

1.0 INTRODUCTION

The study has been basically conducted to understand the scenario in which the farmers of the Rawain region are operating, the changes that the formation of the **‘Rawain valley Fruits and Vegetables’ Growers Association** has made to their operations. It also examines the scope for strengthening the backward and forward linkages with a focus on the marketing aspect by the Federation.

2.0 OBJECTIVES

- ◆ To study the marketing structure, the interventions made by the Farmers’ Federation till date and suggest future strategies to be implemented by the Federation.
- ◆ To study the backward and forward linkages established by the Federation and assess the scope for strengthening the existing ones and establishing new ones.

3.0 SCOPE OF THE STUDY

The scope of the study was limited to the villages in which the Federation has members and the Dehradun *mandi*.

4.0 METHODOLOGY

- ◆ Interview with the executive committee members of the Federation and HARC official.
- ◆ Informal discussions with the intermediaries and all the players involved in the system.
- ◆ Group discussions with the Federation members
- ◆ Literature review

5.0 SOURCES OF DATA

HARC officials, Federation members, Market intermediaries – *Aadthis*, *Mandi Samiti* officials, Wholesalers, Retailers and Local agents, Transporters, Truck union members, Suppliers of seeds, pesticides/fertilisers, officials of financial institutions.

6.0 THE LAYING OF THE FOUNDATION

Himalayan Action Research Center (HARC) undertook extensive agricultural programmes in the Rawain valley to encourage local farmers to cultivate fruits and vegetables on a commercial scale. For achieving this purpose, HARC developed a concept of paratechs, '*barefoot scientists*'. These were people who because of their hold on the indigenous knowledge and aptitude were selected from among all the farmers of this region. The latest scientific and technical knowledge was imparted to them and they were trained in various aspects of horticulture production. Demonstrations and exposure visits to orchards and farms in neighboring Himachal Pradesh were arranged for them to acquaint them with the latest scientific practices. These paratechs in turn disseminated information to farmers at the village level, which led to the commercial production of tomatoes, peas, brinjal, capsicum etc. Consequently, the production of fruits and vegetables increased manifold in the area in the last five years. Around seventy paratechs trained during a period of five years started meeting at HARC campus in Naugaon on the fifth of every month to discuss their needs and concerns. In the year 2001, there was a bumper crop of tomatoes and there was a pressing need for '*Bardanas*', wooden boxes for the packing of tomatoes. These wooden boxes were not available because of the restrictions imposed by the forest department. Also, farmers were not able to find markets wherein they could get a remunerative price for their produce. In order to tackle these problems, in one of the paratechs' meetings, a decision was taken to form a pressure group to fight for the interests of the farmers of this region. In the meeting held on the fifth of June around twenty progressive farmers were also invited and an adhoc committee was formed to search various avenues that are available to the farmers. In a period of ten days, linkages with Mother Dairy were developed and on the

thirteenth of July, Mother Dairy started lifting the produce through its own trucks and also provided its own crates.

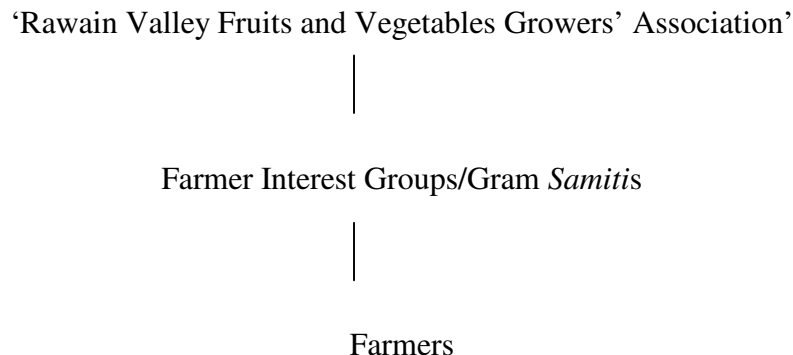
On the Fifth of June, ‘Rawain Valley Fruits and Vegetables Growers’ Association’ was set up and then this idea of Federation was mooted in the sixty-seven villages situated in HARC’s project area.

6.1 The Legal status

This association of the farmers of Rawain valley has been registered under the Societies Act, 1860 as a not for profit organization on fifth of August, 2001.

6.2 The Structure of the Federation

The Federation intends to carry out its activities through a three tier structure consisting of the farmers at the grass root level, Farmer Interest Groups (FIGs)/Gram *Samitis* at the village level and the Federation as the apex body.



The Federation was formed first. However after its formation, there was a felt need for a body that could act as a inter-link between the farmers and the apex body at the village level. This would facilitate dissemination of information to the farmers as well as express their concerns to the apex body. So the idea of forming Farmer Interest Groups/Gram *Samitis* was generated and

the Federation started forming them at the village level. Till date it has successfully formed these *Samitis* in thirty villages.

6.3 Membership

The federation has five hundred permanent members. There are another two hundred people who have filed in their applications for membership. However, the Federation does not want to rush as regards the same. It wants to first strengthen its infrastructure before taking in more members so that it can provide quality services to them.

6.4 Contribution

All the farmers have each paid Rs.50/- towards the life membership fee.

6.5 The Executive Committee

The operations of the Federation are conducted through the Executive committee, which is constituted of

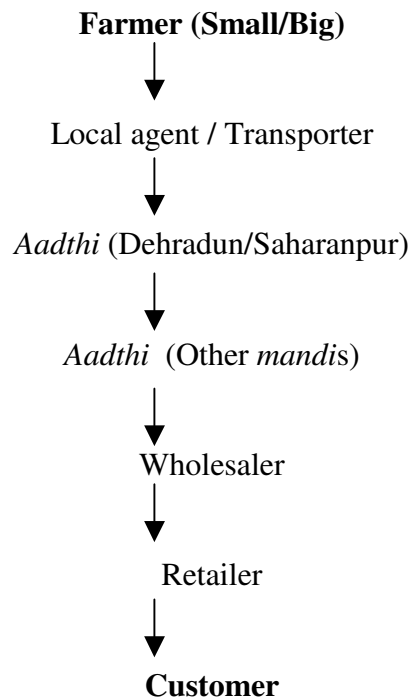
- ◆ President
- ◆ Vice President
- ◆ Treasurer
- ◆ General Secretary
- ◆ Secretary
- ◆ Six Ward In-charges

For operational purposes, all the sixty-seven villages were grouped into six wards – Naugaon, Gadoli, Badkot, Rajgarhi, Purola and Bagasu. Ward in-charges were nominated from among the farmers to represent their respective wards in the executive committee of the Federation. The other office bearers were also nominated from among the farmers. The byelaws of the Federation state that the office bearers would be elected by the general body constituting of all the farmer members. It being the first time the office bearers were all nominated for a period of one year by HARC.

7.0 PRESENT MARKET STRUCTURE

The following are the different ways in which the horticultural produce of the farmers of the Rawain valley has been reaching the end customer:

1)



The middlemen known as *Aadthis* operate mostly from Dehradun, Saharanpur and Vikasnagar *mandis*. They are the commission agents who facilitate the sale of the produce of the farmers. Since most of the farmers in the Rawain region are small, their produce is not sufficient for them to book any means of transportation individually. It would be highly unprofitable for them to do so. It is even difficult for most of the farmers to go along with their produce to the *mandis*, as commuting to and fro between their villages and the nearest *mandi* involves almost twelve hours and also they cannot afford the expenses involved for the same. So most of these *Aadthis* have local agents working on their behalf in this region. These local agents do the work of collecting the produce from the farmers and making the transportation arrangements. The transporters are those people who perform a similar act. The only aspect that differentiates them from the local agents is that they are not bound to any particular *Aadthi*. They send the collected produce to any

mandi and any *Aadthi* according to their wisdom. At times, the farmers specify the *Aadthi* to whom their produce has to be sent. The local agent supplies to the farmers seeds at the beginning of every season and wooden petis/crates during the harvesting season, which are sent to him by the *Aadthi* thus leading to a relationship that binds the farmers to a particular *Aadthi*. The *Aadthi* also gives them advance money for buying pesticides and fertilizers. Storage, till a bulk quantity of the produce is collected and transportation of the same is the sole responsibility of the local agent or the transporter as the case may be. But in both the cases, the farmer is charged for such storage and transportation. The produce when it reaches the *Aadthis* at Dehradun, Saharanpur and Vikasnagar *mandis*, is sold to the buyers who are basically both wholesalers of these places and representatives of *Aadthis* of other *mandis* of Uttaranchal, Uttar Pradesh and Delhi under a system of open auction. The *Aadthi* charges commission from both the farmers as well as the buyers for facilitating the sale. Any loss or damage to the produce till the time of sale has to be borne entirely by the farmer despite the fact that the local agent or the transporter is responsible for the storage and transportation of the farmer's produce. The highly perishable nature of the produce and the poor state of infrastructure only intensify this burden of the farmers. The payment for the produce is made only to the farmers. Since they do not accompany their produce, they do not receive any cash immediately after the sale. Whenever the farmer gets time to go to these *mandis*, his dues are settled by the *Aadthis*. This is a phenomenon that is specific in the case of the farmers belonging to the hills as they find it very inconvenient to go to the *mandis* everytime the produce is sent. As against the farmers of the plains who receive cash payments immediately after the sale, the farmers of the hills receive their dues at the end of every two to three months.

