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Revealing the hidden face, enhancing the role of women farmers:

A gender impact assessment study of CABI interventions in Muzaffargarh, Punjab and Skardu, Gilgit Baltistan

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Authors
Mehrunisa Malik
Babar Naseem Khan
Shakeel Ahmed
Naeem Aslam
Irshad Ali and
Dannie Romney

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Mehrunisa Malik, Development Lens (www.developmentlens.org); ORCID: 0000-0001-6921-6078

Babar Naseem Khan, Development Lens (www.developmentlens.org); ORCID: 0000-0002-9398-7822

Shakeel Ahmed, CABI, Opposite 1-A, Data Gunj Baksh Road, Satellite Town, PO Box 8, Rawalpindi, Pakistan; Email: s.ahmad@cabi.org; ORCID: 0000-0001-5937-1939

Naeem Aslam, CABI, Opposite 1-A, Data Gunj Baksh Road, Satellite Town, PO Box 8, Rawalpindi, Pakistan; Email: n.aslam@cabi.org; ORCID: 0000-0003-4603-8824

Irshad Ali, CABI, Opposite 1-A, Data Gunj Baksh Road, Satellite Town, PO Box 8, Rawalpindi, Pakistan; Email: i.ali@cabi.org; ORCID: 0000-0003-2646-3989

Dannie Romney, CABI, Canary Bird, 673 Limuru Road, Muthaiga, PO Box 633-00621, Nairobi, Kenya; Email: d.romney@cabi.org; ORCID: 0000-0002-5453-3932

Contents

Acronyms

AKRSP	Aga Khan Rural Support Programme
DfID	Department for International Development (UK)
FEG	Farmer Enterprise Group
FFS	Farmer Field School(s)
FGD	Focus Group Discussion
GAP	Good agricultural practices
NGO	Non-governmental organizations
PSDF	Punjab Skills Development Fund
Rs	Rupees
SDP	Satpara Development Project
TOF	Training of Facilitators
USAID	US Agency for International Development
WHH	Welthungerhilfe

1. Executive Summary

1.1 Overview

Working with women in the agriculture sector in Pakistan poses a challenge as agricultural extension and development staff are predominantly male and interactions for women with men outside the family are culturally not acceptable. At the same time, women in Pakistan play an equal role in agriculture as well as taking responsibility for household chores, including cooking and taking care of the nutrition of the family.

CAB International (CABI), Central and West Asia Office, based in Rawalpindi, has been working with partners in Pakistan to train farmers to improve agricultural production and participate more effectively in commodity value chains. Training courses and workshops have been developed and delivered on livestock management, high-value cropping systems, good agricultural practices (GAP), sanitary and phytosanitary measures, integrated pest and crop management, agricultural innovation systems and business and marketing skills to enable farmers to be more responsive to the market.

Although the majority of activities have taken place with men, training has also targeted women, through Farmer Field School (FFS) programmes in Gilgit Baltistan on tomato production and livestock and dairy development, in partnership with Satpara Development Project (SDP). In South Punjab, women have been trained in kitchen gardening (home vegetable production) including seed and stored grain management funded by the Punjab Skills Development Fund (PSDF).

This impact assessment research study will assist CABI in learning lessons on the effectiveness of the training programmes, vis-à-vis a gender focus, by evaluating the recipients' responses in order to analyse the social and economic impact on their lives. The lessons will then be used to plan and design further interventions to improve agricultural productivity of households based on defined gender roles and responsibilities.

1.2 The study sites

Muzaffargarh district, South Punjab province

Muzaffargarh is a riverine district of South Punjab with a heavy reliance on agriculture. Women in Muzaffargarh are actively involved in farming, taking roles in agricultural labour as well as livestock rearing and management. Responsibilities are identified for men and women of the household with a difference in their involvement more a function of their status than their ability to perform economically.

Women of relatively affluent households do not partake in active labour nor do the men of the family; they hire farm labour in the form of families that are either sharecroppers or that acquire the land on lease from the richer land-owning family. In these worker class families, men and women work equally, and divide chores in accordance to their roles. Women are usually responsible for vegetable growing, sowing, weeding and harvesting wheat and rice crops, and cotton picking. Similarly, women manage livestock such as cows, buffaloes and goats.

In less-wealthy households, the participation of women in decision-making is much greater than in the richer households, as they are equally productive and responsible for the household economy.

Area served by the Satpara Dam, near Skardu town in the Gilgit-Baltistan region

Skardu is a mountainous district in the Karakorams, a part of the Tibetan Plateau in Gilgit Baltistan. Agriculture and livestock management serve as a major livelihood source in Skardu with agriculture consisting of small landholdings used for orchards of fruit such as apricots, walnuts and apples, which serve as the main cash crops. Households also traditionally grow seasonal vegetables for household consumption.

However, although household nutrition is entirely dependent on agriculture and livestock products, the rural household economy is not. In most villages around Skardu town, male household members are involved in daily wage earning, regular employment or small-scale enterprises (shops, etc.) in Skardu town. Consequently, there is high gender interdependence within the household where women and men have their own responsibilities. As in other parts of the country including Muzaffargarh, women play the lead role in vegetable growing and animal rearing with men taking care of orchards and grain crops.

1.3 Investigative methodology

Sample selection

In order to investigate the project impacts, three levels were identified and agreed upon for appraisal: individual interviews, Focus Group Discussions (FGDs) and Key Informant Interviews. Sampling techniques in the two areas were different and followed criteria suitable to the intervention and location.

- In Muzaffargarh, the target group was the women who had received the three-month kitchen gardening course under PSDF. A sample (32% of the total) of trained women was selected from five out of eight villages where there had also been 1 day trainings given in 2010/11.
- In Skardu, two types of training (tomato and dairy) had been provided to men and women. A sample of 18% of the total number of farmers trained was interviewed. As more farmers had been trained in dairy production, a proportionate sample was taken: two-thirds from the dairy FFS, and one-third from the tomato FFS. To facilitate a comparative gender analysis, the sample had equal numbers of men and women and famers were selected from 13 of the 15 FFS to achieve geographical spread.

Photo: Mehrunisa Malik, Development Lens
Women who had received dairy training in Sundas Gond village, Skardu.

Indicators for change assessment at the household level

The following qualitative indicators were used for this study.

- Indicator 1: Change in financial status
- Indicator 2: Change in decision-making
- Indicator 3: Change in mobility and access
- Indicator 4: Change in nutrition
- Indicator 5: Change in internal and external recognition

These indicators were then further divided into measurable and relevant variables, results for which could be quantified to analyse any change in the rural household dynamics. Before- and after-training situations were reviewed using these variables, in order to ascertain impact. In the absence of a baseline, a 'before-training' situation was assessed on 'recall' by survey participants.

Summary of findings at both sites

The results of the research reinforced the contextual backdrop of the study. Individual surveys, FGDs with beneficiaries and their households and Key Informant Interviews defined gender partiality or preference as a function of household financial status/class, education and opportunities available.

CABI training contributed towards changing the trends in some parts of Skardu, and capitalized on emerging trends in Muzaffargarh. By challenging local norms, whereby training is given to male farmers only, the CABI training has contributed towards changing opinions, by demonstrating that women, as well as men, need and should have an opportunity to enhance their skills.

Household members in Skardu mentioned instances where they faced serious criticism for allowing their women to be trained. But once the same community saw the results, they appreciated the decision taken by the household. In Muzaffargarh, CABI responded to a request made by village elders to train the women as part of a flood rehabilitation project.

Photo: Mehrunisa Malik, Development Lens
Women trainees in Sundas Gond village, Skadu being interviewed during the gender impact assessment

Table 1.1 summarizes the key findings in each region, using the five change indicators.

Table 1.1: Indicators for change assessment at the household level at the two project sites

Muzaffargarh	Skardu
1. Financial status	
Training contributed positively towards income of male and female beneficiaries. The training also assisted certain women to earn, who had not been earning prior to the training. 29% of women interviewed have translated kitchen gardening into income through sales of vegetables and 18% have increased their contribution to household expenses, through savings made by growing rather than buying vegetables.	All of the male and female respondents trained in improved tomato production reported that they are selling increased quantities of tomatoes and processed products either from home or in the markets. In the case of dairy development, more than half of the respondents who had received the training reported that they are selling milk or dairy products (butter, ghee and yoghurt) as a source of income. Earnings have increased more for women than for men: 70% of women now earn more from tomato production compared with 30% of men; 32% of women earn more from dairy production compared with 10% of men. In addition, the dairy training has led to significant reductions (31–36%) in spending on dairy products for the trained households. Savings on tomato expenditure are greater for households of women trainees (34%) than those of men (14%).
2. Decision-making	
Trained women confirmed an increase in household decision-making regarding spending of money. From less than 5% reporting having a say in household expenses prior to the training, 45% reported having a say after the training. Most women claimed this is due to gaining technical skills from the training, which has increased their respect in the household and a perception that they are now able to intelligently participate in decisions regarding household spending.	As a result of training, the majority of women spend the money they earn due to improved production on the family and children's education, taking decisions together with their husbands. Decisions on spending money are taken together by the husbands and wives as a cultural norm. Although half of the men also spend the money they earn on their households, 20% reported using this money to buy things for themselves compared with less than 5% of the women doing the same.
3. Mobility and access	
Almost 30% of those interviewed said that since the training, they no longer need permission from male family members to go out of the house as they are seen to be more independent and capable of dealing with the outside community. However, most of these women also said that although they can go out of the house without permission, they choose not to do so due to cultural norms and values. In terms of access to communications, more women reported owning their own mobile phone after the training.	There was no change observed in mobility as a result of the training. Most of the women needed permission to go out of the house before and after the training, whereas most of the men do not require any permission. If need be, women do leave the house without permission in exceptional circumstances. Those women who do not need permission also reported that they do still obtain permission from the elder of the family. A positive trend was recorded in terms of an increased number of women having their own mobile phones after they received the training.

