshina was also one of those companies who exported past Peshawar to Lahore in October. The company is not happy with the grape deal this year. Mr. Akim, President of this company, said that they had a lot of loss in the Peshawar market this year. He said because the smaller-scale, Afghan traders and farmers could not sell their grapes to other merchants in Afghanistan; they took their grapes to Peshawar, packed 7kg in plastic bags. The volume of these poor-quality grapes had a negative impact on the value of Afghan grapes in the Pakistani market. Mr. Akim said he appreciated that the GVCP found another market [Karachi] for the Shamali grape with good opportunities. He said their company will work to export Shamali grape to Karachi next year.
Khalid Shikeeb	Khalid Shikeeb Company also exported 16mt to Islamabad. They said the result of the shipment was not very good because of the quality of the grape was not good enough this year. He reasoned that is why they are not making good profits this year.
Abdul Qudus	Afghan Dost company exported 465mt of grapes in participation with the GVCP. Abdul Qudus said that GVCP program was one of the most effective programs in Afghanistan. He said this was the first time that Shamali grapes had been exported to Karachi in significant quantities. He requested ROP to work with traders on the grape export to Dubai and other countries in 2010.

Although the test of the acceptance of graded Kishmishi grapes on the Pakistani market was the primary test designed for implementation in the GVCP, the Project’s commitment to participatory principles assured, from the beginning, that we would respond to producers’ and merchants’ suggestions to test other production or marketing ideas with potential to improve the performance of the grape value chain. Accordingly, the GVCP ran tests of the following ideas:

- Un-chilled shipment of grapes to India
- Chilled shipment of grapes to Karachi.

### 5.3.2 Marketing Un-Chilled Grapes to India

The GVCP Marketing Specialist alerted participating merchants that air freight rates being offered by Ariana Air Lines and prices on the New Delhi market created a potentially profitable marketing situation. One of the participating merchants decided to test this market channel. The merchant made two trial shipments totaling 40mt to India and made relatively good money. See the table below and compare with the Margin on Product 5 in the table on page 16. Specifically, the margin per metric ton was higher than that of the shipments to Karachi. Note that this remains true even after adjusting for the 50% subsidy provided on the cartons by the GVCP. The low air freight rate of \$200/mt is the key to making this deal attractive. The merchant indicated there was some difficulty getting the grape through airport security systems and through Indian Customs. Additionally, he stated that the volume of shipments possible was limited due to space on the aircraft; however, he expected to continue marketing grapes this way whenever the opportunity (provided by relatively low air freight rates) occurs in the future.

<b>Export to India of 1mt Un-chilled Shundulkhani Grape to India by Air</b> (US dollars/mt)	
<b>Item</b>	<b>US\$</b>
Grape farm gate value	\$ 506
Damaged grapes	\$ 5
Best quality cartons on 50% subsidy from ROP	\$ 167
Labor for harvest	\$ 40
Packers	\$ 20
Packing paper, sealing tape and ropes	\$ 3
Moving the grape from vineyard to truck	\$ 7
Transporting form MBK to Kabul Airport	\$ 17
Loading and unloading	\$ 3
Kabul Airport custom duty and clearance charges	\$ 72
Air transport from Kabul to Delhi	\$ 200
India custom duty, transport to market and market charges	\$ 928
Total cost	\$ 1,968
Sold in India fruit market	\$ 2,243
<b>Margin</b>	<b>\$ 275</b>
<b>Margin Percent</b>	<b>12%</b>

### 5.3.3 Marketing Chilled Grapes to Karachi

The export of Shamali grape to Karachi in refrigerated, 40’ “reefers” was the leading success of the GVCP. Most of these grapes were Kishmishi grapes treated with GIB. This achievement is a result of the good partnership developed between the merchant, Abdul Qudus of Afghan Dost Company and our GVCP Marketing Specialist, Sharif Osmani. Qudus approached our office with the idea of

shipping grape to Karachi after he found out that there were numerous reefers in available in Kabul. Having being shipped from Karachi, there was a need for the reefers to be returned to Karachi. Most of the time, they were returning empty to Karachi due to the lack of cargo for the return trip. Qudus hired one of these containers and asked the GVCP for assistance in filling it with fresh grape. GVCP staff supplied training on selection, grading and packing the grape. The first shipment resulted in a loss for the merchant for several reasons, the most important of which was the fact that Southern Afghanistan was still harvesting grape and supplying the Karachi market. Sharif Osmani helped Qudus evaluate the situation with a simple income statement and an analysis of costs and prices. He explained that once the Kandahar grape harvest was completed, prices for fresh grape would increase. He also helped the merchant negotiate a 17% reduction in the rental price of the reefer. The result of the evaluation was encouraging and the merchant decided to try another shipment later in the season. This second shipment was profitable and the shipments have continued.

The GVCP staff pushed the exporters to increase their exports to Karachi when it became obvious that the markets of Peshawar, Lahore and Islamabad were over-supplied with grapes and offering relatively low prices this season. The GVCP staff trained the merchant and his staff on improved field packaging techniques which have allowed the merchant to pack improved-quality grapes in the vineyard. The GVCP provided plastic harvest baskets, harvesting scissors or pruners, a tent to shade the grapes and training on trimming the poor quality berries off the grape clusters before packaging. The exporter also followed GVCP staff advice to pack only high-quality grape into the cartons and avoid the traditional practice of packing lower quality grapes in the bottom of the box. In order to fill the reefer to capacity, the boxes of grapes must be stacked in 14 layers. Knowing that the paper cartons being used could not be stacked over ten boxes high, the GVCP Marketing Specialist and the exporter designed a wooden box strong enough to be used on the first four layers of the stack of boxes in the reefer. They also designed the box to hold only 7kg of grapes due to their concern that the traditional larger box used in Shamali and holding 14kg of grapes would not protect the grapes. Grapes in the 14kg box are often damaged during transport as the weight of the upper grapes crushes the grapes in the lower area of the box. The 7kg box has a shorter layer of grapes between the top and bottom so that damage between the grapes is lessened.

As the weather turned cooler, the export company (Afghan Dost Company) was able to move out of the Mir Bacha Kot (MBK) pack house because the MBK cool rooms were no longer needed. GVCP showed the exporter how to store the boxed grapes in shade at their Moshwani village location and to minimize storage time before shipment. Because the grapes would be sold quickly in Karachi, taking costly measures to increase the shelf-life of the grapes was not advised. Harvesting early in the morning when the grape temperatures were low (15°C), packing under shade to reduce heat build-up, storing the boxed grapes for only a short period (less than 12 hours) under shade and then shipping in a refrigerated container or “reefer” appear to be adequate for servicing the current Karachi market. Using these techniques, twenty-three, 40’ refrigerated containers of grape were exported to Karachi by Afghan Dost Company this season; the total weight of the grapes exported was 425mt.