The following are the expenses that a farmer has to incur for the sale of 20 kgs of tomatoes:

Expenditure	Dehradun	Saharanpur
Wooden box	40.00	40.00
Transportation	14.00	16.00
Packing/Misc.exp.	10.00	10.00
Bilti expenses	3.00	3.00

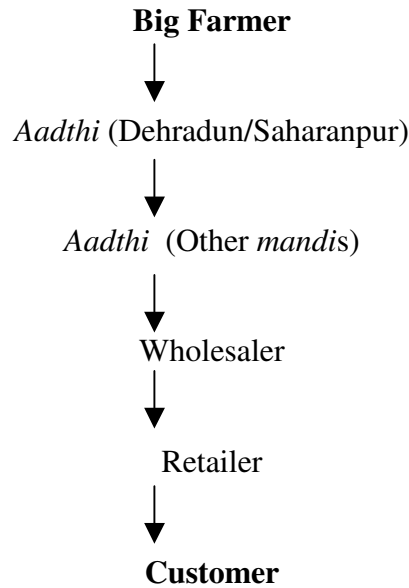
Loading/		
Unloading	2.00	2.00
Postage, Invoice exp.		
& Misc. charges	5.00	5.00
Total expenses	74.00	76.00

The transportation expenses mentioned are from Naugoan. Apart from these, the farmers have to incur the charges for transporting the produce from their fields and orchards to the road heads. The packaging and miscellaneous expenses include the amounts spent on newspapers, nails, ropes ('*sutli*'), amounts charged by the transporters and local agents for the storage of the produce till the time of transportation and also their commission for the role they play in this entire system. The *bilti* expenses are for the '*parchi*' drawn by the local agent/transporter when the produce is being sent to the *mandi*. The postage and invoice expenses are for the '*parchi*' drawn by the *Aadthi* after the sale of the produce, which is sent to the farmer whose produce has been sold.

In addition to the above-mentioned expenses, the farmer has to pay the commission charges of the *Aadthis*, which are 6% at Dehradun and 6 1/2% to 7% at Saharanpur markets.

Since the farmer is not present at the time of sale, there exists ample scope for the *Aadthis* to misquote the prices at which his produce was sold. Also the cost of seeds and other input services provided by the *Aadthis* are not decided initially. Thus this gives an opportunity for them to deduct any amount according to their whims and fancies while drawing the final invoice which is sent to the farmer.

2)



It is only the big farmers of this region who adopt the second method. In this case, since these farmers' produce is voluminous enough for them to book their own means of transportation, these farmers prefer to take their produce directly to the *mandis* of Dehradun, Saharanpur and Vikasnagar. Because of their sound finances and production capacities, they enjoy the flexibility of taking their produce to any *Aadthi* or any *mandi*. Thus this ensures that the farmers get the price that they actually deserve for their efforts. However in cases where these farmers also require the input services of the *Aadthis*, based on the length and intensity of their relationships, the *Aadthis* are always eager to help them. By supplying the inputs, the *Aadthis* ensure that the produce of these farmers is sold through them. The main advantage of this method is that the big farmers do not have to bear the charges of the local agent or the transporters. Also most of the big farmers accompany their produce to the *mandis*. The produce is sold in front of them and they get to know the actual rates at which the sale is made, thus leaving little scope for any misappropriation by the *Aadthis*. Another advantage of this process is that these farmers get cash payment immediately from the *Aadthis*.

Under this method, the big farmer incurs all the expenses that are incurred by the farmers under the first method except the storage and *bilti* expenses that are payable to the local agent/transporter as well as their commission.

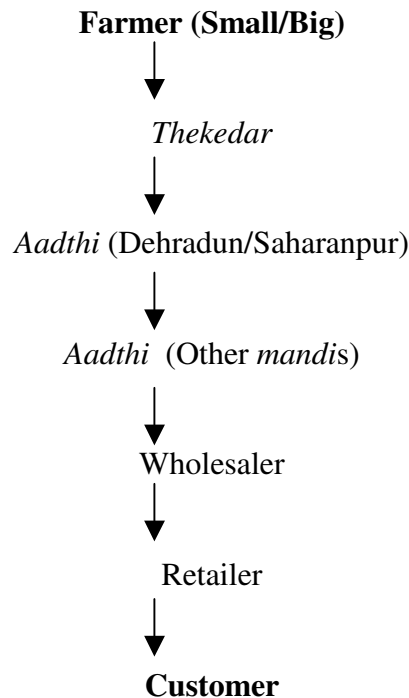
The following aspects are also to be considered as regards the above two cases where the sale of the farmer's produce is facilitated through the *aadthis*:

- ◆ As per the *Mandi Samiti* rules which hold good for all the *mandis* functioning in Uttaranchal and Uttar Pradesh, no commission can be charged from the farmers by the *Aadthis*, who facilitate the sale of their produce. Quite contrary to this, the *Aadthis* of these *mandis* charge commission ranging between six to eight per cent of the sale proceeds of the produce sold from the farmers. The commission rates vary depending upon the regions to which the farmers belong. Most of the farmers however believe that the practice in vogue is as per the rules of the *Mandi Samiti*.
- ◆ The *Mandi Samiti* gives bill books to the *Aadthis* for preparing bills, which are to be given to the farmers as well as the buyers. This bill format does not give the *Aadthi* any scope to deduct commission and all the other expenses that he generally charges from the farmer. But these bills are never given to the farmers. This is because the amount that is stated in them has to be paid to the farmer. So, the *Aadthis* maintain their own bill books and these are the bills that the farmer gets. Most of the farmers are totally unaware of this fact. The bills that should be given to the farmers as per the *Mandi Samiti* and those that they are actually receiving are enclosed in Annexure - 1
- ◆ As per the rules of the *Mandi Samiti*, when the produce enters the market place through any means, a gate pass has to be made by the *Mandi* officials. This gate pass contains information as regards the quantum of the produce that is being taken to each *Aadthi's* stall. However, *Aadthis* rig this process and get gate passes that indicate lesser quantities than what they actually receive. Whenever the farmers have a problem as regards the payment aspects, they cannot prove their claims because of this practice of the *Aadthis* as the actual quantum of the produce that they have sold through the *Aadthis* never gets recorded in the *Mandi Samiti's* books.
- ◆ In the open auctions held in the *Mandis*, the parties calling the bids are never known. In this process, the farmers who are present during the auction do not get to know the buyers who

are bidding for their produce. Depending on the market conditions and the quality of produce being auctioned, the *Aadthis* try to bid and buy the produce at prices that can fetch them remunerative returns in their further deals by making their own men participate as buyers in the auction. Thus, they take advantage of this system as well as the farmer's ignorance.

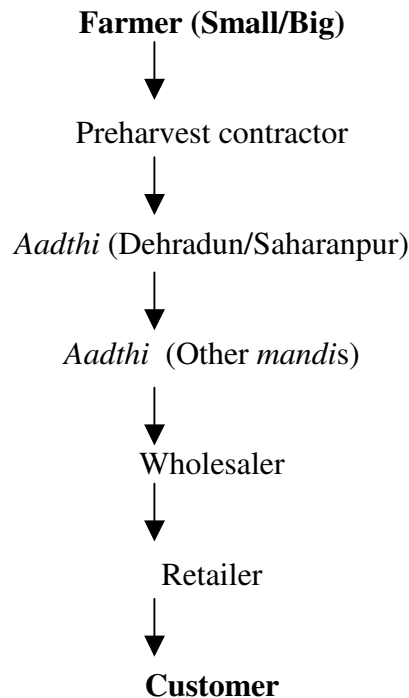
- ◆ In addition to the above, the *Aadthis* also charge the farmers expenses that they have not incurred for facilitating the sale of their produce. There are no cold storages in or near Dehradun *Mandi*, however the *Aadthis* of this *Mandi* at times deduct cold storage expenses from the payment due to the farmers. The *Mandi Samiti* requires the *Aadthis* to pay *Mandi Shulk* and *Vikas Cess*, which according to the rules should be collected from the buyers. However, as farmers are unaware of this aspect, the *Aadthis* collect these charges from them as well as from the buyers. The bills made in the name of the farmers are routed to them through the transport vehicle owners who have brought their produce to the *Mandis*. As such, there are no costs involved in sending the bills to the farmers. However, postage charges not incurred for sending the bills are also deducted from the sale proceeds due to the farmers.