Table 1.1: Continued

Muzaffargarh	Skardu
4. Nutrition	
The successful adoption of kitchen gardening has resulted in an increased use of home-grown vegetables in the daily diet of the households of the trained women. Prior to the kitchen gardening training, home-grown vegetables constituted just 7% of average family diets among trainees in Punjab. This rose to 20% after the training, with 97% of the women reporting an increase in the use of vegetables in their households since the training, when specifically asked. Homegrown vegetables have replaced market bought vegetables and pulses, which has resulted in increased savings. Most respondents reported that the female and male household members eat the same food and there is no preference in the allocation of food portions. No change in this due to the training was reported.	Focus Group Discussion results indicated household nutrition has improved considerably as a result of the training, as there is more milk and milk products to consume as well as fresher tomatoes available to eat. Nutrition in children has improved in the case of tomato production, as use of fresh tomatoes and puree has made regular food more palatable. Moreover, interviewees reported that stomach-related diseases have decreased. These had previously occurred as a result of using stale tomatoes bought from Skardu market, which were imported from down-country Pakistan to meet local demand. All interviewees responded that men and women eat the same food and most said there is no preference in the allocation of food portions to any household member.
5. Internal and external recognition	
A large number of the women reported that they have observed a positive behavioural change in their family members towards them, as a result of the training, and that they now receive more respect. More than 50% also reported that their advice is now taken in the spending of money and buying assets for the household. In terms of external recognition, the trained women said that other women in the community are now taking their advice a lot more for growing vegetables and learning new techniques. They have also been training other women in their family and close friends in the kitchen gardening techniques.	Most women (73%) have noticed a change in behaviour towards them within the household since the training, with a majority of these mentioning that they are more respected and their advice on spending money is asked for. The households reported that since the training the women have been getting more respect in the community. They are seen as skilled and other women approach them for advice and tips in tomato growing and livestock management. When the female members of households of the trained men were asked, they said that even if the men are not all applying their training, they had learnt a new skill and are respected more in the community because of that.

2. Background to the Study

2.1 Understanding gender mainstreaming[1]

Gender mainstreaming strives to identify and strengthen roles of men and women in accordance with the social attributes and opportunities associated with being a man or a woman. These roles are usually based on cultural norms, education level and tolerance in a given society. Often these roles are misunderstood or misinterpreted due to preconceived notions with regards to the responsibilities of a particular gender. This happens because the attributes and opportunities are context and time specific, hence changeable. Also, the gender equality debate is not about making man and woman the same, but about giving equal opportunity and value to each gender. This can only happen when household roles are evaluated, and the diversity within is established. The difference varies across social context, with inequalities and differences in responsibilities assigned, activities undertaken, access to and control over resources and decision-making opportunities. Hence the success of any intervention is based on identifying these roles correctly, and then working with each gender in accordance with his/her skill and responsibility.

This study is based on the above definitions and concepts, and has attempted to review and assess the impact of CABI training targeting women beneficiaries with a gender lens by evaluating the recipients' responses to analyse the impact on their lives, both social and economic. The lessons will in the future be used to plan and design further interventions to improve agricultural productivity of households in the Pakistan context based on defined gender roles and responsibilities.

2.2 Contextualizing gender dynamics in rural Pakistan: a literature review

Agriculture and livestock management in rural Pakistan has remained a household rather than an individual responsibility. Men and women have been cultivating and harvesting crops, and rearing livestock alongside, in a joint fashion. The Pakistan Labour Force Survey shows that in 2013, 40% of the rural labour force in Pakistan was female (GoP, 2013a). Government of Pakistan statistics also show that 75% of the total female labour force in Pakistan is working in the agricultural sector (GoP, 2013b). These statistics, however, do not account for agricultural work carried out by women informally as part of household chores and family helpers, indicating that the actual numbers of women working in the sector are far higher.

FAO's 2011 report on '*The State of Food and Agriculture*' focuses on '*Women in Agriculture; closing the gender gap for development*'. FAO reports that women are the backbone of the rural economy, especially in the developing world. Yet they receive only a fraction of the land, credit, inputs (such as improved seeds and fertilizers), agricultural training and information compared with men. Women, on average, comprise 43% of the agricultural labour force in developing countries and account for an estimated two-thirds of the world's 600 million poor livestock keepers (FAO, 2011).

The responsibilities for agriculture in Pakistan are generally shared on the basis of gender difference (such as men doing the harder labour), but that is not necessarily always the case. Agricultural labour and productivity has lately become more a factor of labour efficiency than gender. This is mostly the case across Pakistan, and especially in Punjab and Gilgit-Baltistan. Cultural values and levels of education also influence the division of agricultural activities between men and women. Overall, women tend to be equally (if not more) efficient than men when it comes to rural labour intensive activities.

Numerous studies have confirmed the participation of women in almost every sphere of agricultural activities, in addition to their household responsibilities. In addition to normal domestic chores of cooking, cleaning, maintaining the house, caring for children, and fetching water and fuel, rural women are actively involved in time-consuming agricultural activities and caring for livestock (Khurshid et al., 2013). Despite this dual role, the economic contribution of women in rural households is still underestimated or missed altogether (Begum and Yasmeen, 2011).

Tibbo *et al.* (2009) highlighted the gender involvement in various crop-related activities in the province of Punjab. Although women are involved in almost all agricultural activities, their participation is much higher in weeding, seed cleaning, and drying, storage and binding of crops. They are also jointly engaged with men in harvesting. Men dominate off-farm and distant

Photo: Mehrunisa Malik, Development Lens
Livestock assets in Sundas Gond village, Skardu

1 This section benefits from the concepts and definitions provided by UNWOMEN, United Nations Entity for Gender Equality and the Empowerment of Women.

activities, such as marketing and transport, and mechanized activities, such as threshing and land preparation. These findings have been corroborated by others in similar research in South Asia, such as the study by Prakash (2003) who showed that physically demanding agricultural activities and those requiring travel are dominated by men in India, while women undertake tasks closer to home.

Similarly, according to Khurshid et al. (2013), the majority of women in Pakistan's rural areas, including Skardu, Gilgit Baltistan, are involved in the livestock production process including feeding, grazing, housing and milking of animals. They also collect fodder, clean sheds and process animal products. However, their involvement in livestock management is undervalued and regarded as housework. (Reddi, 2003; Nazli and Hamid, 2007; Amin *et al*., 2010).

Although women participate heavily in agricultural activities, FAO statistics show that women farmers in developing counties typically achieve yields that are 20–30% lower than men. However, many studies suggest that women can be as productive and as efficient (if not more) than men and would achieve the same (or better) yields if they had equal access to resources and services. Women also enjoy limited (if any) benefits from extension and training in new crop varieties and technologies because of cultural attitudes, discrimination and a lack of recognition of their role in food production (FAO, 2011).

Pennells (2011), in a gender analysis of agriculture in Punjab, documents examples of activities and time input by men and women farmers in rice production. In her field research in Punjab, she found that women spent two or three hours in rice production for every hour that men spent. Time-consuming activities for women are hand-harvesting (60% of total time input is by women) and threshing and transplanting which are carried out only by women. Men take care of the mechanized activities, buying inputs and selling rice. The decision-making on all activities relating to rice production also lies with the men, with women having the decision-making powers once the rice enters the household for food preparation. It is important to note here that the skills required for rice production are well differentiated between men and women. Skills such as transplanting and seed storage are only possessed by women, while those of marketing and pest management are solely possessed by men. This indicates that rice production in Punjab is a family activity, where both men and women are equally important.

Further studies illustrate that women in rural Pakistan can be as efficient as men in seed bed preparation, tilling, sowing, fertilizer application, fodder cutting, weeding, intercultural operations, transplanting, husking, threshing, drying, storing cereals and fodder, selling agricultural commodities and harvesting of all the crops, fruits and vegetables (World Bank, 1989; Shah & Khan, 2004; Khurshid *et al*., 2013).

Women perform all these vitals roles in agriculture, livestock management and the household, but due to lack of access to resources, information sources and technical guidance, they struggle with time constraints. Additionally, rural women in Pakistan are often deprived of education, nutrition, medical attention and security which results in them lagging behind international standards of crop production, livestock management and post-harvesting operations, leading to low crop yield and poor produce quality (Iftikhar et al., 2007).

According to Butt et al. (2010), the prevailing reasons behind the constraints to rural women learning efficient agricultural practices or approaching agricultural extension education services are cultural norms, male dominance, traditional belief systems, less availability of time and resistance from family members. These findings have been observed in other studies such as Raju et al. (2001), FAO (2001) and Sadaf et al. (2005), who report that less time availability, cultural norms and male dominance reduce the efficiency of women farmers.