#### Results of the Test of the Karachi Market

GVCP staff have shared this information with the other merchants and three have announced their intention of shipping to Karachi in reefers next year. It is clear that this marketing channel will be further tested next season with or without publically-funded projects such as GVCP. This new market channel is very important for the Shamali grape industry because it provides an additional outlet for Shamali grapes, especially important when the Pakistani markets are over-supplied. More important for the longer term growth of the industry, establishing this link to Karachi is an important step toward developing a profitable marketing channel to the port at Karachi. Once on-board a ship, the

Shamali grape value chain actors will have access to world-class markets, such as Dubai and Mumbai. With improved production techniques to produce world-class quality grapes and the extension of the market connection established via the GVCP, the Shamali grape industry could market grapes on several, international markets.

### 5.3.4 Raisin Marketing Tests and Efforts

GVCP staff and stakeholders worked on two marketing efforts:

- Reopening the Mir Bacha Kot raisin market after more than thirty years of closure.
- Directly linking three raisin traders, to participating farmers. The participating traders names and contact points are given in the following table.

Raisin Traders Participating in the Reopening of the MBK Raisin Market		
Name	Company name	Contact
Hajji Rahim Khan	Baba Quchqar MBK, Ltd	0799-232274
Fakir Ahmad	Shikhan Baqa Bik, Ltd	0794-386-877
Abdul Bassir	Tabassom Ltd	0772-214865

Prior to the war, there was a large raisin market at Mir Bacha Kot (MBK), just 25km north of Kabul. During the war, the market was shifted to Qarabagh which is 35km north of Kabul and still it is active there. The raisin merchants from Kabul pass through MBK to reach Qarabagh and farmers from MBK must take their raisins to Qarabagh to find a wholesale market for their raisins. Farmers could sell small quantities of raisins to merchants in MBK; but, there is not a large patio and concentration of merchants buying wholesale quantities of raisins. After discussions with three MBK raisin buyers and MBK raisin producers, the GVCP Marketing Specialist convinced the raisin buyers to start buying wholesale quantities raisins directly from MBK raisin producers and to re-open wholesale buying stations in the MBK market place. Together, they approached the Governor of MBK and obtained his support and approval for finding a suitable space for the wholesale raisin market within MBK. The Governor gave his support; but, the space for the wholesale market has not yet been found. The current problem is that the three raisin traders have their buying stations in separate places which make it inconvenient for raisin producers to negotiate prices with all of the buyers without moving their raisins from shop to shop. See photos of the newly opened raisin buying shops in MBK.

**Baba Quchqar MBK, Ltd raisin shop in MBK**



**Shikhan Baqa Bik. Ltd raisin shop in MBK Bazaar**



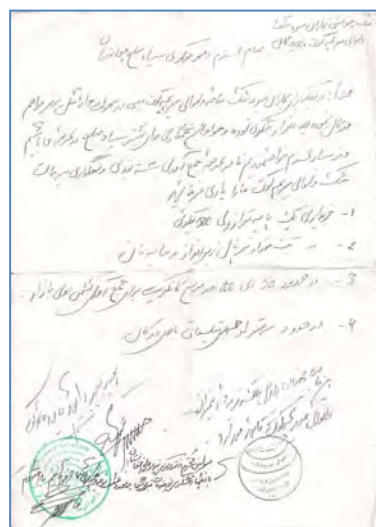
**Tabasoom Ltd raisin shop in MBK Bazaar Raisins being loaded in ROP truck at farmer's home.**



GVCP staff assisted buyers from the three MBK raisin buyers to meet with MBK raisin producers. The buyers then made arrangements to come to the farmers' homes to pick up the raisins. The buyers took advantage of the visit to the farms in the GVCP truck to haul purchased raisins back to MBK. Both farmers and merchants were pleased with the arrangement.

**Results of the Raisin Marketing Efforts**

During December, the raisins purchased through the new MBK bazaar totaled 110.6mt and included 63mt by Baba Quchqar, Ltd.; 35MT by Tabassom, Ltd. and 12.6mt by Shikhan Baqa Bik, Ltd. The letter at right shows their appreciation and request for reopening the MBK market which is certified by the MBK governor. Efforts by the three participating merchants, with support of the MBK government, to re-develop a large wholesale market for raisins will continue in the future. The direct connections stimulated by the GVCP staff between buyer and farmers should also continue in the future. The result will be increased efficiency in the MBK raisin marketing chain.



**Letter from MBK Governor**

**5.4 Visit the Input Suppliers, Design and Implement Tests**

Visit a sample of all types of input suppliers: technical assistance organizations, physical input suppliers, financial and non-financial input suppliers and collect information on the costs and availability of inputs. Then attempt to stimulate improvements in the delivery of inputs to the target value chain farmers and merchants. See Annexes on agricultural input suppliers (page 34) and credit (page 34) for more details.

It is important to understand the policies of other development efforts and the benefits they provide to farmers and merchants targeted for the Value Chain project so that the Value Chain project policies and benefits can be coordinated with those of the existing programs. Problems can arise if the policies and benefits are not similar across programs. For example, if the target project plans to provide goods and services on a subsidized basis while existing projects provide the same goods and services for free, then there will be a conflict. The planned project will face questions from potential project participants as to why they should pay for goods and services from the planned project while they are available free from an existing project. It would be difficult to

organize farmers to purchase fertilizer on a group basis if an existing project was distributing fertilizer on a subsidized basis directly to individual farmers.

We found several international development programs operating in the GVCP area. Most of the international organizations were providing farmers with assistance on production. For example, the USAID-funded Accelerating Sustainable Agriculture Program (ASAP) was assisting farmers install trellising on their vineyards. CARE was providing labor to farmers to perform grape production tasks such as the annual shoveling done to till the soil in grape vineyards. USAID's Afghanistan Vouchers for Increased Production in Agriculture (AVIPA) project was providing fertilizer on a subsidized basis to farmers. ASAP was also funding a project to improve the drying of raisins and then market them through a fair trade marketing channel. The raisin buyer is located in Charikar, Parwan Province, just outside the GVCP area. We attempted to coordinate with this project and include participants from the GVCP in the benefits of the raisin marketing project. However, we were unable to stimulate this.

We visited agricultural input suppliers in the area, learned about their products and programs and informed participating farmers and merchants of the possibilities. Because of existing programs that were providing agricultural inputs to farmers, we decided not to attempt a group effort during this project duration. We did make several attempts to improve delivery of credit to farmers and merchants. We did this primarily by visiting credit institutions, discovering those who were not serving the GVCP participants and attempting to link the institutions to the GVCP participants. See details in the Annex on Credit on page 34. The most promising possibility is to link merchants to Kabul-based banks. For example, Kabul Bank can provide merchants with operating loans that fit their needs. However, the bank had temporarily suspended issuing all loans due to the uncertainty relating to the Presidential elections. GVCP staff made the introductions (merchants to bankers) that should result in credit relations when security conditions improve. A major concern of the merchants was that the credit be issued on Islamic terms. GVCP staff identified an Islamic bank that could provide credit on Islamic terms; however, it had not yet begun issuing loans to merchants. Again, we made the introductions to initiate relations.