3)



It is very similar to the first case except the fact that in the place of a local agent, the *thekedar* comes into the picture. The local agent is a mere representative of the *Aadthi* who collects the produce of the farmers and supplies seeds and packaging material to them on his behalf. The *thekedar* on the other hand purchases the produce from the farmers and sends the same to the *Aadthis* at his own risk. This means that the farmers are discharged of their risk and responsibility and receive cash payments, once the *thekedar* buys their produce. The farmers have to incur negligible expenses but at the same it has to be understood that the *thekedar* would pay lesser prices for the produce as compared to what the farmers would receive if they sent their produce all the way to the *mandis*. This practice has been prevalent to a great extent only in the case of potatoes. This is because potatoes can be stored for almost a year. The small farmers who do not have storage capacity and those who are in need of cash sell their produce to these *thekedars* during the season even when the prices are not very favorable. The *thekedars* buy the produce during the season at lower prices and sell the same during off-season when the prices brighten up. However, in the recent years this trend is catching up in the case of all other vegetables and fruits as well. In this region, there are very few *thekedars* who deal in all vegetables and fruits.

4)



This procedure holds well only in the case of the fruits especially apples and pears produced in this region. Unlike the *thekedars* who purchase the produce only after the harvesting is done, the Preharvest contractor purchases the standing crops of the farmers. The payment is done not on the quantity/volume of produce but on the basis of number of trees in the farmer's orchards. Inputs like pesticides and fertilizers are not provided, however part of the payment agreed upon with the farmer is made to him at the beginning of the season to facilitate the procurement of the same. The remaining amount is paid to him after the harvesting is over. The farmers do not have to worry about grading, packing and transportation of the produce as this is carried out by the contractor himself. In cases, where the farmers undertake these activities the contractors pay them for the services rendered.

This method involves less risk as well as less returns to the farmers. In the event of a bumper crop, it is the contractor who reaps the benefits of the farmer's efforts. Also the farmer loses out when favorable prices prevail in the market because of demand and supply gaps. But in the case of crop failure or glut in the market, the entire loss is borne only by the contractor. There are very few farmers who sell the produce through this method. These contractors as well as the *thekedars* sell the produce in Dehradun, Saharanpur *mandis* as well as the other *mandis* of Uttar Pradesh and Delhi.

Considering the sale of twenty kilos of tomatoes through each of the above-mentioned methods, the following are the expenses incurred and the prices received by the farmers of this region.

Table 1: Expenses incurred and the prices received for 20 kilos of tomatoes under the different methods in the present market structure

Market Structure	Income to Farmers/ Sales Value of the Produce (per kg.)	Expenses (for 20 kilos of tomatoes)						
		Peti / Crate/ Boree	Transport charge	Pkg/ Misc .Exp	Bilti charge	Loading/ Unloading	Postage/ Bill exp./ Other exp.	Commission payable
Local agent	6/-	40/-	14/-	10/-	3/-	2/-	5/-	6% to Aadthi & 1% to local agent
Aadthi	6/-	40/-	14/-	10/-	not spent	2/-	5/-	6% to Aadthi
Thekedar	3/- to 4/-		not spent		not spent	not spent	not spent	not spent
Contractor	No risk No return	not spent						

Source: Informal discussions with farmers

The following table is a comparison of the input provision, payment details and other aspects of the different methods prevalent in the existing market structure.

Table 2: Comparison of the different methods in the present market structure

Market Structure	Input Provision	Payment details	Other aspects
Local Agent	Exists	Late payments (Because of distance involved) Expenses related to collection of payments.	<ul style="list-style-type: none"> • Charge commission, which is illegal. • Make different bills • Different prices • Different quantities • Put their own men for bidding in the auction • Irrelevant expenses charged
Aadthi			
Thekedar	No Input pro.	Immediate Cash payments	Traditionally has been practiced in the case of potatoes. Recent trend as regards other vegetables and fruits.
Contractor	No Input pro. in kind. Cash given at the beginning of the season.	Cash given at the beginning of the season as well after the harvest is done.	Has been witnessed only in the case of Apples and to a very limited extent in the case of Nashpathi.

Source: Informal discussions with farmers, *Aadthis* and *Mandi* officials

8.0 BACKWARD LINKAGES - PROCUREMENT OF INPUTS

The horticulture activity requires several inputs in the form of seeds, pesticides, insecticides, fertilizers, implements, technical expertise and finance which is essential to make all the other inputs available. It is essential to strengthen the backward linkages because the productivity as well as the quantum of production are to a great extent dependent on the timely availability of these inputs. The farmers should also be able to procure these inputs at affordable rates so that they can ensure the quality of the production that they undertake.

8.1 Seeds

The following are the different ways in which the farmers of the Rawain valley have been procuring seeds:

8.1.1 Locally produced seeds

As regards certain crops, some of the farmers retain a part of their produce of one season to use the same as seeds for the next season. This practice has almost come to an end in the case of vegetables that are extensively grown here because the use of such seeds has an adverse impact on the productivity and also deteriorates the quality of the next season's produce. However it is extensively prevalent in the case of potatoes and pulses. In the case of French beans and Cabbage, which are being grown on an experimental basis, farmers are adopting this practice.

8.1.2 Agents of the Middlemen

At the beginning of every season, the middlemen who are the *Aadthis* of the *mandis* send truckloads of seeds to their agents who supply them in turn to the farmers. These *Aadthis* sell both branded and unbranded seeds to the farmers and so the farmers are not guaranteed as regards the productivity and also the quality of the produce. In spite of this inherent disadvantage, this practice still rules the roost because the *Aadthis* and their agents do not charge the farmers even a single rupee at the time of the seed distribution. It becomes an unwritten and implicit obligation for the farmer who procures the seeds from the agent to sell his produce to his

Aadthi and accept the price he is being paid. The price of the seeds is adjusted against this payment and it is a general occurrence for the *Aadthis* to charge exorbitant prices for the seeds supplied by them to the farmers. This is a vicious circle in which most of the Rawain farmers are trapped.

8.1.3 Shopkeepers in Naugoan, Badkot and Purola

There are seven shops in this region, which cater to the seed demands of the farmers. They all purchase the seeds from the licensed dealers of the companies who operate from Dehradun and Saharanpur. At times these shopkeepers also act as agents of the *Aadthis*. They procure seeds at the beginning of every season after collecting demand from their regular customers. Also since they visit these places frequently during the season, those who need seeds find it convenient to place their orders with them instead of depending solely on the *Aadthis* and their agents. Dealing with the shopkeepers gives the farmers the flexibility of placing orders for seeds of a specific company and a specific quantity. The shopkeepers, acting in tune with the extensively prevalent practice sell seeds to the farmers on five to six months credit which at times extends up to an year. The margins that these shopkeepers earn in the entire transaction range between 15% to 25%.

8.1.4 Dealers in Saharanpur and Dehradun Markets

All the reputed seed companies have their licensed dealers operating from Dehradun and Saharanpur markets. Very few farmers who command large areas can afford to go to these *mandis* and buy the seeds directly from the dealers for cash. The small and medium farmers who are dependant on credit cannot afford the commutation, boarding and lodging expenses that have to be incurred when they visit these *mandis* to procure the seeds. This is, despite the fact that they will get the seeds at prices which are less as compared to those charged by the shopkeepers and the *Aadthis*. Also the quantum of their demand makes it non-viable for the individual farmers to go all the way to these *mandis* to procure the seeds.

8.1.5 HARC

HARC has been working with farmers of the Rawain region for the last eight years and has built a good rapport with them. Companies like Golden seeds, R.K.Seeds and SAFAL have provided

seeds to the Rawain farmers with HARC acting as a facilitator. They have supplied their seeds to HARC asking them to distribute the same amongst the farmers at prices that are a little above the ones at which they supply to their dealers. Presently, Golden Seed Company is providing seeds of *Dhania*, which is relatively a new crop in this region. Since it is the first time that the farmers are growing *Dhania*, the company has agreed to buy the entire produce of the farmers at a pre-determined rate. The price of the seeds would be adjusted against the payment for this produce. These practices are generally adopted by the Seed companies as a means to promote their seeds. Hence, such distribution of seeds is rare and has remote chances of becoming a regular occurrence. So the farmers cannot depend on this channel as a consistent source for meeting their seed requirements.

8.1.6 Company Stalls during Melas

Since the last three years, HARC has been organizing '*Kissan Melas*' wherein it invites the seed companies to promote and sell their products. This has done a good deal as far as educating and improving the awareness levels of the farmers is concerned. The farmers have been exposed to a variety of seeds and have also been able to get huge discounts on their purchase. But then, such melas are for a short period and the transactions are all cash based. Also they are an annual occurrence and so it is very difficult for the farmers to possess the cash needed to purchase their entire seed requirement at one particular point of time. It is very difficult for the companies to estimate the demand because of the frequent changes being experimented by the farmers of this region. This results in stock outs in the case of certain seeds and huge inventories lying unattended to in the case of others during the melas. These aspects make it difficult for the farmers to take advantage of these melas in spite of the opportunities that they offer.