It is also important to note that decision-making at the household level is not usually an aspect of gender, but more of cultural norms and traditions of the 'elder'. The elder is usually the decision-maker in a household, who is consulted and apprised before any household-level decision is taken. This elder can be a grandfather or a grandmother, a father or a mother to his/her sons and daughters, or an elder brother or sister to his/her brothers and sisters. The power dynamics revolves around a hierarchy where the elder of the house dominates, and subsequently elders of the tribe and of the clan. It is seldom that the tribal or village elders are women, but it is quite common to have female heads of the family. The gender dimensions in the rural areas are hence complex, interdependent and changeable.[2]

Women as a gender are marginalized[3] in the rural areas of Pakistan (especially in South Punjab in this study). However, the degree of exploitation of individuals within a community is not only a result of gender, but also a consequence of woman's class, ethnicity and religious origin. For example, in order to establish control of a particular area, or to settle a feud between the powerful and the powerless, women of the weaker party are more often exploited and used to teach the men of the

2 Findings of the consultants from the FGDs with heads of families, both male and female.

3 Rural women in Pakistan are often deprived of education, nutrition, medical attention and security due to which they are lagging behind in international standards of crop production, livestock management and post harvesting operations, resulting in low yield of the crops and poor quality of the produce (Iftikhar et.al, 2007).

cast, tribe or clan a lesson. Within the household – whether of the powerful or powerless – women command a stronger role than in the past, more so now if they are educated. Nevertheless, gender remains the single most dominating factor when it comes to any social research in rural Pakistan and women are still exploited

It is also worth mentioning that in the past decade or so, gender dynamics in Pakistan have changed across rural and urban areas, with a focus on improved education and health opportunities for women. Except for rural KPK (Khyber Pakhtunkhwa) and Balochistan provinces, women in Pakistan are now having a greater role in decision-making as the number of educated wives and mothers is increasing. Inflation and the higher cost of living are other contributing factors to men allowing women in the family to earn money and participate in decisions on expenses and savings. Government of Pakistan statistics show that the literacy rates (in the population ten years old and above) have been on a steady, albeit slow, upward trend. Female literacy increased by 10%, from 38% to 48%, from 2001 to 2013, compared with male literacy, which rose 8%, from 63% to 71%, over the same period. Statistics also show that the enrolment rate of girls in primary school increased from 38% to 54% during that time. (GoP, 2005, 2014).

However, mobility of women is still constrained across Pakistan, particularly in rural areas. This has its basis in the traditional, tribal-oriented society where movement of women and children by themselves outside the house was thought to be unsafe, especially after sunset. In recent times, the situation for women in cities has improved considerably, with women using public and private transport to cover distances without any accompanying male family member, but women's travel remains inhibited in rural areas. Women who work on farms or girls who study do move about by themselves during the day, but only over limited distances. In the case of longer-distance travel, visiting new/alien locations, or leaving the house after sunset, a male family member accompanies them, which can even be a younger brother or a mother's young son. This is part of the culture that dominates all of rural Pakistan, and will take time to change given the ever-deteriorating security situation in the country.

2.3 The CABI interventions

Realizing the potential women farmers have in Pakistan and also recognizing the constraints they face, CABI developed a women-based skill-enhancement project in Muzaffargarh focusing on improving household-level productivity. By training women, with the support of PSDF, in establishing and managing kitchen gardens, CABI contributed towards enhancing gender-based household production systems and also to improving household nutrition. PSDF is managed by the Punjab Government and funded by the UK Department for International Development (DfID). A total of 500 women were trained by CABI across 25 villages over the course of a year (2013/14) in Muzaffargarh. Training centres were set up at the village level, each catering for 25 women between the ages of 15 and 45 who had received at least eight years of schooling.

Another project took place in Skardu, Gilgit Balistan, implemented by CABI in partnership with SDP, a US Agency for International Development-(USAID) funded initiative of the Aga Khan Rural Support Programme (AKRSP). This project aimed to enhance farmer capacity in modern farming techniques that would help improve production, as well as provide marketable surpluses for a farming household. By providing training to men and women in tomato and dairy production, CABI assisted in improving the financial status and nutrition of Skardu households. Although the project did not exclusively target women, CABI ensured that the majority of beneficiaries were women farmers, only training men where the request came specifically from community organizations. The project trained 339 farmers (74% female) through FFS across 14 villages in the Satpara Dam area by introducing best agricultural practices.

The current study evaluated the outcomes of these two initiatives to determine whether there were positive impacts of the training on the agricultural productivity and nutrition of the households as well as the status of the women themselves. Table 2.1 provides a snapshot of the two sites.

Photo: Mehrunisa Malik, Development Lens
Woman trained in tomato production showing her tomato seedlings in Thakur Ranga village, Skardu

Photo: Mehrunisa Malik, Development Lens
Tomatoes being grown by a woman trained by CABI in Thakur Ranga village, Skardu

Training women in Muzaffargarh, South Punjab

CABI first worked in Muzaffargarh in 2010/11 following disastrous floods, contributing, along with many other non-governmental organizations (NGOs), to rehabilitating agricultural infrastructure and supporting farmers to produce food. This work was funded by Welthungerhilfe (WHH). Women in the area were not permitted to move about freely and therefore training in kitchen gardening was seen as an approach to allow women to contribute to family nutrition while not contravening culturally accepted norms. A total of 2100 women were trained during one-day sessions, and received seeds and other inputs. As reported by CABI during a Key Informant Interview, visits to the villages one year later suggested that 80% of the trained women were growing vegetables so that they were using different vegetables at home than previously and they had even started growing outside the homestead – with the husbands selling vegetables at the market. With the earnings, the women reported purchasing goats and other items. The results from training women in agricultural production were reported as more positive than similar interventions carried out at that time with men as the latter were not interested in this activity.

Photo: Mehrunisa Malik, Development Lens
Board for the WHH project on Recovery of Agricultural Production in Flood Damaged Communities of Muzaffargarh in Budh village, Muzaffargarh

Following the success of the short kitchen gardening training in 2010/11, CABI implemented another training project in Muzaffargarh on kitchen gardening (home vegetable production) including seed and and grain management, funded by PSDF, in 2013/14. The objectives were to support the poor and to improve livelihoods through skills enhancement. Activities included training in skills for jobs, farms and markets. The kitchen gardening training provided by CABI with PSDF support was designed to be more detailed than the previous one-day sessions, with training lasting three months. The sessions included written modules, tests and demonstrations on demo plots, with the women required to replicate what they learnt in their homes simultaneously. The training was publicized by CABI at the Union Council level and through meetings with influential community members and social mobilizers in the targeted villages.

Photo: Mehrunisa Malik, Development Lens
Kitchen garden in the house of a woman trained by CABI in Dinganaywala village, Muzaffargarh

With the aim of maximizing the effectiveness of this detailed training, CABI established certain criteria that had to be fulfilled by the women applying for it. Selected women were to be between 15 and 45 years, be educated up to at least 8th grade, and have some landholding for growing vegetables. To take care of cultural sensitivities, it was essential that any woman applying for the training had the support of her family to take part. Five hundred women meeting these criteria were trained in four batches. For each batch sessions were run in five centres set up at the village level, each providing training to a class of, on average, 25 women from that village as well as neighbouring villages. As women in Muzaffargarh would not be able to receive training from male trainers for cultural reasons, CABI ensured that female trainers were hired in all the centres.

Training men and women in Skardu, Gilgit Baltistan

Photo: Mehrunisa Malik, Development Lens
Thakur Ranga village, Skardu

Under SDP, CABI organized a module-based training programme carrying out Training of Facilitators (TOF) and Farmer Field Schools (FFS) in vegetables and livestock management, which comprised two phases. In the first phase, TOF was conducted by CABI during September 2013 and May 2014 in the Skardu SDP-AKRSP office. A total of 15 training participants comprising nine SDP project staff, four Government staff, and two Local Support Organization representatives were trained in modern methods of tomato and dairy farming.

Under the second phase of the project, the TOF participants established 15 FFS in the SDP project area. The social mobilization and Farmer Enterprise Groups (FEGs) established by SDP-AKRSP in the target villages were used to garner interest in this training, set up the FFS and identify participants. The only criteria were that the trainees be residents of the Satpara Dam command area, and be FEG members. With technical assistance provided by CABI, the TOF participants trained 339 (88 male and 251 female) farmers in the FFS intermittently over a period of six months using participatory methods. The farmers were encouraged to work in groups to explore issues related to tomato production and livestock management and their practical implementation in the farming communities. Issues related to successful planning and implementation of GAP through integrated crop management were explored.

Five FFS provided training on tomato growing and seed production, training 87 women and 15 men. The other ten FFS trained 164 women farmers and 73 men farmers on animal husbandry and dairy production.

Table 2.1: Snapshot of the two evaluation sites, Skardu and Muzaffargarh

Factors	Muzaffargarh	Skardu
Geographical location	A riverine district located in the southern part of Punjab province	Located in the Tibetan Plateau, at a high altitude in the northern region of Gilgit Baltistan
Project objective	Two projects: 1. To restore the livelihoods of flood-affected communities through rehabilitation of agricultural infrastructure and kitchen gardening 2. To focus on skills development for female farmers in kitchen gardening including seed and stored grain management	To build capacity of farming communities in modern farming and livestock management techniques to increase the production of marketable surpluses
Project duration	November 2010 to October 2011; November 2013 to October 2014	September 2013 to October 2014
Number of beneficiaries	Kitchen gardening training was given to 2100 women in 2010/11; and 500 women in 2013/14	A total of 339 farmers was trained, with dairy production training for 164 women and 73 men, and tomato production training for 87 women and 15 men
Gender	Training given to women farmers only	Training given to men and women

3. Muzaffargarh: Detailed Results

3.1 Sample selection

Individual survey

The target group for this region was the women who had received a three-month kitchen gardening training course under PSDF. At the time of the study 179 out of a total of 500 women had completed training. A sample of 32% of these 179 trained women was selected from five of eight targeted villages[4] (Table 3.1). The numbers selected from each village are presented in Table 3.2. Individual household-based interviews were conducted with these 58 women; 72% had received just the three-month training, and 28% had received both the three-month and the previous one-day training (Figure 3.1). Nearly 80% of the respondents were chosen from the batches that had been trained in 2013 so that enough time had passed since the training to effectively assess the gender impacts (Table 3.3). The remainder came from the training in early 2014.