## **5.5 Review Results with Value Chain Actors**

GVCP staff organized final meetings with the farmers and merchants to review the results of the 7-month GVCP. It is important to note that some participants decided not to attend the group meetings because they felt that doing so would force them to reveal trade secrets. In response, the GVCP staff held two meetings. Comments from both sets of participants were similar. Participating farmers and merchants praised the project's accomplishments and requested an expansion of the services in a follow-on project. Farmers requested more assistance with production, specifically asking for more demonstration plots in their areas. Merchants supported the farmers' requests, saying that a development agency should work with farmers linked to merchants as the GVCP attempted to do. The merchants also asked for expanded assistance with marketing, especially marketing assistance that will allow them to fully exploit the newly discovered market in Karachi for Shamali grapes and to test the Dubai market. A list of the farmers' and merchants' requests is provided in the Annex on page 36 and 29.

## **5.6 Make Proposals for Follow-On Projects**

The GVCP staff and consultants have the following additional recommendations:

- Initiate pest (Powdery Mildew) management and other cultural practices (pruning and culling) early. GVCP activities started too late in the season last year (project started in June) to make an impact on grape quality.
- Continue efforts to solidify the use of the marketing techniques and marketing channels to Karachi, Islamabad and Lahore.

- Begin marketing grapes to Dubai via 40' refrigerated containers shipped by sea.
- Continue efforts to establish a marketing channel to the international military in Afghanistan. This will require high-level assistance from within the military and government.
- Construct an evaporative cooling room at MBK pack house for use in partially cooling grapes before packing.
- Construct and test a raisin-drying structure (rack) in cooperation with a raisin merchant. This will allow demonstration and testing of the benefits of drying raisins off the ground. The cleaner raisins may fetch prices that are high enough to pay for the additional investment and care.

## **5.7 Develop Documentation to Assist with Value Chain Improvements**

An important component of an effort to improve the functioning of a targeted value chain is the documentation that describes the value chain, technical advice on improvements, and the lessons learned from efforts to improve it. This manual seeks to fulfill the last mentioned role, namely, describing value chain analysis and improvement efforts in general and providing a record of the efforts implemented under the GVCP. Four supporting manuals have been developed under funding from the GVCP:

1. Production for Quality, by Andrew Teubes, describes the technical aspects of grape production in the area around Mir Bacha Kot in the Shamali Plain.
2. Harvesting for Quality, by Andrew Teubes, describes the procedures used to harvest quality grapes.
3. Post-Harvest Handling Manual, by Louw Theron, describes the process of packing grapes in the Shamali Plain.
4. HACCP for Afghan Grape Packing Houses, by Louw Theron, describes the HACCP methodology for assuring that grapes packed in a properly designed and prepared pack house will be safe for human consumption.

The documentation mentioned here as well as the monthly reports of the GVCP are available on the Roots of Peace webpage, [www.rootsofpeace.org/resources/project-reports/](http://www.rootsofpeace.org/resources/project-reports/).

## **6 Lessons Learned**

### **6.1 Lessons Relating to the Operation of the Pakistani Markets**

An important lesson learned relates to the operation of the fresh fruit market channel inside Pakistan. Due partially to the fact that Afghans cannot truck produce past Peshawar (in Afghan trucks) and cannot sell directly to Pakistani merchants outside the Peshawar auction market, and due to the fact that some fresh fruit from Afghanistan has arrived in Peshawar in poor condition; Pakistani commission agents in Peshawar have extraordinary power over the Afghan trade and have evolved a system which has resulted in Afghans putting up a low-quality package of fresh grapes. The commission agents in Peshawar are acting as regular merchants even though they have verbal contracts with the Afghans to act solely as commission agents. These “commission agents” purchase the Afghan grapes, sort and repack them, then resell to buyers in Lahore, Islamabad-Pindi and other Pakistani cities. This breaks the link between Afghan marketers and the final buyers so that price and quality signals do not flow well between producers and marketers. To make a profit on the grapes from Afghanistan, the Pakistani commission agents are effectively paying for average (poor) quality grapes and have created a system that does not reward Afghans for high-quality packs. By learning about this situation and having the resources from HLP to mediate, ROP has been able to bring this situation to the attention of both Pakistani and Afghan merchants involved and to propose an effort to break-up this “destructive” lack of marketing communications between Pakistan and Afghan merchants and Afghan producers. The “effort” proposed is the GVC Action Plan. By introducing a “new” package for high quality grapes, the GVC is providing Afghan merchants a visible way to demonstrate, to their Pakistani buyers, their intention of changing the old system. If the effort is successful, high-quality Afghan grapes will flow directly through the Peshawar market to buyers in the interior of Pakistan without repacking at Peshawar and the new “product” will receive the higher prices it deserves. This price signal will be transmitted all the way back to the Afghan producers who will be given the reward they deserve for their high-quality grapes.

### **6.2 Lessons Learned About Cooperating with Merchants**

The GVCP encouraged merchants abandon their decades-old marketing system in favor of a new one that will allow the prices of the final markets (rather than the initial commission market at Peshawar) to directly influence the actions of the farmers and merchants. We attempted to do this by convincing the merchants to try two new types of packaging. One was a totally new paper carton that had recently become available in the Pakistani market. Following our advice, the merchants agreed to pack only 7kgs of top-quality grapes in these new cartons. The second packaging used the wooden box traditionally used for the Pakistani market; but, with the brand or commercial labels of the merchants added and with the merchants agreeing to pack only 13kg of top quality grapes rather than the 14kg of mixed quality grapes that the boxes have traditionally carried. The merchants agreed to try this new system, knowing that it will take time away from their traditional packaging and marketing system, which has served them adequately all these years.

The lesson that we are re-learning from this project is that the merchants are willing to try new ideas; but, only if they are convinced that our ideas are worthy of their support and the investment of their time, marketing resources and reputations. The small financial incentive that we are providing (in the form of partial payment for the new packaging materials and techniques) is actually symbolic of our commitment rather than a compelling reason that they are participating. This point is well-understood when we compare the magnitude of what we attempted to do with the magnitude of the work accomplished almost daily by the merchants. Our funding allowed us to participate with the merchants in the shipment of 400mt of grapes. The individual merchants we are working with often ship more than 400mt of grapes in a 2-3 day period. Diverting their attention

away from their traditional business for the number of days we request their attendance at meetings and training sessions potentially costs them much more than the financial subsidy they can gain by working with us. And grape is only one of the many products that the merchants handle on a seasonal basis. The important Lesson Learnt from this experience is that the merchants are trusting in us and the Best Practice that we should learn is that we must treat the merchants with the respect they deserve and with respect for the resources that they are investing in their participation with us.