8.1.7 State Horticulture Department

The state horticulture department also provides seeds and saplings to the farmers. It has its own field offices in this region from where it operates. It also facilitates the provision of these inputs to farmers staying at distant locations through its mobile teams. It deals in limited variety of seeds of very few companies. It provides all these seeds at 50% subsidy. But if the farmer wants to procure of a particular variety that is not listed with the horticulture department, then he has to

bear the entire cost for the same. In spite of having its field offices and mobile teams, the department's seeds are out of the reach of the majority of the farmers of this region.

8.1.8 Farmer Federation's Intervention

Since its formation, the Federation has been trying to don the role that was being played by HARC. Slowly it is getting into form under the guidance of HARC. It is trying to act as a facilitator and has been contributing in the organizing of the '*Kissan Melas*'. This year, with the help of HARC, it had invited six seed companies to exhibit their products. These companies received a very good response for the same. For the first time, that many number of companies had come together to exhibit their products simultaneously. The farmers got a chance to compare and make their own choices. Till then, most of the farmers never had any options, they had to merely take whatever was sold to them. But due to the paucity of funds and the short duration of the *mela*, not many farmers could make the most of this opportunity. So at the behest of the farmers, the Federation has invited the seed companies and has arranged an interaction between them and the farmers. The farmers made their individual purchases and were given a discount of 20% on the Maximum Retail Price (MRP).

8.1.9 Suggested Future Strategies

- ◆ Presently, the Federation is acting as an inter link between the individual farmers and the seed companies. But it can take over the activity of collecting the entire demand of its members, calling quotations from the seed companies and placing bulk orders. The advantage of this system as against the one that is presently being followed is that because of the bulk orders the Federation and in turn the members will enjoy better discounts from the seed companies than those that are being offered to the individual farmers. Since it commands a high membership of 500 members, the Federation can become a highly potential consumer for the Seed companies. Because of the membership that it enjoys, seed companies which do not have any dealers or distributors in the Rawain valley region are already approaching the Federation themselves to promote and sell their seeds among its members. Also in this arrangement there would be more assurance and reliability as regards the quality

and productivity of the seeds as this constitutes direct purchase from the seed companies. This arrangement removes all the middlemen who are generally the sources of these inputs for the farmers. However, this system can work well and the farmers can reap benefits of the huge discounts that would result from this arrangement only if they have the ready cash to pay these seed companies because they do not provide credit facilities to the farmers or to the Federation.

- ◆ In the future, as the Federation's capacity (both production and financial) increases, it can take the dealership of the seed companies. The dealers of almost all the seed companies get the following discounts:

Normal Discounts: Normally, the MRP is fixed @ 20% above the listed dealer price, whereas the dealers get 20% discount on this listed price.

Cash Discounts: Cash Discounts @ 5% for the cash payments made promptly within the time frame as stipulated by the company.

Target Discounts: At the end of the year based on the achievement of the targets set, target discounts @ 1% - 2.5% are allowed to the dealers.

All these discounts would imply the availability of the seeds to the farmers at the minimum possible price.

The requirements for taking up the dealership of any seed company generally are:

The company should be convinced that the region has good potential of consuming its products.

A security deposit in the range of Rs.25, 000/- to Rs. 30,000/- which would fetch the dealers an interest @ 9% approximately on an average.

The applicant should have a good experience for a minimum of three years in the same business. In the case of the Federation, the seed companies were willing to relax this particular requirement if its dealership is guaranteed by HARC.

There will be annual targets set as regards the sales and if these are met, then the dealer gets to enjoy turn over discounts at the end of the year.

Most of the companies demand cash down payments from the dealers. In some cases however credit is extended up to a maximum period of one month. Beyond this period, the company starts charging interest from its dealers.

The Federation can comply with all these requirements and can hence acquire the dealership of any of the seed companies. Presently, the farmers are still in a mode of experimentation. They are procuring and using the seeds of the same vegetable from different companies because they want to check the quality and productivity of the produce. So it is not sufficient if the Federation acquires the dealership of one company and so it is better to allow some time to elapse before the Federation after considering the preferences of its members makes its decisions of obtaining the dealership of any particular seed company. If the Federation takes up the dealership, then it will not only serve the interests of its members but will also contribute to freeing other farmers of the region from the clutches of the middlemen.

The following table showcases the cost that the farmer would have to bear in the case of ten grams of tomato seeds under the suggested future strategies as against the present system that the federation is following for the procurement of seeds for its members. The MRP of ten grams of tomato seeds of Indo-American seed company which are used by most of the farmers in this region is Rs.550/-.

Table 3: Costs of seeds to the farmer under different procurement strategies (in the case of 10gms of tomato seeds)

Form of Operation	Discount available	Cost to the Farmer (in Rs.)
Present	20% on MRP	440
Placing Bulk Orders	25% on MRP	412.5
Dealership	36% on MRP (considering only normal discount)	352

Source: Informal discussions with the officials of the different seed companies

8.2 Pesticides, Insecticides and Fertilizers

The following are the different ways in which the farmers of the Rawain valley have been procuring the above:

8.2.1 Home made organic fertilizers

The produce of this region has been untouched by the chemical fertilizers to a great extent. The farmers here have been mostly involved in the production of traditional crops which are grown in a traditional way using only indigenous inputs. It is only in the last few years that their focus has shifted to horticulture and onto the production of cash crops. Cow dung, compost, dried leaves and twigs are treated and then are used to enrich the fertility of their fields. They take pride in the fact that their means of cultivation is now being promoted and popularized as the safe and the right manner to grow crops.

8.2.2 Shopkeepers in Naugoan, Badkot and Purola

There are seven shops in this region which cater to these input demands of the farmers. They all purchase the pesticides and insecticides from the licensed dealers of the companies who operate from Dehradun and Saharanpur. Also there are small units producing these products at Solan. The shopkeepers also procure these locally made products. Since they visit these places frequently during the season, those who need the pesticides and insecticides find it convenient to place their orders with them instead of depending solely on the *Aadthis* and their agents. Dealing with the shopkeepers gives the farmers the flexibility of placing orders for products of a specific company and a specific quantity. The shopkeepers, acting in tune with the extensively prevalent practice extend five to six months credit to the farmers. The margins that these shopkeepers earn in the entire transaction range between 15% to 25%. The margins are high on the locally produced products as compared to those earned in the case of branded products.

8.2.3 Dealers in Saharanpur and Dehradun Markets

All the reputed companies have their licensed dealers operating from Dehradun and Saharanpur markets. Very few farmers who command large areas can afford to go to these *mandis* and buy the products directly from the dealers for cash. The small and medium farmers who are

dependant on credit cannot afford the commutation, boarding and lodging expenses that have to be incurred when they visit these *mandis* to procure the same. This is, despite the fact that their purchases will be at prices, which are less as compared to those charged by the shopkeepers and the *Aadthis*. Also the quantum of their demand makes it non-viable for the individual farmers to go all the way to these *mandis* to procure the pesticides and insecticides.

8.2.4 HARC

HARC has been working with farmers of the Rawain region for the last eight years and has built a good rapport with them. As a means to promote its products, companies like Indophil have provided the same to the Rawain farmers with HARC acting as a facilitator. HARC having understood the premium enjoyed by the organic produce has been making many an effort to promote the same. Chemical fertilizers are hardly used in the production of vegetables. Because of the huge cattle population and the presence of a large forest cover, there have been ample resources contributing to the preparation of organic manure. To capitalize on this opportunity, HARC has been giving extensive training to the farmers as regards the preparation of organic fertilizers.

8.2.5 Sahakari Samitis

There are many *Sahakari Samitis* catering to the credit and other input needs of the farmers of this region. These *samitis* provide chemical fertilizers, which are especially used in the apple orchards to a great extent. But because of the damage being caused to the fruit, the usage of the same even in the case of apples is on a decline. The *samitis* provide fertilizers including Urea that is given to them by the government which in turn is procured by them from IFFCO. These fertilizers and pesticides are sold for cash. Also when a farmer applies for a loan, he is given cash to the tune of Rs.2000/- and seeds and/or pesticides to the tune of another Rs.2000/- for an acre. The interest charged is 12% on the whole amount.

8.2.6 Company Stalls during Melas

Since the last five years, HARC has been organizing '*Kissan Melas*' wherein it invites reputed companies to promote and sell their products. This has done a good deal as far as educating and improving the awareness levels of the farmers is concerned. The farmers have been exposed to a

variety of products and have also been able to get huge discounts on their purchase. But then, such *melas* are for a short period and the transactions are all cash based. Also they are an annual occurrence and so it is very difficult for the farmers to possess the cash needed to purchase their entire requirement at one particular point of time. It is very difficult for the companies to estimate the demand on account of the frequent changes in the attitudes of the farmers as regards the usage of the pesticides and insecticides because they are still in a stage of using and experimenting with different products every season. This results in stock outs in the case of certain products and huge inventories lying unattended to in the case of others during the *melas*. These aspects make it difficult for the farmers to take advantage of these *melas* in spite of the opportunities that they offer.