Photo: Mehrunisa Malik, Development Lens
Kitchen garden of a woman trained by CABI in Ghalli Chowk village, Muzaffargarh

Table 3.1: Survey sample size

Individuals/villages	Total	Sample size	Percentage
Trained women	179	58	32
Villages	8	5	63

Table 3.2: Village sample

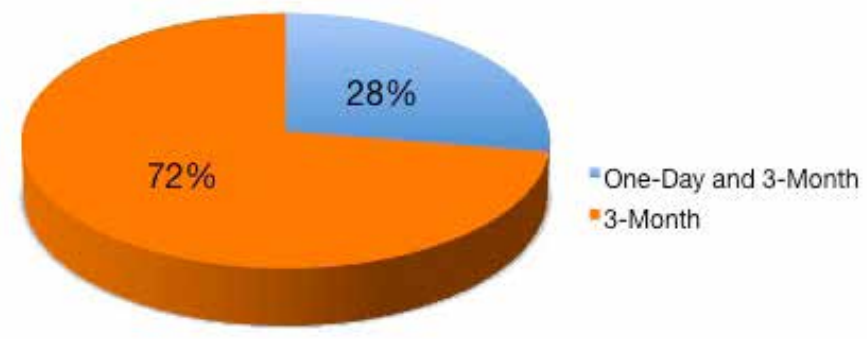
Village	Sample size	Percentage of total sample
Bhakkar Noon	14	24
Dinganaywala	10	17
Ghalli Chowk	10	17
Khairawala	17	29
Roddan Wala	7	12
Total	58	

Table 3.3: Training sample

Type of training	Year trained	Sample size	Percentage of total sample
One-day & three-months	2011 & 2013	15	26
	2011 & 2014	1	2
Three-months	2013	31	53
	2014	11	19
Total		58	

4 These eight villages were identified by the project management as ones where earlier 1 day trainings had taken place as well as training under the PSDF project

Figure 3.1: Training taken by respondents



Focus Group Discussions

A total of 15 FGDs were conducted focusing on communal issues. Three types of FGDs were conducted in each village (Table 3.4) with:

1. Trained women (39 participants)
2. Untrained women (42 participants)
3. Male members of households of trained women (fathers, husbands, sons, etc.) (ten participants)

As the timing of the field visit coincided with the peak agricultural season, almost all women were busy harvesting rice, picking cotton and sowing wheat. Therefore, not enough trained women were gathered to allow different women to be included in the individual survey and the FGD. The trained women for the FGD were therefore selected from the sample of 58 women previously interviewed for the individual survey.

The selected untrained women were chosen based on their availability to speak to the researchers and their age. It was ensured that the untrained women were older than 15 years of age. Male members of households of the trained women were also selected based on their availability at the time. Table 3.5 presents demographics of the sample.

Table 3.4: Focus Group Discussions

FGD type	Number of participants	Number of villages/FGDs
Trained women	39	5
Untrained women	42	5
Male household members	10	5

Table 3.5: Demographics of the sample

	Respondents	
Parameter	**Number**	**Percentage**
Education		
Madrassa*	4	7
Basic literacy and numeracy	1	2
Primary	4	7
Middle	31	53
Secondary	14	24

Table 3.5: Continued

Bachelor's degree	4	7
Household size	**58**	
0–4	10	17
5–9	35	60
10+	13	22
Marital status	**58**	
Divorced	1	2
Married	33	57
Unmarried	22	38
Widowed	2	3
Number of children (married respondents)	**58**	
0–2	20	56
3–5	14	39
6+	2	6
	36	

*Madrassas in Pakistan are Islamic seminaries that teach mostly Islamic subjects, Arabic and some maths, logic and philosophy in order to help students understand the religious subjects. Madrassas are especially popular among poor families in Pakistan, partly because they feed and house their students.

3.2 Effectiveness of the intervention – from FGDs

Feedback on the effectiveness of the training was positive, overwhelmingly so for the three-month kitchen gardening training. According to the women who had received the one-day as well as the three-month training, the one-day sessions supported them by providing inputs, taught them newer land preparation techniques, and laid the foundation and instilled enthusiasm in them to attend the longer three-month session. The one-day training gave them confidence and demonstrated to their households that it was a useful activity, hence paving the way for greater participation in the three-month programme.

All of the respondents had been able to successfully translate the training into kitchen gardens in their homes, with some also managing to earn an income from the vegetables grown.

During the various FGDs, the trained women said that the training had been extremely beneficial as they were now a lot more knowledgeable about growing vegetables and had acquired technical skills. Most of them were already growing vegetables in their homes before the training. However, since the training they have been growing better varieties and getting better quantities, enough to share with friends and family or in some cases sell. In one of the villages, Khairawala, the women are able to produce a surplus using the newer techniques learnt from the training and hence have found it to be exceptionally useful from an earning point of view.

Photo: Mehrunisa Malik, Development Lens
Kitchen garden of a trained woman in Bhakkar Noon village, Muzaffargarh

Discussions with women who had not been selected for the training also gave positive feedback. They felt that the trained women had learnt good techniques that were resulting in a greater quantity and quality of vegetables. They also felt that the trained women, especially the younger unmarried girls, have become a lot more confident since the training.

Male representatives from households of the trained women rated the intervention as effective especially when provided

in the post-flood early recovery phase, as at that time the families had little cash and no seeds available.

In the FGD, the male household members confirmed that the kitchen gardening has helped improve household nutrition as well as, in some cases, the financial status. The role of women in the household was described as equal. Also, with the selection criteria requiring a certain level of education for a beneficiary to qualify, it has made the community in general appreciate the households who encouraged education for girls. According to the male household members interviewed, the role of women in decision-making at the household level is critical, especially in the nutrition of children and their education. In some cases, the male members confirmed that such decision-making is the sole responsibility of the lady of the house, and that they do not interfere or try to influence.

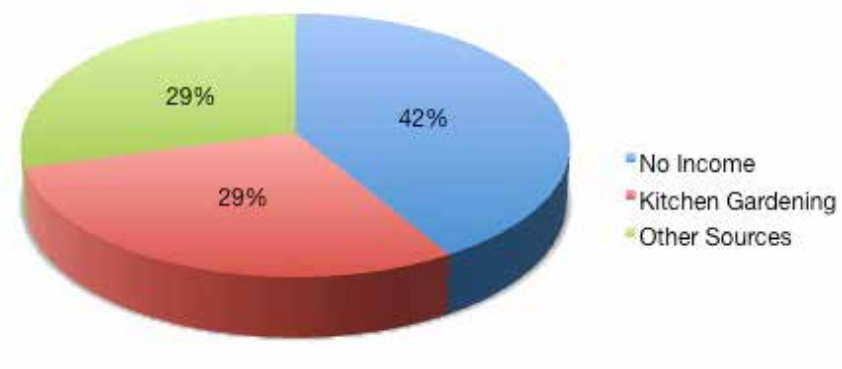
Photo: Mehrunisa Malik, Development Lens
Expansion in kitchen gardening after training by CABI in Muzaffargarh

3.2 Change in financial status

Variable 1: Personal source of income

Indicators for change in financial status (increase/decrease/no change in income due to training) showed that the training has contributed to improving the financial independence of about a quarter of the women trained. Twenty-nine percent of the 58 women interviewed said they have been able to translate the three-month kitchen gardening training into an income source (Figure3.2) by either selling from home or selling in the market.

Figure 3.2: Personal sources of income after training



Variable 2: Monthly personal income

Although, there is increased income from kitchen gardening, there has been little change in the monthly personal income of the trained women as shown in Table 3.6. The shift of 2% of the respondents out of the 'No Income' category is attributed to earning from kitchen gardening. Personal income earned by the women is spent mainly on household expenses and on children and their education. A small percentage (15%) reported using the income to buy things for themselves.

Table 3.6: Monthly personal income

	Respondents income - % of all respondents	
Income (Rs)	**Before training**	**After training**
11,000–20,000	0	2
5000–10,000	8	10
Below 5000	52	50
No income	40	38

Variable 3: Contribution to household income

To assess the change in financial status, in addition to income generation, another variable of 'savings due to vegetables grown' was used. Women were asked to comment on how much growing vegetables at home assisted with household expenses (food, health, education, clothing, utilities, etc.). This showed a positive trend of contributions to household expenses in terms of cash or savings, as shown in Table 3.7.

Table 3.7: Contribution to household expenses from savings due to vegetables grown

Contribution to household expenses	Percentage before training	Percentage after training
75–100%	3	3
50–74%	2	5
25–49%	24	38
0–24%	71	53

3.3 Change in decision-making

Variable 1: Decision to take the training

The second change indicator looked at the role of the trained women in household decision-making (Table 3.8). Twenty-eight percent of the interviewed women had made an independent decision to take the three-month training, while an equal number had their family members (father, mother, husband, brother) make the decision for them. The remaining 45% decided jointly after consultation with their family members to take the training. These findings can be attributed to a cultural trend in taking advice and obtaining permission from elders or male members of the family.