### **6.3 Lessons Learned Relating to Flexibility in Implementation**

Our GVCP convinced Afghan merchants and grape producers test new and potentially profitable ways of marketing grapes. We borrowed these ideas in from observations of grape marketing practices in other parts of the world. Our hypothesis is that the common practices of more “advanced” markets will be beneficial if applied/adapted by Afghan merchants and farmers. The lesson that we have re-learned is that external ideas must be adapted to local market conditions and that flexibility is required in administering a pre-planned program. The participating merchants and farmers are much more knowledgeable about the specifics of the local market than we are because they are investing, winning and losing money on the local market every day. They are very interested in trying our new ideas and are willing to invest their time and reputations in testing our suggestions. However, if they feel conditions are not correct to test a particular idea, we have to respond and adapt our plans to their demands. As well, if they see a processing or marketing opportunity and want to test it and we can accommodate support for them within the guidelines of the project, then we should modify our plans to assist them. The end result is in keeping with the GVCP objective of improving the efficiency of the Grape Value Chain. Doing so develops a good working relationship between the GVC actors and the GVCP staff and teaches the GVC actors how publicly funded efforts can be used to improve their industry.

If the development program cannot adapt, resources will be wasted because planned tests or trials may not be possible and resources cannot be shifted into possible tests of new opportunities. In our case, we found that the unexpectedly large crop of Afghan grapes drove prices down to the point that our participating merchants were not making the profits they expected to make on their regular businesses and were not as willing to implement the market tests they had planned with us at the beginning of the season. At the same time, our continued discussions with merchants and continued observations of market conditions allowed us to discover new marketing opportunities to test. In our case, lower-than-expected air freight rates opened opportunities for shipping grapes to India that we had not foreseen when we developed the Action Plan with merchants.

A fortuitous meeting between our staff and a previously unknown merchant led to a trial shipment of chilled grapes to Karachi and the discovery of a profitable marketing channel. This shipment of chilled grapes in 40’ refrigerated containers or “reefers” is quite new and has the potential of leading to the development of the export of Shamali grapes to the “world market” via the seaport at Karachi. A program designed with limited flexibility would not have been able to test this market channel unless it had been identified at the planning stage. It is important to note that this value chain development project was designed to respond to challenges and opportunities because it began with stakeholder meetings and research to identify the marketing ideas to be tested. Even with that amount of flexibility, what may turn out to be the most important discovery of this program was not identified until after the Action Plan was completed.

### **6.4 Lessons Learned Relating to the Cultural Impact on Credit**

It is important to remember that value chain development programs should adapt to the local culture. We typically think that credit is a constraint to industry development. Further, we believe

that high competition among credit institutions is beneficial for the industry because competition assures that the industry is obtaining credit at the best possible set of conditions of service and price. We have seen that there are few credit institutions serving the Shamali grape value chain. Therefore, we expect that stimulating more credit institutions to begin serving the GVC will result in more efficient development of the industry. The lack of competition appears to be related to the poorly developed economic operating environment (lack of collateral and a court system that can enforce contracts) and the religious objection to interest-bearing loans. Here it seems that an indigenous system of credit has developed in the context of:

- Strong, Islamic-based convictions that interest should not be charged on borrowed money and
- An absence of financial institutions willing to lend appropriate amounts of money (\$10,000 to \$50,000) to Afghan fruit and vegetable merchants serving the Shamali Plain.

To provide the merchants and farmers of the grape value chain with credit costing less than 25% per annum (stated either as “interest” or “profit sharing”), creative approaches must be used which respect the people’s strong Islamic beliefs relating to interest on credit. We discuss some of “creative approaches” in the Annex section on page 34: Credit Survey.

## 7 References

Grape Value Chain Project Monthly Reports. These reports, in English and Dari, are available on the Roots of Peace webpage, [www.rootsofpeace.org/resources/project-reports](http://www.rootsofpeace.org/resources/project-reports). The monthly reports provide much more detail on the experiences of the GVCP and form the major reference for this operations manual.

There are numerous manuals relating to value chain analysis available on the internet. Here are a few:

- The Global Value Chains Initiative, <http://www.globalvaluechains.org/>
- Acton for Enterprise, <http://www.actionforenterprise.org/training.htm>
- The "Handbook Value Chain Research" written by Raphael Kaplinsky and Mike Morris for IDRC provides a detailed description for how to conduct Value Chain Analysis. This manual is available on several webpages. To find one, just Google: Handbook Value Chain Research. The following address has a copy. <http://www.globalvaluechains.org/docs/VchNov01.pdf>
- Value Chain Analysis for Policy Makers and Practitioners by Hubert Schmitz of IDS for the ILO, 2005.
- ILO Guide for Value Chain Analysis and Upgrading, 2009, <http://www.value-chains.org/dyn/bds/docs/detail/545/6> .
- The ValueLinks Manual by GTZ, 2007, <http://www.value-links.de/manual/distributor.html>. The manual includes modules on selecting a value chain for promotion, analyzing a value chain and determining the chain upgrading strategy as well as modules on implementing and monitoring value chain development programs.
- "Making Value Chains Work Better for the Poor: A Toolkit for Practitioners of Value Chain Analysis, <http://www.markets4poor.org/?name=publication&op=viewDetailNews&id=964>. Manual focuses on VCA from a pro-poor perspective.

## 8 ANNEXES

### 8.1 Annex 1: Initial Meeting with Grape Farmers and Merchants

On June 15, 2009, a meeting at Mirbachakot Market Center of stakeholders (Kabul Fresh Fruit Traders Association, Afghan grape farmers and Pakistani traders) to obtain the farmer's and merchant's opinions and approval of the proposed GVC plan to export, to Pakistan, Kishmishi grapes treated with Gibberellic Acid (Gib). 17 lead farmers and 4 Kabul exporters, 2 Pakistani traders and four HLP Extension Workers attended. A second purpose of the meeting was to have farmers and merchants (Kabuli and Pakistani merchants) evaluate the present situation of grape production and exports; and to explain to them the benefit of properly applying Gib, thinning of growing clusters, grape health, proper harvest and packaging. The purpose of the meeting was achieved. The farmers and merchants (and extension workers) all agreed that the proposal to export high-quality, sorted-by-grade Kishmishi grapes treated with Gib was a good plan and agreed to participate.

At the beginning of the meeting, we explained that this project was being funded by the World Bank, HLP. We also explained to the farmers that HLP-ROP has agreed to provide 100% free Gib and improved technical production training to those farmers who prune-out the low value grape from their vines before applying Gib and who produce high quality Kishmishi grapes. At first, the attending farmers complained and said that they would not agree to prune the low value grape from their vines because they are not receiving enough money from the trader side every year.

At this time one of the lead farmers, Hajji Rahim, who is also exporting grapes to Pakistan, said that in Pakistan he asked a Pakistani trader why Pakistani traders are buying Afghan's 14kg grape for 400Rs. He said that the Pakistani trader asked one of his laborers to bring and open one of the Afghan grape boxes in front of Hajji Rahim. He said that when the Pakistani trader opened the box and separated-out the good grapes and found only 7kg. He showed Hajji Rahim the 7kg bad grape he asked: "can you eat this grape?" Hajji Rahim told him: "No, I can't eat because the grape which was come out from the bottom of the box was really bad grape." So Hajji Rahim said that we are packing 7-10 kg quality grape and 4-7kg bad grape in each box. At the end of his speech he said that until Afghans stop this cheating process Afghan traders and farmers cannot make enough money.