8.2.7 Farmer Federation's Intervention

As regards the aspect of pesticides, insecticides and fertilizers, the Federation has not taken any initiative other than inviting companies dealing in the same for the *mela* organized this year. Caltrax, which deals in insecticides and fungicides, Biotech International that deals in pesticides and Uttara Bio-compost which is a government undertaking dealing in organic manure had set up their stalls this year. After the Federation developed its linkage with it, Mother dairy through the Federation has promoted and marketed 'Agronim' an organic fertilizer among its members.

8.2.8 Suggested Future Strategies

- ◆ In the case of vegetables the thrust being on producing them organically, the Federation should step in and dissuade the use of chemical fertilizers. It ought to conduct demonstrations showcasing the ways of preparing manure organically in the most efficient and effective manner.
- ◆ The Federation hasn't still taken any concrete step in the direction of procuring pesticides, insecticides and fertilizers on a large scale on the behalf of its members. Since, in the case of apples, it is still considered necessary to use insecticides and fungicides, the Federation can

collect the demand of all its members and place bulk orders with the companies dealing in these products.

In other words, it has to adopt strategies similar to the ones suggested for the procurement of the seeds.

8.3 Farm Implements

The following are the ways in which the farmers procure the implements that they use on their farms:

8.3.1 Shopkeepers in Dehradun and Saharanpur markets

Most of the big farmers directly purchase the required farm implements from the shopkeepers of the Dehradun and Saharanpur markets. They have to pay liquid cash for the same.

8.3.2 Big Farmers

The other farmers in the villages take it from the big farmers and in most of the cases are charged for the same. The big farmers charge according to their whims and fancies. The rates could be very nominal or exorbitant depending on the relation the other farmer shares with them.

8.3.4 HARC

HARC has procured some useful farm implements and has made them available to the farmers of this region at nominal prices.

8.3.5 Farmer Federation's Intervention

No concrete step has been taken up by the Federation in this regard till date.

8.3.6 Suggested Future Strategies

- ◆ HARC can entrust the Federation with the responsibility that it has been shouldering till date. All the farm implements owned by HARC can be given to the Federation and the Federation would be required to maintain them and ensure their proper use. The Federation can also

acquire more implements, which will enable it to cater to the requirements of all the farmers of this region.

8.4 Financial Inputs

The means of finance for the farmers are as follows:

8.4.1 Aadthis and their agents

The major heads of production related expenses for the farmers are land preparation, seeds, pesticides, insecticides, fertilizers, irrigation, transportation, packaging and labour charges. Most of these are available to the farmers on credit from the *Aadthis* through their agents. Though the *Aadthis* and their agents do not provide pesticides, insecticides and fertilizers, they do give hard cash to them for the procurement of the same. This advance money given by them would be adjusted in one go or in stages as requested by the farmers from the payments due to them for the sale of their produce facilitated by the *Aadthis*.

8.4.2 Shopkeepers in Naugoan, Purola and Badkot

These shopkeepers are always ready to lend nominal amounts to the farmers. Those who are the agents of the *Aadthis* get it adjusted against the payments. The rest charge interest for the money lent by them.

8.4.3 Moneylenders

The farmers for all their other financial needs approach the money lender, pay abominable rates of interest and end up in a vicious debt trap which as is seen in most of the cases sounds the death knell for the majority of the farmer community.

8.4.4 Sahakari Samiti

The samithi does offer loans to the tune of Rs.4, 000/- per acre @ 12% interest rate to the farmers. However it does not provide loans to the farmers involved in horticulture.

8.4.5 Farmer Federation's Intervention

The Federation has not given any thought as regards making arrangements to meet the financial requirements of its members.

8.4.6 Suggested Future Strategies

The Federation can get its member farmers linked with the credit assistance available from the banks under *Kisan Credit Card* (KCC) scheme. KCCs are issued to the farmers on the basis of their land holdings, so that the farmers may use them to readily purchase agricultural inputs such as seeds, fertilisers, pesticides, etc. and also draw cash for their other production needs'.

KCC involves revolving cash credit facility which means that the farmers can withdraw and repay back any number of times provided the amount is within the limit stipulated as per the land holding of the farmer.

Under KCC scheme, each drawal has to be repaid within a maximum period of 12 months.

Under the KCC scheme, the limit is fixed for every farmer on the basis of operational land holding, cropping pattern and the scale of finance. The entire production credit needs for the entire year along with the ancillary activities related to crop production are considered while fixing the limit. These limits are fixed by the District Level Technical Committee, comprising of the officials of the bank and the representatives of the farmers, and can be changed as and when required. For the Uttarkashi district, the limits for vegetables and potatoes have been calculated in the following manner:

Table 4: Credit limits for vegetables and potatoes in Uttarkashi district

	Vegetables	Potatoes
Fertilizer cost (Rs./acre)	1500	3000
Seed cost (Rs./acre)	500	2000
Labour cost (Rs./acre)	2000	3000

Other cost	--	--
Total cost (Rs./acre)	4000	8000
Estimated production (kg/acre)	1000	4000
Estimated income (kg/acre)	8000	10000
Credit in kind (Rs.)	2000	3000
Credit in cash (Rs.)	2000	6000
Total credit assistance (Rs./acre)	4000	9000

Source: National Bank for Agriculture and Rural Development records

Credit limits fixed do not involve any marketing costs. The Federation can get in touch with the District Level Technical Committee and get marketing costs sanctioned specifically for its members.

KCC scheme permits conversion/rescheduling of loans in the case of damage to crops due to natural calamities. Landslides are frequent phenomena in the hills that destroy the standing crops. This feature of KCC scheme provides a kind of insurance facility to the farmers in a way that they will not have to pay their installments within the specified time frame, in the event of a crop failure.

The farmers of Rawain valley are not aware about the benefits that can be availed from the KCC scheme. The Federation can play a major role in making its farmer members aware of the scheme and getting them credit assistance from the bank under the same.

8.5 Technical expertise

The only way in which technical expertise has been made available to the farmers of this region is as follows:

8.5.1 HARC

Till date, HARC has carried on the activity of educating the farmers of this region as regards the better methods and scientific technologies that ought to be adopted to increase the productivity and quality of the produce through its agriculture extension office situated at Naugaon. For this purpose it has adopted several strategies. It has invited experts and provided a platform for the farmers of the region to interact with them, acquaint themselves about the emerging technologies and express their field-related concerns and queries. Horticulture was restricted to growing potatoes and apples. HARC played a role in promoting other cash crops and horticulture activities in this region by disseminating the information as regards the ways in which these activities ought to be undertaken. It has organised demonstrations of growing all the crops, it promoted among the farmers. Right from the ways in which the seeds/saplings have to be sown/planted to the ways in which the post harvest management needs to be conducted was taught to the farmers. They were informed about the existence of different varieties of seeds. They were also encouraged to grow different varieties on an experimental basis so that the farmers could themselves decide as regards the varieties that yield the maximum produce. Crop diversification is a primary objective that HARC has been trying to achieve. It has also organised exposure visits to successful and progressive farmers of various other places especially Himachal Pradesh for the farmers of this region. This also offered opportunities to the farmers to upgrade their knowledge as regards their existing technologies and see for themselves the fruits of implementing scientific methodologies. HARC has taken the initiative of educating the farmer of this region and has been successful to a great extent. However, there is a lot of work that needs to be done to ensure that the produce of the farmers of this region is of the best quality and is able to fetch the most remunerative prices.

8.5.2 Farmer federation's Intervention

No concrete step has been taken in this direction. However, the Federation wants to slowly take over the mantle from HARC as regards all these activities.

8.5.3 Recommended Future Strategies

- ◆ The issue of the development of the members of the Federation involves not only organizational empowerment, but also knowledge empowerment. The Federation needs to hold demonstrations and exposure visits for its members to the areas that are having more productivity in the same climate as that of Rawain valley. This would lead to the members having information about the cropping techniques that they can implement for generating higher returns. The Federation should be supporting the enhanced capacity of farmers to make their own informed decisions - including through such learning-based systems as demonstrations and exposures.
- ◆ The Federation can take an initiative by setting up permanent contacts with the research and extension department of the agricultural universities. So that the members of the Federation can reap direct benefits of the progress achieved in the field of agricultural science. This would cater to the present day need of the farmers to interact with the technology and information suppliers.
- ◆ The Federation can also contact agricultural graduates and encourage them to set up agri-clinics for the members of the Federation in the Rawain valley that would help in solving the problems of the farmers at their fields. This would help the members as they would be getting the professional expert's help for solving their problems at a nominal rate as the Federation would be bearing the expenses of running such an agri-clinic for its members.
- ◆ The Federation can help its members to articulate their requirements in a focused and forceful way and in evaluating the recommendations received from different sources as solutions to their problems.

It can thus play a major role in the creation of a Better Knowledge, Information and Technology System.

9.0 GRADING

Grading was unheard in this region till recent times. The following is the way in which it is being done till date.