Table 3.8: Decision to take the training

Decision to take training	Number of respondents	Percentage
Self	16	28
Self and family member	26	45
Family member	16	28

Variable 2: Decisions on spending household income

The trained women showed an overwhelming increase in their participation in household decisions regarding spending of money. Figure 3.3 shows that from less than 5% reporting participation in household expenses' decisions before the training, 45% reported having a say after the training. Most women claimed that this was because they had gained a technical skill from the training, which increased their respect within the household and the perception that they are now able to intelligently participate in decisions regarding household spending.

Figure 3.3: Participation in decisions on spending household income

3.4 Change in mobility and access

The third indicator of change, mobility and access, revealed mixed results.

Variable 1: Access to communications

A positive change in mobile phone ownership was observed, with 9% of the women saying they had bought mobile phones after they had started to earn money from kitchen gardening (Table 3.9). Overall, 24% of the total number of women owning mobile phones claimed to be using them to contact customers and markets to sell their vegetables.

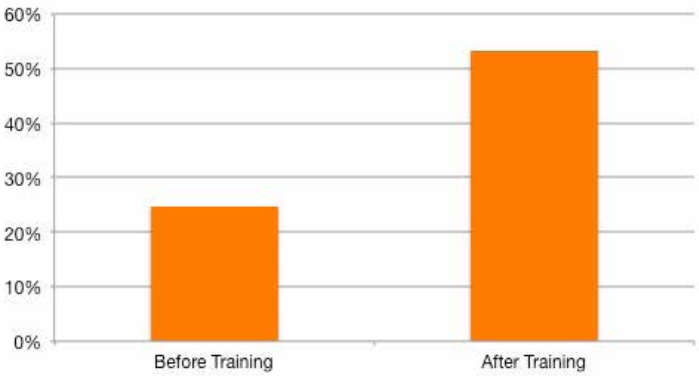
Table 3.9: Ownership of mobile phone

	Percentage	
Own mobile phone	Before training	After training
Yes	22	31
No	78	69

Variable 2: Physical mobility

Almost 30% of the interviewed women said that, following the training, they no longer have to seek permission from their male family members to go out of the house, as they are seen to be more independent and capable of dealing with the outside community (Figure 3.4).

Figure 3.4: Percentage of women not needing permission from male family members to go out of the house before and after training



However, most of these women also said that although they can go out of the house without permission, they choose not to do so due to cultural norms, which dissuade women from travelling alone without a male family member, especially after sunset. Furthermore, there was no change observed in women being allowed to travel or take public transport alone (Table 3.10 and Table 3.11). Customarily, a male family member, who can even be a younger brother, accompanies the women.

Table 3.10: Women travelling to nearby villages and markets

	Percentage	
Allowed to travel alone	Before training	After training
Yes	38	38
No	62	62

Table 3.11: Women on public transport

	Percentage	
Allowed to use alone	Before training	After training
Yes	26	26
No	74	74

3.5 Change in nutrition

Variable 1: Daily diet patterns

The successful adoption of new practices in kitchen gardening by all the interviewed women has resulted in an increased use of home-grown vegetables in the daily diet. Table 3.12 shows that home-grown vegetables made up 7% of the daily diet before the training but homegrown vegetables now form 20% of the daily diet, replacing market-bought vegetables and pulses. This is further supported by 97% of the women reporting an increase in the use of vegetables in their households since the training, when specifically asked (Table 3.13).

Table 3.14: Household eating habits

	Percentage of menu	
Daily diet	**Before training**	**After training**
Home-grown vegetables	7	20
Vegetables bought from market	22	12
Pulses	23	18
Others (wheat, rice, dairy, etc.)	48	50

Table 3.13: Use of vegetables after training

Use of vegetables after training	Percentage of women
Increase	97
No change	3

The findings of the individual surveys were analysed further in the FGDs. The respondents all agreed that since the training they and their household members have had more food to eat as they are now growing a reasonable quantity and variety of vegetables and feel less restricted in their use. They also stated that the fresh home-grown vegetables have replaced pulses and market-bought vegetables in their diet, supporting the findings of the individual surveys. The women agreed that consuming fresh home-grown vegetables means that they and their household members were eating healthier food. This is because vegetables available in the markets close to their villages are often stale, rotten or of low quality. The respondents also felt that they now have more independence in deciding what to cook as they are growing the vegetables themselves and are not dependent on male family members for getting groceries from the markets.

Variable 2: Consumption of food

Table 3.14 shows the gender equations within the families in the consumption of food and food preferences. Ninety-one percent of women responded that the female and male family members of the households eat together. A large majority (88%) reported that the female and male household members eat the same food and there is no preference in the allocation of food portions. They did not report any change in this due to the training.

Table 3.14: Household eating habits

	Percentage of respondents	
Indicator	**Yes**	**No**
Do the girls and women eat with the boys and men?	91	9
Do the girls and women eat the same food as the boys and men?	88	12
Is there any preference exercised in the allocation of food portions?	12	88

3.6 Change in internal and external recognition

Variable 1: Internal recognition and behavioural change

A large number of the surveyed women said that they had observed a positive behavioural change in their family members after they had received the training (Figure 3.5). All women who reported a positive change in the behaviour of their family members said that they are now respected more by them. Fifty-eight percent also reported that their advice is now taken on the spending of money and buying assets for the household. These changes are presented in Table 3.15.

Figure 3.5: Change in behaviour of family members after training

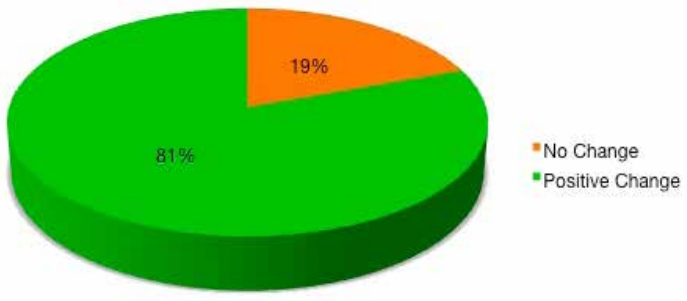


Table 3.15: Behavioural change of family after training

Behavioural change	Percentage
More respect & advice taken on spending money	58
More respect & advice taken on feeding household	23
More respect & advice taken on children's education	19

In the FGDs, the trained women stated that they felt that since they had acquired a technical skill they are able to share the burden of household expenses by contributing to the kitchen. They also felt that they have become more confident in expressing their opinions and participating in household discussions, and felt there is a difference between themselves and women who were not trained in these respects.

The answers to the same questions when put to the household family members of the trained women confirmed the above responses. The idea of providing a technical skill to the women of the house to improve their productivity is appreciated by the family members. They also confirmed savings due to the use of home grown vegetables, which are being used for children's education.

Variable 2: External recognition within community

During the FDGs the trained women said that other women in the community are now taking their advice a lot more for growing vegetables and learning new techniques. The trained women have also been training other women in their family and close friends in the kitchen gardening techniques.

The same questions when put to a group of untrained women elicited mixed responses. Most of them said that they felt the trained women have a greater social standing in the community, as some of them are now even more knowledgeable than the men. However, a few claimed that since all women grow vegetables in their households, regardless of the training, they do not think that the trained women are better off. All untrained women did, however, claim to take the advice and, in some cases, more detailed training in growing vegetables from the beneficiaries.

Household members in FGDs highlighted the important role girls' education plays nowadays. Many women and girls who wanted to be a part of the PSDF training were not selected since the selection criteria included a certain level of education (eight years of schooling). This has improved the social standing and recognition of girls seeking education and has made the community at large realize the importance of girls' education.

4. Skardu: Detailed Results

4.1 Project description

Skardu is located in the Tibetan Plateau, at a high altitude in Gilgit Baltistan. Although Human Development Index statistics are not available for Gilgit Baltistan, the region has better basic living standards than other remote areas of Pakistan, due to the development work carried out by the Aga Khan Foundation, especially AKRSP.

CABI partnered with SDP to deliver the project objectives to: improve capacity of farming communities in modern farming and associated value chains and; improve livestock management techniques to increase the production of marketable surpluses.

CABI carried out Training of Facilitators (TOF) and Farmers' Field School (FFS) for SDP, which was conducted from September 2013 to October 2014. Under this project, 339 male and female farmers were trained.

It was presumed in the inception report that women's participation and engagement in social and economic activities in Skardu would be greater than in many parts of the country. However, the study found that women's empowerment and engagement is a recent phenomenon, which is a result of a decade's investment in girls' education by AKRSP. So the role of women in household decision-making is still relatively limited, as the following sections reveal.

4.2 Sample selection

Individual survey

Two types of training were given to women and men in SDP, Skardu. One was to improve tomato production techniques through introducing best agricultural practices, while the other was on livestock management for dairy improvements. Training was first provided to 15 facilitators selected from SDP staff, government departments and communities using TOF sessions. The facilitators then conducted 15 FFS in 14 villages with 339 men and women (Table 4.1). Each FFS was conducted at the village level for a duration of six months. Out of the 15 FFS, ten were conducted for dairy development, while five were organized for tomato production.