Mr. Hajji Ayaz who is Pakistani trader said that in Pakistan the good quality grape is selling at up to 100Rs per kilo, so Afghans wanting to receive good prices have to change their practices and should export 1st and 2nd quality grapes.

One of the lead farmer said to all farmers that 30 years before when the farmers pruned the low value grapes from their vines they always received good price from the traders. But now, no one is receiving good price. So we all have to know that we are creating problems for ourselves. If all of the farmers produce quality grape, then we can get our place again in the market and if traders receive good money farmers will receive good money as well.

At the end of the meeting, the attending farmers requested ROP staff to provide them training on the new production techniques. They also promised that they will be able to discuss and cooperate with GVC marketing department.

Attendees at June 14 Stakeholders Meeting at Mirbachakot Market Center				
No	Name	Position	Village or City Name	Contact
1	Hajji Abdul zia	Farmer	Day sakhi jan	0700-249150
2	Hamiduallah	Farmer	Baqabik	0797-077668
3	Jan Mohammad	Farmer	Miwa khato	0799-682929
4	Saifuddin	Farmer	Bala Ab	0799-215001
5	Dr. Baqi	Farmer	Laghmani	0700-270545
6	Abdul Khalil	Farmer	Shikhan Baqabik	0799-472201
7	Allahdad	Farmer	Laghmani	0776-853612
8	Gul Rahman	Farmer	Shikhan Baqabik	0774-454911
9	Hahi Shukrullah	Farmer	Laghmani	0799-541988
10	Ziauddin	Farmer	Day Sakhi jan	0772-024298
11	Shirshah	Farmer	Shikhan Baqabik	0799-667997
12	Subhani	Farmer	Guzar	0796-457019
13	Aminullah	Farmer	Shikhan Baqabik	0772-182998
14	Mohammad Karim	Farmer	Kowagalian	0778-442090
15	Marof shah	Farmer	Guzar	0788-392287
16	Hajji Sheer Ahmad	President, Kabul Fresh Fruit Traders Association	Kabul	0799-325-839
17	Hakam Khan	Grape exporter	Kabul	0799-333370
18	Hajji Rahim	Grape exporter	Kabul	0799-232274
19	Mohammad Ajan	Grape exporter		
20	Hajji Ayaz Khan	Pakistani grape commission agent	Peshawar	0092-300586-8399
21	Mohammad Ismail	Pakistani grape commission agent	Peshawar	
22	Bashir	Extension coordinator	Mirbachackot	0700-036063
23	Mohammad Ajan	Extension worker	Gozar, Desaqi Bal and De Saqi Bayin	0796-110114
24	Mohabad Shah	Extension worker	Kharoty, Sufyan, Dakoye Bala, Qalaye Malik Qalaye Sokhta Chila Bach and Siyab Charmgar	0795-284177
25	Habibullah	Extension worker	Babaqushqar	0797-407682
26	Mirza Mohammad	Extension worker	Qalaye Akhond, Noshwani Bala, Sarak Farza, Zamin Ghor, Baladay, Mirzakhil, Qalaye Ahmad Khan	0799-638794

## 8.2 Annex 2: Gib Application Training

On June 16, 2009, ROP Horticultural staff providing training on Gib application and thinning of clusters for farmers and merchants who participated in the GVCP Project. 72 New lead farmers, 15 old lead farmers, 50 local farmers and 5 traders attended this training. The ROP/GVCP coordinator welcomed the participants in the Mirbachakot Market Center Training Hall. The training was led by ROP Horticulturalist, Hajji Sultan Hamid. A brochure describing the Gib application process, produced by ROP, was distributed to all of the participant farmers and used in support of the training. The

objective of the training was to teach farmers the proper procedures to use in mixing Gib and applying it to their grapes. Additionally, farmers were urged to remove low quality clusters before applying Gib and were shown how to trim clusters to maximize their value. After the training the participant farmers watched a video of Indian grape production to expose them to some of the new technology being used in India. The participating farmers accepted Hajji Sultan Hamid's advice and agreed to prune their low quality clusters from their vineyards before applying Gib. At the end of the meeting, the 142 participants received the Gibberellic Acid to apply in to their vineyards.

### **8.3 Annex 3: Peshawar and Islamabad Fresh Fruit Market trip report.**

The objectives of the trip to the Fruit and Vegetable markets of Rawalpindi (Pindi )and Peshawar were to gain an understanding of:

- Gain approval of the GVCP Action Plan, specifically, the "new" crate for Kishmishi grapes
- Meet marketing agents
- Meeting with Sunny international

#### **Summary**

Identified potential commission agents for quality, graded Kishmishi grape in Islamabad-Pindi who will purchase Afghan grapes directly from Afghanistan traders rather than from commission agents in Peshawar. This will allow the higher prices of these markets to be transmitted by the changed marketing system to Afghan producers and traders. This shows the possibility of a significant increase in grape prices for Afghan traders and producers

Meeting has been held with Sunny International (a re-exporter to international market). They are very interested in closer working relationships with Afghan exporters. They can offer their services to Afghan traders for sale and export of fruit and vegetables from Afghanistan to Dubai, Canada, Europe and Saudi Arabia markets on 50% partnership basis.

#### **Visits of Fruit markets in Islamabad-Pindi**

Three afghan fresh fruit exporters (AFE) and the GVCP Pilot Coordinator, Mr. Sharif Osmani, visited Islamabad market on July 24, 2009, to identify the market for quality graded Kishmishi grape. The AFE met four different commission agents who are receiving fresh fruit from Peshawar commission agents. After their discussion concerning a 10kg crate with graded grape to replace the currently used 14kg crate (with poorly graded grape), both parties agreed to work with the 10kg crate. The Pakistani merchants noted that this product should complete much better than the traditional product which is currently being sorted and repacked at Peshawar in Chinese grape packaging materials.

After discussions regarding the Pakistani restrictions on Afghan truck movement (Afghan trucks must unload at Peshawar), the Islamabad traders agreed to take delivery of the fruit in Peshawar. It was also agreed that the Islamabad fruit commission agents will charge Afghan traders 7% of the total amount for their operation.

#### **Visits of Sunny International (SI) in Peshawar**

SI is a company started on 1997 and working on the re-export of Afghan fruit and Pakistani fruit and vegetables to Dubai, Canada, Europe and Saudi Arabia. SI is also working on the seed production and extension side. SI have a center in Peshawar., this company is buying Afghan fruit from the Peshawar market and re-sorting, re-packing and exporting them by PIA to other international markets. They are not using cold chain system because it takes only four hours from their pack house till Dubai by air and the product arrives in good condition. They are interested in buying

quality fruit directly from Afghan traders; but, are concerned because sometimes the Afghan fruit cannot reach Pakistan on time due to road blockage problems in Afghanistan (Mahi Par). If the fruit arrives late, then they will miss the flight to Dubai. Due to this risk, they are buying fruit from the Peshawar market and re-sorting.