9.1 Present Scenario

In the case of apples alone the farmers have been doing grading. This is done on the basis of size and the apples are divided into six categories – Extra large, Large, Medium, Small, Very small and Pithoo. Based on the size and also the variety, the apples fetch prices to the farmers. In the case of vegetables, grading was unheard of until the linkage with Mother dairy was developed. Mother dairy has taken tomatoes and French beans from this region and especially in the case of tomatoes, it has introduced the concept of grading. The tomatoes were graded into A and B categories and the B quality ones were rejected by them. For the sale of these tomatoes, the farmers had to once again approach the middlemen. For all the other fruits and vegetables that are sold directly through the *Aadthis*, no grading is done by the farmers.

9.2 Suggested Future Strategy

The farmers of this region do not undertake any grading activity of their produce because they are unaware of the benefits associated with grading. So the most important contribution that the Federation can do in this regard is to educate its farmers about the value of grading and the advantages that can be derived by adopting this practice. Secondly the farmers need to be taught the various bases on which grading is done and also the manner in which this process is carried out. The Federation can also procure and provide its members containers that are specifically used for this purpose of grading.

10.0 PACKAGING

The produce is brought from the farms and the orchards to the shopkeepers' and transporters' godowns in wooden boxes called '*Bardana*'; jute bags called '*Boris*' and cane baskets.

From here they are sent in wooden boxes, jute bags, cardboard boxes etc. to the *mandis*.

The following table shows the different ways in which the most important vegetables and fruits of this region are packed:

Table 5: Means of packaging Fruits and Vegetables with their capacity

Vegetable/Fruit	Package	Capacity(kgs)
Potatoes	Borees	80-90
Peas	Borees	50-60
Cabbage	Borees	40-50
Cauliflower	Borees	40-50
French Beans	Borees	35-40
Tomatoes	Wooden boxes/Crates	10-12
Capsicum	Cardboard Boxes	10-12
Apples	Wooden boxes	18-20
Pears	Borees	40
Plums	Wooden boxes	20
Peaches	Wooden boxes	20
Kiwis	Cardboard Boxes	--

Source: Informal discussion with farmers and *Aadthis*

The following are the rates of the above mentioned packing materials;

Wooden Boxes (large capacity 18-20 kgs used mainly for fruits) – Rs.35/- Rs.40/-

Wooden Boxes (small capacity 10-12 kgs used mainly for tomatoes) – Rs.18/- Rs.20/-

Borees -- Rs.20/- Rs.25/-

Cardboard Boxes -- Rs.15/- Rs.20/-

Crates were introduced for the first time in this region when the Federation developed its linkages with Mother dairy. Mother dairy procured tomatoes and French beans from the farmers of this region. For this purpose it sent its own crates directly to the fields of the farmers. This resulted in a great decrease in the expenses that the farmer of this region generally had to incur in order to bring his produce to a saleable form. This led to most of the farmers showing a keen

interest in sending their produce to Mother dairy. As a result some of the *Aadthis* of Saharanpur had to send their own crates to Naugaoan to enable their local agents and the *Thekedars* to collect tomatoes from the farmers.

10.1 Farmer Federation's Intervention

One of the main problems that the farmers of Rawain valley were facing was 'packaging'. This was because of the decrease in the availability of wooden petis at affordable rates. The restrictions imposed by the government on the felling of trees in the forests led to this problematic situation for the farmers. The problem reached greater dimensions in the event of a bumper crop in the case of tomatoes. This was dealt to a certain extent by developing the linkage with Mother dairy. The dairy not only sent its own crates but also this practice led to some of the *Aadthis* following suit. Mother dairy was very particular about the grading and took only those tomatoes, which were of the best quality. The others again had to be sent to Dehradun and Saharanpur *mandis*, for which the farmers required packaging material. To meet this need of the farmers, the Federation under the Diversified Agriculture Support Programme of the Uttaranchal government bought 2000 crates valuing Rs.3, 00,000/-. These haven't been put to use till date because by the time the crates arrived, the season was over. However, the crates will be a great help to the farmers in the next season. The Federation plans to collect rental charges from the farmers for the usage of crates. The Federation has not yet decided the various rules to be followed for this purpose.

10.2 Suggested Future Strategy

- ◆ The farmers have only seen tomatoes and french beans being sent in crates as this was the way in which they dealt with Mother Dairy. The federation should promote amongst its members the usage of crates as packing material in the case of all the other fruits and vegetables as well. This will decrease the expense burden of the farmers to a great extent.
- ◆ The amount collected from the farmers as the hire charges of the crates can be used for the following purposes – maintenance of the existing crates, replacement of the worn

out/damaged crates and purchase of new ones. The purchase of more number of crates is essential because the existing number of crates with the Federation is hardly sufficient to meet the demand for the same from its members.

11.0 TRANSPORTATION

This has always been a major problem for the farmers of this region. The farmers have to incur expenses to a great extent towards the transportation of their produce. The produce is transported in two stages – from the farmer’s fields or orchards to the road head and from the road head to the mandis. The produce is brought from the farmer’s fields or orchards to the road head on head loads or by engaging the services of ‘*khachar*’ i.e. mules. This involves a cost of anything between hundred to three hundred rupees depending on the distance and the quantity involved. From the road heads, the produce makes its way into the mandis through the trucks of the Rawain Valley Truck Union, private buses and other utility vehicles. Most of the farmers send their produce through the Union’s trucks.

The following is a brief of the trucks belonging to the Truck Union and their capacities as regards the various packaging materials.

The Truck Union runs vehicles having three different capacities

- ◆ Big trucks -- 100-120 quintals
- ◆ Medium Trucks -- 70-80 quintals
- ◆ Small Trucks -- 35-40 quintals

Table 6: Capacity of trucks in terms of packaging material

Form of Package	Big	Medium	Small
Big wooden boxes/Crates	450	300	200
Small wooden boxes	700	600	450
Borees	100-110	70	35-40
Cardboard boxes	450	300	200

Source: Rawain valley truck union members

The following are the transportation rates charged by the Truck union people for transporting the different packaging materials from Naugaon to Dehradun and Saharanpur *mandis*:

Table 7: Truck Union rates from Naugaon to Dehradun and Saharanpur *mandis*

Form of Package	Rates to Dehradun (in Rs.)	Rates to Saharanpur (in Rs.)
Big wooden boxes	12-14	14-16
Small wooden boxes	8-10	10-12
Borees	40	47
Cardboard boxes	15	16

Source: Rawain valley truck union members

The people belonging to the Truck union do not allow any outside parties to transport goods from Naugaon. Most of the farmers feel that because of this monopoly that they enjoy, the Truck Union has been charging exorbitant prices from them and this practice of these people has remained unchecked till date.

11.1 Farmer Federation’s Intervention

The linkage that the Federation has developed with Mother Dairy has helped in solving this problem to an extent. To lift the produce of the farmers, Mother dairy sent its own trucks to Naugaon and the nearby areas. As such the farmers did not have to worry about paying high prices for transporting their produce. But as regards the produce that is sold through aadthis, the farmers have to still bear the heavy charges of transportation through the Truck Union’s vehicles.

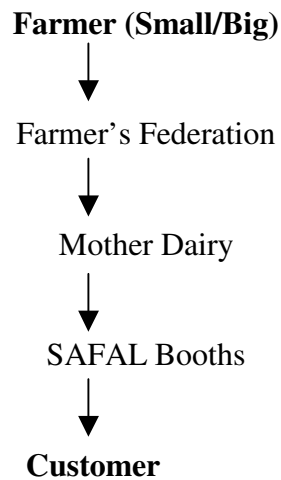
11.2 Suggested Future Strategies

- ◆ The Federation should wield its bargaining power and take up the cause of its members with the Truck Union’s office bearers.
- ◆ A meeting is organised of the farmers, transporters, representatives of Aadthis and the Truck vehicle owners at the beginning of every season, wherein the prices are decided. The

Federation should actively participate in these meeting and use the tactics of a pressure group and ensure fixation of prices, which would be affordable for the farmers as well as profitable for the vehicle owners.

12.0 MARKET LINKAGES OF THE FEDERATION

The following is the way in which the linkage developed with Mother dairy by the Federation is functioning:



The farmer Federation developed linkages with Mother dairy as a means to solve the marketing, packaging and transportation problems of the farmers of the Rawain region. Mother Dairy has shown keen interest in the tomatoes and French beans grown in this region. It has also purchased other vegetables and fruits in small quantities on an experimental basis. It has offered good prices to the farmers because of which the supply in the *mandis* got regulated thus leading to better prices for the farmer's produce even in the *mandis*. Mother dairy procures these produce for selling the same in the Azadpur *mandi* at Delhi and more so through its own SAFAL booths spread throughout the nation's capital city. The Federation received 1.75% of the value of the entire transaction as its service charges from Mother dairy. The farmers in this set up receive payment for their produce once in a week. The amounts are paid directly into their bank accounts and this has resulted in hassle free transparent transactions. Since Mother dairy sent its own

trucks along with crates till the collection centres, the farmers didn't have the need to incur any expenses as regards transportation and packaging. However, in the case of this market linkage with Mother Dairy following points needs to be considered:

- ◆ The emphasis on quality produce and the grading by Mother Dairy has resulted in the marketing problems of the 'B' grade quality produce thus requiring the farmers to resort back to the *Aadthis* for the sale of the same.
- ◆ The produce lifted by the Mother Dairy is insignificant as compared to the total production potential of the members of the Federation. As per office bearers of the Federation, quantity of the produce lifted by Mother Dairy amounts to about five percent of the production by the Federation's members.
- ◆ The price given by Mother Dairy is highly variable in nature. Last year, in the case of tomatoes Mother Dairy started its procurement at Rs. 18 per kg but at the end of the season, the price given was Rs. 5.50 per kg. Hence, the farmers feel that Mother Dairy cannot be counted upon to give remunerative prices in future.
- ◆ In addition to selling in SAFAL booths, Mother Dairy also sold a chunk of its procurement from the Federation in the Azadpur *Mandi* of Delhi. The farmers feel that, if Mother Dairy is selling their produce in just another *Mandi*, then themselves can take up this job and earn the direct returns without the services of Mother Dairy as intermediary in the already crowded channel structure.