Table 4.1: Total Farmer Field Schools participants

Type of training	Male trainees	Female trainees
Tomato production	15	87
Dairy development	73	164

Interviews were held with key informants for the study, with seven TOF-trained facilitators selected and interviewed. Individual surveys were conducted with 60 FFS participants from 12 villages, where equal numbers of male and female respondents were interviewed for a comparative analysis. The respondents represented 18% of the total numbers of farmers trained. Within the sample, numbers of tomato FFS respondents and dairy FFS respondents selected were based on a weighted average technique where the number of each type of FFS (five tomato, ten dairy) served as the weighing criterion. A total of forty dairy FFS participants (67% of the sample) and 20 tomato FFS participants were interviewed (33% of the sample) as shown in Figure 4.1. The sample was also spread over 13 of the FFS villages, so as to cover the geographic diversity of the project. Details of the sample are presented in Tables 4.2 and 4.3.

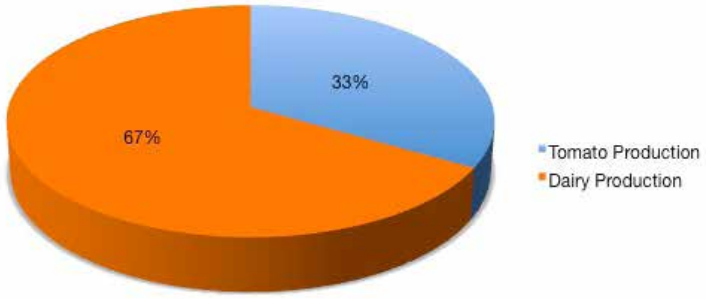
Table 4.2: TOF-trained Facilitators sampled

Facilitators	Total	Sample	Percentage
Satpara Development Project	9	4	44
Local Support Organizations	2	1	50
Local Government	4	2	50
Total	**15**	**7**	

Table 4.3: Selected sample of Farmer Field Schools beneficiaries

	Sample size			
Village	**Female**	**Male**	**Type of FFS**	**Percentage of total sample**
Abbas Town	2		Dairy	3
Astana Bala	2		Dairy	3
Bain Hussain Abad	2		Dairy	3
Gangchan	2		Dairy	3
Marfee Colony	2		Dairy	3
Nagolispang		6	Dairy	10
Qazimala Khore Sigri Kalan		5	Dairy	8
Sundus Gond	10	9	Dairy	32
Dairy – sub-total	**20**	**20**		
New Ranga	3		Tomato	5
Haider Abad Shigri Kalan		10	Tomato	17
Biafo Hussain Abad	2		Tomato	3
Fapa Shigri Khurd	3		Tomato	5
Thakur Ranga	2		Tomato	3
Tomato – sub-total	**10**	**10**		
Total	**30**	**30**		

Figure 4.1: Proportion of farmer respondents trained in tomato vs dairy production



Focus Group Discussions

Thirteen FGDs were held with household members to cover every village/FFS visited. The FGDs were conducted with female members of households of male FFS beneficiaries, and male members of households of female FFS beneficiaries. However, female members of households of trained men in Nagholispang were not available for a FGD due to a death in the community. The number of male FGD participants was lower due to their unavailability despite being informed in time as most men hold jobs outside of their villages, making it difficult for them to be present during the daytime. In Skardu it was noted that women have a greater role in agriculture, with most men's jobs being unrelated to agriculture.

Demographics of sample

A stark contrast between the education levels of men and women was observed. The majority of women were uneducated or had received Madrassa education, whereas 43% of the men had received higher education (Bachelor's and Master's), as shown in Table 4.4. This is particularly interesting as women were seen to have been more interested in the training, understood it well (including the technical elements), and were able to successfully apply what they learnt. Instruction methods for the female FFS worked on the basis of having tightly knit groups where the educated participants helped out the ones who could not read or write with the technical parts of the training. The reason for lack of interest among men is mainly attributed to the fact that vegetable growing and tending livestock are primarily carried out by the female household members.

Household demographics (Table 4.5) show that the household sizes and families of the study group are generally large. Almost 40% of married respondents reported having more than six children. The average age of the interviewed women trainees was 37 years, with a range of 26 to 60 years; while for men, the average age came out to be 36 years, with a range of 20 to 68 years.

Table 4.4: Education status of FFS farmer respondents

	Female respondents		Male respondents	
Parameter	**Number**	**Percentage of sample**	**Number**	**Percentage of sample**
No education	19	63	0	0
Madrassa	5	17	3	10
Basic literacy and numeracy	1	3	0	0
Primary	1	3	4	13
Middle	1	3	5	17
Secondary	2	7	5	17
Bachelor's degree	1	3	7	23
Master's	0	0	6	20
Total	**30**		**30**	

Table 4.5: Household demographics of FFS farmer respondents

Parameter	Number of respondents	Percentage
Household size		
0–4	2	3
5–9	29	48
10+	29	48
Marital status		
Married	54	90
Unmarried	6	10
Number of children (married respondents)		
0–2	5	9%
3–5	28	52%
6+	21	39%

4.3 Effectiveness of the intervention – from FGDs and Key Informant Interviews

Effectiveness of the training was measured throughout the study, including through Key Informant Interviews with facilitators, a survey of trained men and women, and FGDs with the households of the interviewed trainees. Feedback and perceptions from all important stakeholders involved in the process was gathered.

Key Informant Interviews with facilitators

Interviews were conducted with facilitators from SDP, local government and communities. The overall feedback for both tomato and dairy training was positive. The TOF and FFS approaches were new for all the facilitators and were appreciated as an effective tool to disseminate training in the communities.

The facilitators said that due to practical application and the ease of understanding the teaching methods, the trainees were able to learn effectively and easily adopt the techniques. However, they had the general perception that the training was more useful for women than men. Several reasons for this were provided, with the primary one being that tending livestock and growing vegetables are traditionally a woman's responsibility in Skardu. Men are generally working for daily wages or have jobs in cities, and are generally involved in labour-intensive agriculture, such as heavy lifting, ploughing and jobs requiring greater physical

strength. Their interest in dairy production and tomato-growing techniques was therefore limited. In cases where men are applying the acquired methods, the skills have been transferred to the women in their families. Male participants were more interested in 'monetizing' the training, i.e. learning how to market the produce.

Focus Group Discussions with household members

FGDs were conducted with female members of households of the trained men. The women felt that the training received by their husbands and sons had been useful for the family. However, the men had themselves only adopted the marketing skills taught to them. The technical skills for better tomato and dairy production had, in most cases, been transferred to the women who are successfully using them. All women reported that they have now increased household incomes, and are spending more on their children's education.

FGDs were also conducted with male members of households of the trained women. The men also felt that the training had been useful for their wives or daughters since, as a result, tomato and dairy production has increased significantly. However, only half of them reported selling the excess produce as they do not have market linkages. In the case of milk, selling is not culturally practised, rather its products are distributed, if in excess, among relatives and neighbours. Having said that, there are cases where families are now selling milk, especially the ones located close to Skardu town.

Individual survey with training recipients

The general perception of the women who had received the training was very positive. They were happy with the techniques taught to them and the results they have achieved by applying them. Men were also happy with the intervention, although the adoption rate was found to be lower in dairy trainees than tomato trainees.

The following section will explain the findings of the survey in accordance with the change indicators used to evaluate the impact.

4.4 Change in financial status

Variable 1: Personal source of income

The survey results showed a much higher adoption of tomato production as an income source compared with the dairy training following training. One hundred percent of the male and female respondents trained in tomato production reported that they are selling tomatoes and processed products either from home or in the markets. For 50% of the women, this is their sole source of income, adopted since the training, compared with the men, all of whom sell tomatoes as just one of their sources of income (Figure 4.2). Fifty percent to 60% of the respondents who had received dairy training reported that they are selling milk or dairy products (butter, ghee, yogurt) as one of their sources of income (Figure 4.3).

Figure 4.2: Tomato production as a proportion of income after training

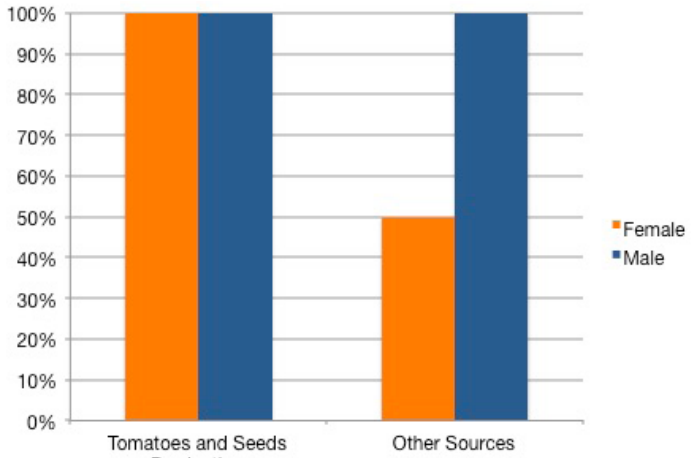
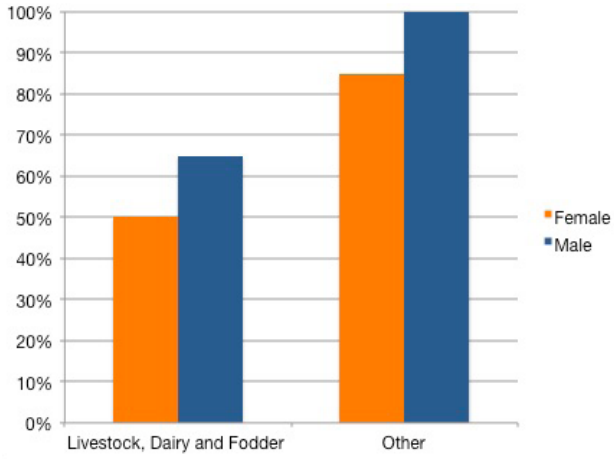


Figure 4.3: Dairy production as a proportion of income after training



Variable 2: Monthly personal income

Fifty percent of men and 10% of women who received tomato production training reported moving into the highest income bracket since the training. Before the training, none of the men and women earned to this extent. A significant number, 60% of the women, have also moved into the second-highest income bracket since the training (Table 4.6).