During the discussions between SI Director Mr. Khalid Mahmood and Afghan traders, Khalid Mahmood said that they are interested to work with Afghan traders. He said that if they get Afghan fruit in Dubai on time, they will sell them in a 50% partnership with the Afghans.

### **Difference between Islamabad and Peshawar Commission Agents**

The most important achievement of the trip was in understanding the difference in payment practices of the Peshawar and Islamabad commission agents and the impact these practices have on Afghan grape marketing practices and profits. The payment practices of the Peshawar agents provide an incentive for Afghans to pack poor grape in the bottom of the crates and to push 14kg grape in to 12kg crates. Because Afghan trucks cannot drive further into Pakistan than Peshawar, Afghans have been compelled to market their grapes only to Peshawar commission agents. The Peshawar commission agents are re-exporting these grapes to Lahore, Islamabad and other cities around Peshawar and are capturing the profits of these markets by acting as regular merchants and outside their prescribed roles as commission agents.

After the Peshawar agents sell these grapes in Islamabad or elsewhere, they are paying the standard 7% sales commission to the commission agents in Islamabad or elsewhere; but charging the Afghans 6.25%. Additionally, they are paying the transport cost to the interior cities rather than deducting that expense from the sales revenue before handing the remainder to their Afghan clients. So, why are they willing to pay most of the commission fees and transport from Peshawar to the other cities? It appears that this is a method of hiding the prices they receive from the interior markets from their Afghan clients. This method allows them to act as regular merchants, “buying”<sup>4</sup> and reselling the grapes. Normally, acting as commission agents, they should charge their clients the transport costs and commission fees and transfer the remainder of the interior market price/revenue to their clients.

The commission agents are receiving 1000Rs to 300Rs per crate from different city markets; but, they show the Afghans the lowest price which they receiving from any of those cities. This allows them to keep the extra revenue from the higher priced sales. It also means that they are paying the Afghans a standard price that reflects the need to re-sort and re-pack all of the Afghan grapes they receive. Thus, Afghans who attempt to sell a high-quality pack are paid the standard price that is received by Afghan shippers who put up a poor quality pack. So, if someone packs good quality grapes, they don't receive any better price than someone who packs poor quality grapes, because everyone is receiving the same price in the same day. Thus, the incentive built into this system is to reward packers who pack poor quality packages. The Pakistani commission agents report that they find not only poor quality grapes, but, grass and rocks in some Afghan packs.

But the Islamabad commission agents are not re-exporting the products they receive from the Peshawar commission agents to other markets. Neither are they re-packing the products. They are acting as true commission agents, simply selling the products in the market and remitting the sales revenue to their clients after deducting their sales commission of 7% and any additional fees (such as transport) associated with the sale. Normally, they charge their clients 10Rs/crate for transport from the Peshawar market. This method allows the actual sales price and revenue from the product to

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<sup>4</sup> As commission agents, they do not actually buy the grapes. They simply receive them from the traders.

reach the merchant who employs the commission agent to sell the product. Thus, merchants/packers who pack superior quality packages of grapes tend to receive higher prices and revenue than those who sell a poor quality package of grapes. The incentive built into this system is to reward those who produce quality. Thus, the AFE and the GVCP Pilot Coordinator learned that if they can get their products past the Peshawar market and into the hands of the commission agents in Islamabad, they will probably be rewarded for producing and marketing high-quality grapes.

<b>Merchants Met in Pakistan</b>		
Name	Position	Contact
Khalid Mahmood	Director of sunny international in Peshawar	0092-3339174536
Hajji Nadir	Commission Agent in Islamabad	0092-3005131099
Ahsanullah	Commission Agent in Islamabad	0092-3005902165
Hajji Samdani	Commission Agent Islamabad	0092-3339143930
Saraj Agha	Commission Agent Islamabad	0092-3005212445
<b>Afghan Merchants who Visited Pakistan</b>		
Hajji Faroq	Fresh fruit exporter from Kabul Market	0093-700262313
Saeed Mir	Frehs fruit exporter from Kabul market	0093-787053346
Ahmad Monir	Fresh fruit exporter from Kabul market	0093-700238223

## **8.4 Annex 4: Participating Grape Exporters and Exports**

### **Exporters**

Traders Name	Contact	Company Name	Activity
Hajji Khawani	(0)700-275558	Idrees Mojeeb. Ltd	Fresh fruit exporter
Hajji Sheer Ahmad	(0)799-325839	Khalid Shikeeb Ltd	Fresh fruit exporter
Saeed Mir	(0)775-035058	Qasim Sayeed Mir Ltd	Fresh fruit exporter
Abdul Qudus	(0)772-024276	Afghan Dost Ltd	Fresh fruit exporter
Hajji Hakeem	(0)799-333370	Alim Bakhshinda Ltd	Fresh fruit exporter

## Fresh Grape Exports

Date	Activity	Quantity in Mt	Company Name	ExportMarket
Sep/2009	Un-chilled fresh grape exports	11	Afghan Dost	India/Delhi
Sep/2009	Chilled fresh grape exports	32	Afghan Dost	Karachi
Sep/2009	Un-chilled fresh grape exports	39	Khalid Shikeeb	Islamabad
Sep/2009	Un-chilled fresh grape exports	31	Idrees Mojeeb	Islamabad
Sep/2009	Un-chilled fresh grape exports	39	Alim Bakhshinda	Lahor and Islamabad
Oct/2009	Chilled Fresh grape exports	285	Afghan Dost	Karachi
Oct/2009	Un-chilled grape exports	29	Afghan Dost	India
Oct/2009	Un-chilled grape exports	21	Alim Bakhshinda	Lahor
Oct/2009	Un-chilled grape exports	16	Khalid Shikeeb	Islamabad
Oct/2009	Un-chilled grape exports	9	Idrees Mojeeb	Islamabad
Oct/2009	Un-chilled grape exports	65	Qasim Saeed Mir	Islamabad
Nov/2009	Chilled grape exports	108	Afghan Dost	Karachi
Nov/2009	Un-chilled grape exports	11	Idress Mojeeb	Islamabad
	<b>Total exports</b>	695		

## 8.5 Annex 5: Major Training Events

Date	Activity	Number of Participants	Purpose of the Training
16/June	Gib Application training	142 farmers	The purpose of this training was to teach farmers the proper procedures to use in mixing Gib and applying it to their grapes. Additionally, farmers were urged to remove low quality clusters before applying Gib and shown how to trim clusters to maximize their value. At the end ROP distributed GIB tablets to all of the participant farmers.
30/Aug	Grape processing training	26 farmers and traders	The purpose of this training was to educate the local focus cluster farmers, traders and exporter on: harvesting, handling and the use of the market prices posted on the billboard installed in front of the market center which provide them daily grape price.
26/Sep	Grape Packing training	47 grape packers	ROP arranged the processing and packing training for all of our traders and their grape packers. The purpose of the training was to educate the grape packers to pack the grape properly for the Lahore, Islamabad, Karachi and India markets. At the end of the training ROP provided two tents, 20 harvest baskets and 10 grape harvest pruners to each of the exporters who has a contract with ROP.
10/Nov	Raisin Drying Training	64 grape farmers	According to the farmers request the GVCP staff arranged the raisin drying training. The purpose of the training was to educate the farmers on making raisin within minimum time. At the end of the training ROP provided them potassium carbonate, oil and tarpaulins as well.