13.0 SUGGESTED FUTURE STRATEGIES

The following are the various ways in which the Federation can proceed:

13.1 Facilitator

The Federation could don the roles of a transporter in the form of a facilitator. Since it commands the produce of nearly 500 farmers, it would be an easy task for it to collect the produce of the member farmers and after the required quantity is amassed, book the required vehicles from the truck union on its own and transport the same to the *mandis*.

Income to the Federation: If this method is adopted, the income that is generally earned by the transporter by means of charging storage expenses, *bilti* expenses and commission would accrue to the Federation. Also the truck union for loading the produce into the union's vehicles pays the transporters a commission of 5%, which can also be earned by the Federation.

Expenses to the Federation: The additional expenses if any that have to be borne by the Federation will be towards renting storage space, administrative expenses which will be basically as regards maintaining the '*bilti*' books and paying salary to a helper who will be required to assist the person-in-charge in the conduct of these activities. A one-time expense has to be incurred towards the purchase of a weighing machine, which would be very essential to carry out the intended transactions.

Operational aspects:

- ◆ The decisions as regards the *Aadthis* to whom the produce has to be sent or the *mandis* to where the produce has to be sent can be decided by both the farmers as well as the Federation by mutual consent.
- ◆ At this stage itself, the Federation can start networking with the *Aadthis* present in the far-off *mandis*. For example, the *aadthis* of Kanpur purchase the produce from Vikasnagar *mandi*. So instead of routing the produce through the Vikasnagar *aadthis*, the Federation can start directly dealing with them.

- ◆ The Federation has already employed a person to conduct its administrative functions. As this aspect does not involve much work, employing another helper would suffice.

The expenses incurred by the farmers will remain the same. But the income of the federation after deducting its administrative and other expenses can be ploughed back to the farmer members or the same amount can be utilised for creating the asset base of the Federation.

13.2 Intermediary - Local mandi

Presently, there is no local mandi at Naugaon, but under the Diversified Agriculture Support Programme, it is envisaged that local mandi would be developed at Naugaon.

The rules say that the farmers cannot directly sell their produce in the *mandi*. But the rules have a provision, which states that an association or federation of the farmers can facilitate the sale of their produce, that is taking up the work of an *Aadthi*.

In the event of a local *mandi* at Naugaon where the local people will act as *Aadthis* and the buyers will come from other *mandis*, the Federation can take up the role of a local intermediary. The success of any *Aadthi* depends on the quantity of produce of the farmers that he is able to command. As regards this aspect, in the case of a local *mandi* at Naugaon, the Federation will always be at a lead, as it will be assured a part of the produce of its members. Because of the returns it is able to deliver to its members, more farmers will be interested in gaining its membership and this will further strengthen the position of the Federation as a local intermediary, as the Federation will be able to command more and more produce of its increasing number of members. And this is the single most aspect on which the turnover, the profits and success of any *Aadthi* depends.

Income to the Federation: As is generally the case in any *mandi*, the commission that is charged by the Federation from the farmers as well as the buyers will be the income of the Federation. Commission charged by any *Aadthis* in any of the *Mandis* of Uttaranchal and Uttar Pradesh is illegal and against the rules of the *Mandi Parishad*. However, the Federation can collect the commission from its members with their informed consent, if they wish to pay the same.

Expenses to the Federation:

- ◆ To facilitate the sale of its member's produce in the local *mandi*, the Federation should obtain a licence by paying a licence fee and by depositing a refundable security deposit which are Rs.250/- and Rs.1000/- respectively in the case of *mandis* at Uttaranchal.
- ◆ The *Mandi Samiti* collects *Mandi Shulk* and *Vikas Cess* from the various players who facilitate the sale in the *mandis*. As such, the Federation would also be required to pay this. This will be calculated @ 2% approximately on the sale proceeds of the entire produce routed through the Federation by its members. Also, for the storage space that it would acquire at the *Mandi*, the Federation ought to pay a monthly rent, in addition to the monthly fees payable to the *Mandi Samiti*.
- ◆ In addition to the above-mentioned expenses, the Federation will also incur the usual administrative expenses, which would include stationery expenses, electricity bills etc.

Operational aspects: A minimum of three persons are required to undertake this activity – to call the bids and carry out the proceedings of the auction, to note down prices at which the sale has been made and to mark the packages in the name of the buyer. The bills to be given to the farmers as well as the buyers can be prepared by these people only. So the Federation will be required to employ additional staff of three persons.

The prices that the farmers will receive by selling their produce locally at Naugaoan itself will be less as compared to what they would receive if they send the same to Dehradun and Saharanpur *mandis*. This is due to the aspect that in this case, the transportation charges and the the risk of taking the produce from the '*pahad*' terrain will have to be borne by the buyer and not the farmers as is the case till date. The risk is in the form of roads getting blocked by landslides, a frequent occurrence in the mountains and this leads to spoilage of fruits and vegetables because of its perishable nature. However, it should be understood that in the event of a local *mandi* there would hardly be any expenses that the farmers will have to incur. That is no transportation expenses, no packing expenses and no miscellaneous expenses will have to be borne by the farmers, and the present time lag in the receipt of the payments from the far off *Mandis* will also be reduced. The income of the Federation and as such the returns that would be ploughed back to its members would be more as against the first system.

13.3 Intermediary – Collection centre

The above strategy is applicable only in the context of a local *mandi*. But there is still time for the local *mandi* to be set up. Under DASP, a collection centre where the farmers can store their produce has been commissioned for Naugaon and the same is being handed over to the Federation. The Federation will be conducting the activities of this collection centre.

In this context, the Federation can adopt the following strategy. The produce collected and stored at the collection centre would be sent to the *mandis*. Instead the Federation can invite the *Aadthis* from different *mandis* to Naugaon to purchase the same. The transactions could be based on a pre-determined price or the produce could be sold even under a system of open auction in case there is more than a single buyer at one point of time.

Income to the Federation: The Federation can charge service charges from the farmers for facilitating the sale of their produce as well as commission from the buyers.

Expenses of the Federation: The Federation will have to mainly incur administrative and maintenance expenses in the context of a collection centre.

Operational aspects: It will be the sole responsibility of the Federation to make contacts with *Aadthis* of different *mandis* and invite them to procure the produce of its members at Naugaon itself. The Federation should be able to convince and assure these *Aadthis* about the quality of the produce and should be equipped enough to provide the best services to them. Care should be taken as regards interacting with *Aadthis* who do not pay promptly. Also it would be essential to require the presence of a minimum number of *Aadthis* at any given point of conducting the sale to ensure that there is no monopoly of any *Aadthis*. This will ensure better prices for the produce under auction.

Under this method, the expenses that would be incurred by the farmers as well as the prices that would be received by them will decrease. It would be the same as in the case of local *Mandi*.

13.4 Intermediary – Dehradun/Saharanpur Mandi

It will be difficult to sell the entire production of the Rawain region at Naugaon. So in case, the Federation restricts its operations only to Naugaon, then this will require the members to route a part of their produce again through the existing exploitative systems. The Federation commands the produce of its five hundred members and has the potential of commanding the produce of the other farmers of this region as well. So it can take up the role of facilitating their sale even at those mandis, where the produce of this region is generally sent.

The Federation can acquire the license for facilitating the sale of the farmers' produce as an intermediary at Dehradun and Saharanpur *mandis* and compete with the other *Aadthis* over there. This will ensure better prices as well as better returns to the farmers. As against the earlier suggested strategies, the expenses to be incurred by the farmers also increase because the cost of transportation to these mandis has to be borne by them. When the Federation dons the role of the intermediary, the farmers will not have to become victims of the misappropriations that are generally carried out by the *Aadthis* like misquotation of prices and quantities, deduction of irrelevant expenses and charging exorbitant prices for the input services rendered by them.

Income to the Federation: The Federation can charge nominal service charges from the farmers to meet the administrative expenses that will be incurred for facilitating the sale of their produce. It can also charge commission from both the farmers and the buyers in accordance with the prevalent practices of the mandis and then plough back the net returns to its members.