In the case of dairy production, 18% of female and 10% of male respondents moved into the highest income bracket after the dairy training, earning Rs. 21,000 and more each month. Before the training, none of the women reported earning in this bracket. A significant increase (14%) in the number of women earning Rs. 11,000-20,000 was also reported (Table 4.7).

Table 4.6: Income status of tomato trainees

	Percentage male respondents		Percentage female respondents	
Income/month (Rs)	Before training	After training	Before training	After training
More than 20,000	0	50	0	10
11,000-20,000	40	20	10	70
5000-10,000	40	20	70	20
Below 5000	20	10	20	0

Table 4.7: Income status of dairy trainees

	Percentage male respondents		Percentage female respondents	
Income/month (Rs)	Before training	After training	Before training	After training
More than 20,000	40	50	0	18
11,000-20,000	30	20	18	32
5000-10,000	20	30	50	39
Below 5000	10	0	31	11

Variable 3: Contribution to household income

To assess the change in financial status, in addition to income generation, another variable of 'savings due to tomatoes grown at home/increased milk production' was used. Women were asked to comment on the extent to which household expenses were saved due to them growing tomatoes at home or having increased milk production leading to reduced expenditure at markets. This showed a more positive trend for women than for men in both dairy and tomato production. Fifty-six percent of the women with dairy training and 50% of the women with tomato training are contributing 75–100% of their household's expenses as a result of the training, as shown in Table 4.8.

Table 4.8: Contribution to household income before and after training due to savings as a result of reduced expenditure on food

	Men		Women	
Contribution	Before training	After training	Before training	After training
Dairy				
75–100%	20	40	17	56
50–74%	10	30	50	28
25–49%	60	30	22	17
0–24%	10	0	11	0
Tomato				
75–100%	0	10	20	50
50–74%	10	10	20	50
25–49%	70	60	60	0
0–24%	20	20	0	0

The training assisted the beneficiaries in improving the productivity and yield of the tomato crops and livestock, which has helped in reducing household expenditure due to availability of surplus edible produce. The surplus particularly helps in reducing the household food budget, especially in the case of dairy, as there is more milk and dairy products available to be consumed as a

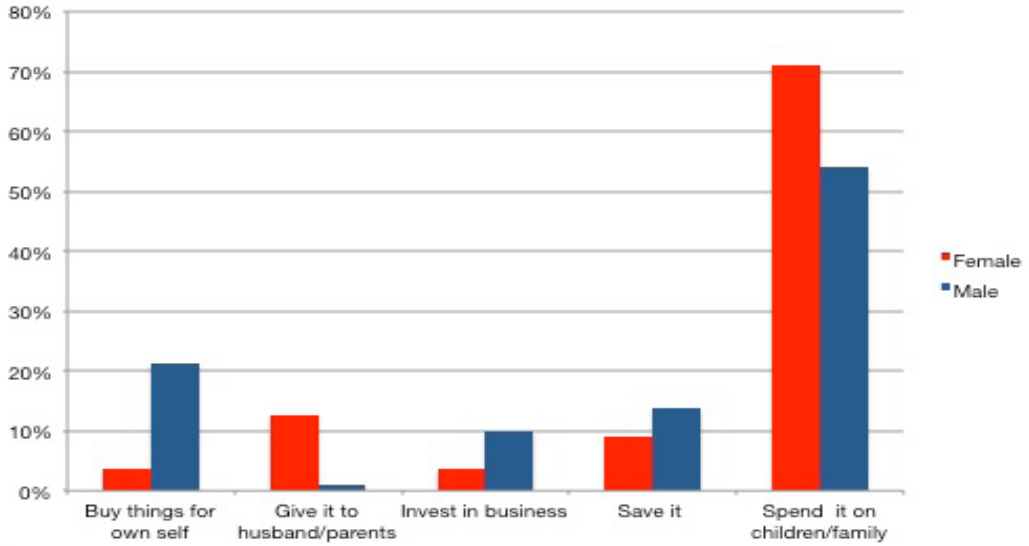
result of the training. It is worth noting again here that these communities had been growing tomatoes as well as having livestock prior to the training. The FFS imparted newer and modern techniques rather than introducing a new occupation or trade.

4.5 Change in decision-making

Variable 1: Decision in spending personal income

The second change indicator looked at the role of the trained men and women in household decision-making. The individual surveys show an encouraging change in this indicator due to the training. A small percentage of the women (10%) hand over the money they earn to their husbands or parents. However, the majority of the women (70%) spend the money on the family and children's education, taking decisions together with their husbands. Decisions on spending money are normally taken together by the husbands and wives. Although 55% of the men also spend the money they earn on their households, 20% reported using this money to buy things for themselves, compared with less than 5% of the women doing the same (Figure 4.4).

Figure 4.4: Spending patterns in personal income after training



Variable 2: Decision to take the training

Table 4.9 shows that the majority of the men decided to take the training independently (63%) or on the advice of community members (20%). Twenty percent of the interviewed women had decided independently to take the training, while an almost equal number made the decision jointly in consultation with their male family members (father or husband). Forty-three percent of the women had their husbands, fathers or brothers decide that they should take the training. This trend can be attributed to the cultural trend of elders or male members of the family making most family decisions.

Table 4.9: Decision to take the training

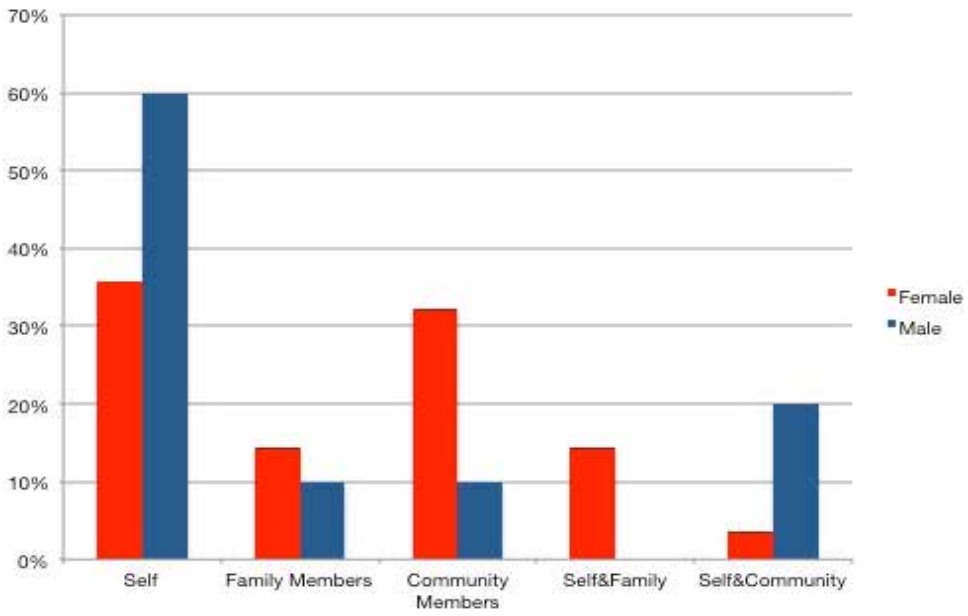
Decision to take training	Female respondents	Male respondents
Self	20	63
Self and husband/father	23	7
Husband/father/brother	43	6
Self and community members	0	20
Community members	14	4

Variable 3: Decision to earn from the training

Figure 4.5 shows that 36% of the women decided independently to earn an income based on the training received, while an almost equal number (32%) did this on the advice of community members. This reflects the high social cohesion that Gilgit Baltistan exhibits, due to having similar tribes and extended families sharing the same neighbourhood (and sometimes

the entire village). Additionally, SDP works through community organizations and not through individual households. A community organization collectively identifies and prioritizes the problems faced by a particular village and suggests solutions in a similar fashion. Sixty percent of the men decided independently to earn an income from the training. The high comfort level of men in approaching male-dominated markets and buyers may be a reason for this.

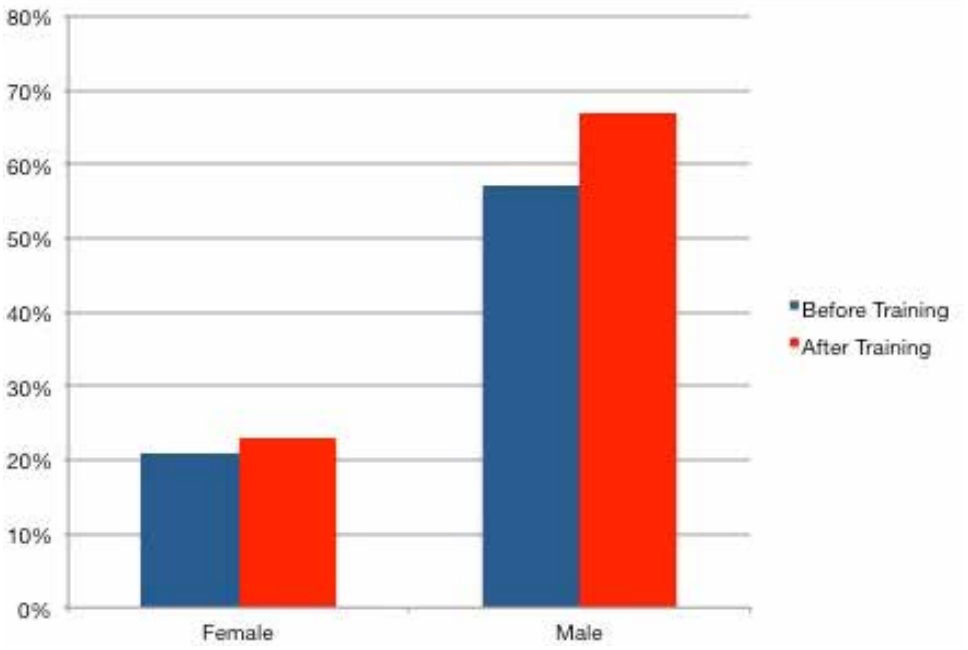
Figure 4.5: Decision to earn from the training



Variable 4: Decision on spending household income

Figure 4.6 shows that the independent decision-making power of women and men on spending money in the household changed little due to the training. The explanation given was that household decisions are taken either by husbands and wives together, or by men.