## 8.6 Annex 6: Input Suppliers Identified

This is the report of the technical assistance organizations, physical input suppliers, financial and non-financial input suppliers that GVCP staff identified and visited during the project.

1. FAO works with pesticides, insecticides.
2. SDO originated the focus cluster, but their project is finished .
3. NUHDA is not active currently.
4. NUHDA has plan to work on marketing of fresh fruit in future.
5. CARE is active in the area.
  - CARE is providing 100% free labors for grape farmers to shovel their grape vineyard in each village.
  - CARE's teams shovel 20 vineyards each day.
6. IRD is active in the area.
  - IRD's provided 3000 bags of fertilizers to all Mirbachakot district. The fertilizer price in local market was 720Afs per bag but IRD charges to farmer was 125 afs per bag.
7. APNA is not active currently.
  - APNA has plan to provide 100% free 15 chickens to each family.
  - APNA also provide these families 25 kg of feeds for the provided chicken.
8. ASAP trellising program is active in Mirbachakot.
  - ASAP has 4 master trainer for Kabul, Parwan and Kapisa, these trainers are providing the agriculture new techniques to the grape farmers.
  - ASAP also works through Drokshshan input supplier, these input shops are selling the \$8 trellising posts to the grape farmers in \$3 and charging \$5 on ASAP.
  - The farmer is responsible for the posts transportation from the shop to their grape farm.
  - ASAP's trainer will provide the techniques and design of the trellising to the farmer who purchased the posts from the Drokshshan shop.
  - Farmer is also responsible for the installation of the posts and purchasing the wire with 50% discount for their farm.

## 8.7 Annex 7: Credit Survey

The Marketing Specialist visited several different banks in Kabul to investigate financing possibilities for those farmers and traders who are interested in using credit to support their vineyard or business. We found out that those banks which are located inside Kabul city are not providing loans less than \$50,000 to traders and that the borrower must provide as collateral for the loan a clear title document to a house in Kabul or a powerful guarantor or co-signer. This requirement is not possible for the Shamali farmers or traders. The Ghazanfer Bank, which operates under the Islamic banking system, told us that they have not yet started making small loans. They are currently working only with the biggest factories and traders and their smallest loan is \$500,000 dollars. Currently, they are accepting money on deposit under the Islamic system.

As we mentioned in our previous report, farmers are receiving loans from the Microfinance Agency for Development and Rehabilitation of Afghan (MADRAC) and BRAC-Afghanistan in MBK district. These two financial institutions grant small loans to farmers with the guarantee of their local village leader. Once they repay a loan, they are welcome to continue to receive loans. The farmer's problem is that the rates of interest charged by the microfinance institutions are quite high. Their effective rate is 40% per year. As described below, some farmers can satisfy their needs for cash by borrowing from merchants who purchase their production. However, it is clear that this source of cash is not adequate for all farmers; otherwise, they would not borrow from the microfinance institutions.

The GVCP staff also met the traders to ask them if they need loans of more than \$50,000. Hajji Farooq, one of the major grape exporters, explained that the traders are receiving interest-free loans from Pakistan merchants during the Afghan fruit season. The same Pakistani traders are receiving interest-free loans from Afghan merchants during the Pakistani harvest season. At the start of the season, the Pakistani traders may advance money to the Afghan traders (who may, in turn, give it to the Afghan farmers). As the season progresses and fruit is shipped to Pakistan, the Pakistani traders may keep larger proportions of the sales revenue rather than returning it to the Afghans. In this way, they collect the money they had advanced to the Afghans earlier in the year and begin to “borrow” money from the Afghans. When the Pakistan fruit season starts, they are sending fruit to Afghanistan and the Afghan trader, selling their fruit, withholds some of the sales revenue as repayment from the Pakistanis.

Hajji Farooq mentioned that each Afghan merchant has their own relationship with different farmers and the merchants are providing loans to those farmers whom they can trust. During the harvest season, when the farmer agrees with the trader on the price for his production, they also agree on the payment terms. In some cases, the farmers agree to receive payment much later in the season. In this way, the farmers are financing the traders. Thus, there appears to be times during the year when the traders are financing the farmers and times when the roles are reversed and the farmers are financing the traders. The Afghan traders have a similar relationship with Pakistani traders. Thus, there is a cycle of lending and repayment (which includes farmers and Pakistani merchants) that changes with the seasons. This cycle explains why the traders can do business without reliance on a bank for financing.

The question remains: what impetus to development would occur if both farmers and merchants had access to interest-free loans? We have decided to seek answers to the related question: how can interest free loans be made to farmers and merchants? One answer is to have agricultural supply businesses sell agricultural inputs to farmers at prices that contain a charge that would allow the ag depot to recover all its costs and a reasonable profit. Merchants could be assisted in finding farmers with whom they enter into a joint production and marketing agreement that would benefit them both. The GVCP Marketing Specialist suggested the following ideas. An Islamic-compliant bank or financial institution could be assisted in supplying loans to both merchants and farmers. Alternatively, an NGO could be granted a sum of money to use for making interest free loans to targeted value chain actors. A portion of the funds granted to the NGO would be used to pay the NGO’s expenses of operating the lending program. The borrowers could be asked to pay a portion of the NGO’s operating expenses incurred in issuing and managing the loans. A similar arrangement could be developed with a non-Islamic bank. Just as the Ag Depot inflates the price of the ag inputs sold to the farmer to cover all business costs (including any cost of money), a bank could charge borrowers for “handling charges” that would cover all its costs of granting and servicing a loan.

Below are contacts for the banks visited by the GVCP staff.

- Kabul bank: Mr. Gurunathan Ramachandran, Chief Credit Officer. Contact # 0799-890957
- Ghazanfer bank: Mr. Ali Mushtaq, Credit Risk Officer. Contact #0797-860011
- The first Microfinance Bank: Mr. Hafizullah Zafari, SME Loan Officer. Contact #0796-478732.
- Maywand Bank: Mr. Tamim, Credit Department Assistant. Contact # 0797-071200.