Expenses to the Federation:

- ◆ To facilitate the sale of its member's produce in the local *mandi*, the Federation should obtain a licence by paying a licence fee and by depositing a refundable security deposit which are Rs.250/- and Rs.1000/- respectively in the case of *mandis* at Uttaranchal.
- ◆ The *Mandi Samiti* collects *Mandi Shulk* and *Vikas Cess* from the various players who facilitate the sale in the *mandis*. As such, the Federation would also be required to pay this. This will be calculated @ 2% approximately on the sale proceeds of the entire produce routed through the Federation by its members. Also, for the storage space that it would

acquire at the *Mandi*, the Federation ought to pay a monthly rent, in addition to the monthly fees payable to the *Mandi Samiti*.

- ◆ In addition to the above-mentioned expenses, the Federation will also incur the usual administrative expenses, which would include stationery expenses, electricity bills etc.

Operational aspects: A minimum of three persons are required to undertake this activity – to call the bids and carry out the proceedings of the auction, to note down prices at which the sale has been made and to mark the packages in the name of the buyer. The bills to be given to the farmers as well as the buyers can be prepared by these people only. So the Federation will be required to employ additional staff of three persons.

Place utility, which implies making the product useful by moving it from the place of production to the place of consumption, is the aspect that comes into picture in this context. The benefits of the same can be reaped by the farmers themselves if they carry out this activity through their Federation.

13.5 Intermediary – Other Mandis

This is an extension of the above-mentioned strategy. The more closer the farmers go to the customer, the better returns they can reap. Instead of routing their produce through the existing intermediaries, they can channelise their sales through their own Federation. This strategy should not be adopted immediately. It should be preceded by any of the above-mentioned strategies. So capitalizing on the experience gained, the Federation can then spread its branches to bigger and outside *mandis* of Uttar Pradesh as well as Delhi.

Income to the Federation: The Federation can charge nominal service charges from the farmers to meet the administrative expenses that will be incurred for facilitating the sale of their produce. It can also charge commission from both the farmers and the buyers in accordance with the prevalent practices of the mandis and then plough back the net returns to its members. However as compared to the earlier case, the income earned for the same quantum of produce would be more because the sale price of the produce would be higher in these mandis.

Expenses to the Federation: All the expenses mentioned in the earlier case would have to be incurred by the federation. The federation will also have to incur expenses as regards creating information systems, which would ensure that the produce is being sent to those mandis where favourable prices are prevailing and also on insuring the produce in transit because of the long distances involved.

Operational aspects: A minimum of three persons will be needed to conduct the activity at the mandis. But then because of the increased scope of activity, to ensure information dissemination in the most efficient manner, the Federation would also be required to engage the services of people who will have to co-ordinate between the different places where the Federation's activity is being carried out.

The expenses that would be incurred by the farmers, the prices that would be received by them as well as the returns that the Federation would plough back to them would all increase. Also in this case, the risk involved for the farmer is high because of the perishable nature of his produce and the transportation over long distances.

13.6 Transfer of risk and ownership

Time utility implies making the products available to the customers at the time when they need it. This can be possible only if the produce can be stored till the time of making it available for consumption. Fruits and vegetables are highly perishable. However, to an extent storing these fruits and vegetables in cold storages, which are equipped with the best technologies, can help in creating time utility.

There are no cold storages near this region or near the mandis where the produce of the Rawain region is generally sold. The Federation, in such a scenario, can forward the cause of its members by requesting for cold storage facilities from the concerned authorities. If it is able to create an adequate asset base, it can undertake this activity of setting up a cold storage on its own.

However since the farmers of this region are small and marginal in nature, they do not have the capacity to store their produce for longer periods as they would be in want of cash. Also, till the sale is completed, the risk has to be borne by the farmer. So in order to create time utility, which would ensure more remunerative returns to its members and lessen their burden of risk, the Federation should don the role of a *Thekedar*. The Federation can purchase the produce from the farmers at the average of the last year's prices, store and sell the same when favourable market conditions prevail.

This is a very high-risk strategy, which involves high-returns. The risk in this case will be borne by the Federation and not by the individual farmers.

13.7 Linkages with organisations, processing and agro-based industries

On the lines of the relations it has with Mother dairy, the Federation can develop more linkages with the other organisations who are also involved in a similar line of activity as that of Mother dairy.

As regards developing linkages with processing and agro-based industries, there is a major problem that the Federation would face. Most of the vegetables in the Rawain region are grown during the off-season. The seasons during which these vegetables are grown by the Rawain farmers is very different from the seasons during which the farmers of the plains grow these vegetables. This is the sole reason for the profitable returns that the Rawain farmers are able to earn. During the seasons when the produce comes from the plains the mandis are almost flooded with the vegetables and during their peak seasons, the prices of these vegetables reach a bare minimum. So, most of the processing and agro-based industries, especially those who have storage facilities, buy their requirements during such peak periods, when these vegetables are available at throw-away prices. For example in Dehradun mandi, during the season of the plains, one kilogram of tomatoes are at times available at one rupee whereas during the season of the '*pahads*', the price of one kilogram of tomatoes rarely drops below three rupees.

However the Federation should get in touch with such processing and agro-based industries and discuss these issues. If both the parties can agree upon favourable terms and conditions, then this would also be a viable option.

13.8 Processing

All the above mentioned cases were strategies involving the creation of place and time utility. The federation can also reap the benefits by creating form utility. This can be especially done in the case of the produce, which is of a lower quality. However, for undertaking this activity, infrastructure support and technical expertise are required to the greatest extent. These are presently lacking in this Rawain region. There are already a number of players operating in this field. So aspects like finances, quality consciousness, competitive strengths and adopting the best technological practices should be given due consideration before taking up processing on a large scale.

Instead of undertaking the processing activities on its own, it can do the same by collaborating with the SHG Federation also promoted by HARC, which has recently ventured into these activities on a small scale.

13.9 Rawain Booths

The farmer is said to get the maximum returns for his efforts when he is able to reach the customer with the minimum number of middlemen operating between them. The Federation by starting Rawain booths on the lines of SAFAL booths being operated by Mother Dairy can help the Rawain farmers to achieve the same. This is a far-fetched strategy but then over a period of time, this could be made possible.

Earlier the farmers of this region were involved in horticulture activities only during four months in a year. Presently HARC as well as the Federation are putting in their best efforts to increase this period to eight months. This is very essential for starting Rawain booths because once the Federation starts its own outlets, the customers would expect it to supply fruits and vegetables to them throughout the year. Extending the period of horticulture activity in this region which

would directly result in increasing the produce and supplementing these efforts by maintaining cold storages would enable the Federation to achieve this objective of providing year-round supply. The Rawain farmers have recently ventured into horticulture. In the case of most of the vegetables, there are still in the experiment mode where they are trying out different varieties during different seasons. This aspect also needs emphasis because the customers prefer variety and the Federation should be in a position to deliver the same to them through its Rawain booths.

The implementation of this strategy would also require the Federation to possess a strong asset base, large number of committed members who are willing to support their cause, a good amount of experience in the trade of fruits and vegetables, support of agri-experts, ability to provide a varied product range and an efficient net-working and information system.

13.10 Changes in Bye-laws

If all the above mentioned strategies are to be implemented successfully, the following aspects ought to be included in the existing byelaws of the Federation:

◆ Minimum Participation

Every member must participate. We should establish minimum levels of participation (in terms of contribution of a minimum percentage of their produce) and may provide conditions under which those who do not meet those levels or who cease to participate may be made ineligible to hold office, to vote or to continue their membership.

This would be very essential especially in cases where the federation develops linkages with various organisations and makes a commitment to them for supplying a particular quantity. This is because, in case the market conditions are favourable in a particular season, the farmers may be more interested in sending their produce to the mandis. This will pose problems for the Federation in meeting its terms with these organisations. In the future when the market conditions become unsuitable, they will not be interested in dealing with the

Federation. In order to avoid such situations, it is essential for the inclusion of this provision in the byelaws of the Federation.

◆ Patronage Surplus

The surplus arising out of operations of the Federation shall be distributed in an equitable manner by

- Providing for development of the activities and objectives of the association.
- Providing for common services.
- Distribution among the members as may be admissible in proportion to their respective participation (based on the quantum of their produce channelized through the Fed.) in the business.

The Federation is already undertaking the first two activities. In cases where the Federation would want to plough back the net returns it has earned through any transaction, it should be done on the basis of patronage surplus. This would also serve as an effective means for encouraging the farmers to channelise a major proportion of their produce through the Federation because that will increase their share in the returns.

◆ Raising Funds

The federation should be empowered to raise loan, grant and donation from both government and non-government institutions. For this purpose, the liability of the members could be specified as five times their contribution.

Since the Federation does not have any asset base, it would be very difficult for any financial institution to provide any form assistance to it. The inclusion of this aspect would serve as collateral because the Lending institution would be assured of at least a particular amount from the members of the Federation.

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