## **8.8 Annex 8: Final Stakeholder Meetings**

### Meeting December 19, 2009 at Mir Bacha Kot Market Center

A Stakeholders’ meeting was held in the MBK market center on 19, Dec, 2009 to discuss the results of the GVCP and receive feedback from the participating farmers and merchants. Malim Abdul Khalil, one of the lead farmers in the MBK focus group spoke first. Malim said that they are very happy with

the work of the GVCP and ROP. He said that he felt the training provided enabled farmers to increase their production capacities and that the marketing training was helpful in increasing the value of their grape crop. He said that on behalf of MBK farmers he appreciated the work which ROP has accomplished this year. He requested ROP to work in a wider area to cover more farmers.

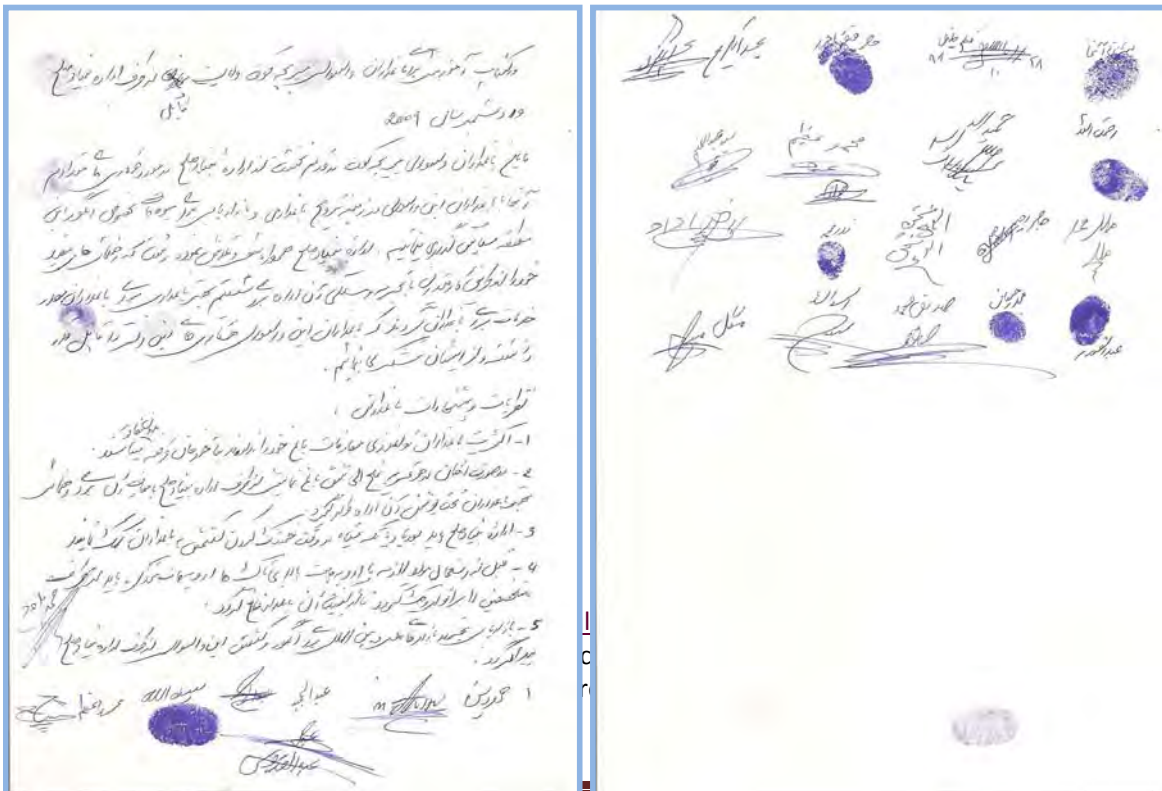
Hajji Rahim Khan, one of the raisin exporters we worked with in the project, thanked the GVCP for finding the new grape market in Karachi. He said that ROP should work with a few more traders on grape exports to Karachi plus other countries. He said that Shamali farmers had a lot of losses this year due to too much production and if the government or NGO's do not help them with other markets, the Shamali grape industry will be in risk. He said ROP is doing good job but it is not enough for the Shamali or MBK farmers, he said we hope that ROP come and work in larger area to effect on farmers family economy.

Grape exporter Abdul Qudus was also one of the participants at the meeting. He said that GVCP program was one of the most effective programs in Afghanistan. He said this was the first time that Shamali grapes had been exported to Karachi in significant quantities. He requested ROP to work with traders on the grape export to Dubai and other countries in 2010.

After the discussion the participants wrote a letter to ROP, thanking it and the GVCP for the work of 2009 and making the following requests for work in 2010:

- ROP should work in a wider area with more farmers next year.
- ROP should make 5 -6 demonstration plots in each village.
- Provide loans without interest to the cooperative.
- ROP should provide free Boria (woven mats) or black cloths to the farmers to dry raisins.
- ROP should assist farmers to certify the quality of inputs used on their farms.
- ROP should work to find more grape markets for the Shamali grapes.

**Letter from farmers and merchants at Dec 19, 2009 meeting. Letter expresses appreciation for the accomplishments of ROP and the GVCP and several requests for continued assistance.**



Association, Hajji Attah Mohammad the vice-president of Mirbachakot Ltd and Mohammad Hakem the Alim Bakhshinda president. The purpose of the meeting was to get their ideas about ROP's work in the past and future activities. Hajji Sheer Ahmad said that the ROP activity was good and helpful for the farmers and traders who worked with this program. He said ROP should work with the fresh fruit traders on the export of grapes to Karachi and Dubai next year as well. He said that on the grape export issue, the Kabul traders have to move step by step through the process with assistance from an international organization such as ROP. He mentioned that for those markets where the Afghan merchants are not currently exporting, due to lack of marketing information and contacts, ROP should help with the following things for the first shipment:

- Provide market information.
- Take at least one of their representatives to targeted market.
- Introduce them to the buyers in the target markets.
- Provide training on how to pack grape for the targeted market.
- Introduce them to the cheapest transport company.
- Provide 50% of the cartons cost for the first shipment.
- Provide 50% cost of transportation for the first truck.
- Train those farmers who are working with the merchants.
- Provide an interest-free to assist the merchants finance the exports.

During the discussion, Grape Exporter Mohammad Hakem, of Alim Bakhshinda, Ltd. also accepted what Hajji Sheer Ahmad said. Mohammad Hakem said that they cannot reach any of the potential markets like Karachi or Dubai without ROP's or some similar organization's help. He said that ROP or any Aid organization who wants to help the traders and farmers has to work on production and marketing in the same time. He said some times the MBK farmers are producing quality grape; but , due to low market opportunities and low prices, the farmers are losing hope to produce quality grape. After the discussion the GVCP marketing specialist showed them the grape harvesting and processing video which was made in South Africa.

GVCP Pilot Coordinator and Marketing Specialist meeting with farmers and merchants Dec/19/09



Hajji Sheer Ahmad, President, Kabul Fresh Fruit Traders Association, Hajji Attah Mohammad, VP, Mirbachakot Ltd and Mohammad Hakem , President, Alim Bakhshinda, Ltd. in meeting Dec/29/09 with Sharif Osmani, GVCP Pilot Coordinator and Marketing Specialist