Figure 4.6: Able to make independent decision on spending household money



4.6 Change in mobility and access

Variable 1: Access to communications

A positive change in mobile phone ownership was observed among the trained women, with 17% of the women buying mobile phones since the training, as shown in Table 4.10. No change was observed in the mobile phone ownership of interviewed men as all men had mobile phones before they received training.

Table 4.10: Mobile phone ownership of female respondents

Ownership of mobile phone	Percentage before training	Percentage after training
Yes	31	48
No	69	52

Variable 2: Physical mobility

No change in the physical mobility of women or men was observed due to the training, as shown in Table 4.11. Eighty-seven percent of the women required permission to go out of the house both before and after the training, whereas 81% of the men do not require any permission. If need be, women do leave the house without permission in exceptional circumstances. The women who do not need permission also reported that they still ask permission from the family elder.

Table 4.11: Permission to go out of the house

	Women (percentage)		Men (percentage)	
Permission from	Before training	After training	Before training	After training
Nobody	13	13	81	81
Family member	87	87	19	19

A slight increase in the number of women allowed to travel to nearby villages and use public transport alone was reported after the training, as shown in Tables 4.12 and 4.13. One hundred percent of the men reported positively to these indicators both before and after the training. These findings are once again dominated by cultural norms and values as women are generally accompanied by a male family member when leaving the village or using public transport.

Table 4.12: Women travelling to nearby villages and markets

	Percentage	
Allowed to travel alone	Before training	After training
Yes	50	57
No	50	43

Table 4.13: Women on public transport

	Percentage	
Allowed to use alone	Before training	After training
Yes	30	37
No	70	63

4.7 Change in nutrition

Variable 1: Daily diet patterns

The FGDs with members of households of the trained men and women provided insights into the change in eating patterns in the household since the training. The household members agreed that they have more food to eat after the training. For the households benefitting from training in dairy, they claimed they now consume more processed dairy products, such as butter, ghee and yogurt, as they have more milk production. The women and children in the households are all consuming

these products. They are also able to buy more food due to increased income. The tomato-producing households are consuming a significantly larger amount of tomatoes since the training. Also, since they are all earning from the sale of tomatoes and tomato products, they are able to buy more and better food. This includes vegetables from the market in winter, which they were unable to do before the training. The male members of household of the women trained in tomato production all felt that the introduction of tomatoes in their food has resulted in the children eating more as the tomatoes have made the food more palatable. Processing techniques, especially making tomato puree, has resulted in the food becoming tastier. Additionally, stomach-borne diseases have reduced due to availability of fresher tomatoes. It is to be noted that tomatoes available in the market are all brought from down-country Pakistan, as domestic production in Skardu until now has been barely enough for the households to consume, let alone sell in the market. The tomato production training therefore appears to have contributed not only to improved nutrition at household level, but has also introduced a steady supply of tomatoes to Skardu market.

Table 4.14 contradicts findings in the FGD and shows that no trend in change in nutrition was observed due to the training. Although both men and women are now harvesting more tomatoes or producing more milk and milk products, the survey found that consumption of these in the households has not changed. This would imply that an excess is either being sold or shared with family and friends. The lack of observed effect on nutrition from daily diet patterns that disagrees with FGD findings may reflect a weakness of the questionnaire. As Table 4.14 reveals, dietary options are various for a household to choose from at any given time. Asking them to clearly identify a change, especially in substitution, is complex, and might have been a reason as to why a trend could not be established.

Table 4.14: Daily diet patterns

	Percentage of menu	
Daily diet	**Before training**	**After training**
Home-produced poultry/meat	4	5
Market poultry/meat	2	2
Home-produced dairy products	5	9
Market dairy products	2	1
Home-produced vegetables	23	24
Market vegetables	9	7
Pulses	13	8
Rice	16	15
Chapati	18	20
Local dishes/tea	7	8

Variable 2: Consumption of food

Table 4.15 reflects the gender equations within the families in terms of consumption of food and feeding preferences. Ninety-seven percent of the respondents said that female and male family members of the households eat together. One hundred percent reported that the female and male household members eat the same food and 93% reported that there is no preference in the allocation of food portions. They did not report any change in this due to the training.

Table 4.15: Household trends in food consumption

	Percentage of respondents	
Indicator	**Yes**	**No**
Do the girls and women eat with the boys and men?	97	3
Do the girls and women eat the same food as the boys and men?	100	0
Is there any preference exercised in the allocation of food portions?	7	93

4.8 Change in internal and external recognition

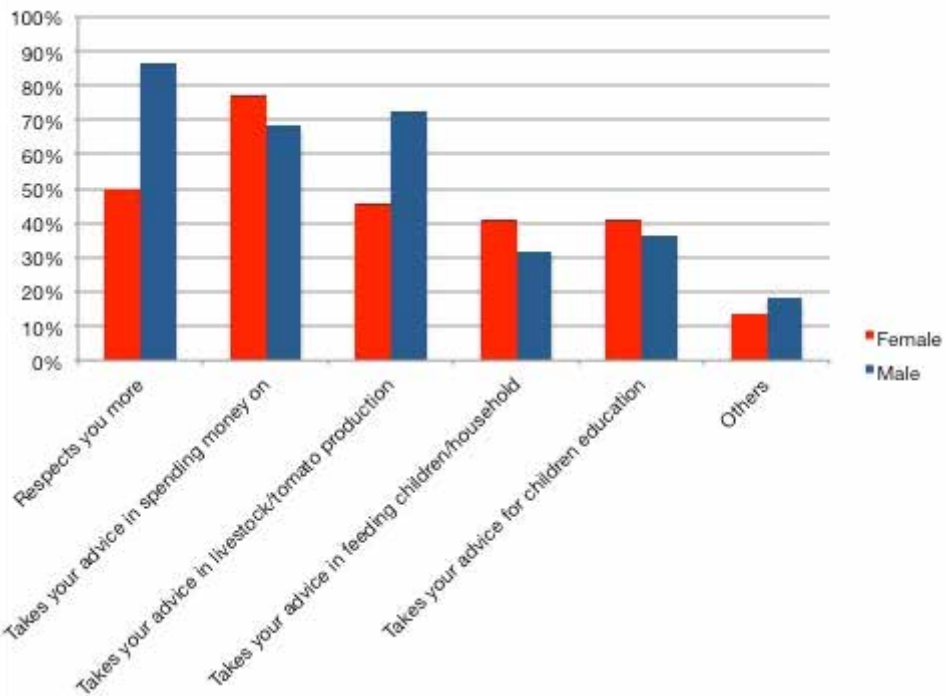
Variable 1: Internal recognition and behavioural change

Table 4.16 shows that 73% of the trained men and women felt that the behaviour of their families towards them had changed since they had received the training. The remaining 27% of women did not have a clear opinion on this, while a small fraction of the men (7%) felt there had been no change. A majority of those who reported a change in behaviour said that their families now respect them more, and their advice on spending money in the household is asked for (Figure 4.7).

Table 4.16: Positive change in behaviour of families towards respondents due to training

	Gender of trainee	
Change in behaviour	**Female (%)**	**Male (%)**
Yes	73	73
No	0	7
No opinion	27	20

Figure 4.7: Positive change in behaviour of farmilies towards male and female respondents



Most of the male members of households of the trained women agreed that the training had been beneficial and had improved the respect the women were getting within the family and in the community. This is because they are now more skilled and able to provide increased support to men and lessen the burden on them as the sole breadwinners, either by earning an income or producing food in the home that saves money otherwise spent at markets. They also felt that the women are able to participate more in decision-making and give their advice on matters related to household spending and children. Some of the male household members said that they faced initial criticism from other men in the community as they were allowing the women to attend the FFS. However, seeing the skills they had acquired, and the increased tomato and dairy production, this criticism had turned into praise. The men mostly felt that the women are able to take independent decisions since the training. Some respondents reported that their wives are now actively involved in household budgeting.

The female members of households of the trained men felt that the training had been beneficial for the household, but not specifically for the men. As the men are not involved in vegetable growing or livestock rearing, they are not getting any more respect than before. As the women are able to apply the techniques learnt by the men, and the men are able to market the produce, the household has more income. Internal recognition of the trained men has seen no change, as the men were

already the main decision-makers and breadwinners in the households. The women felt that the only aspects of the training that are useful for the men are marketing and dairy vaccinations.

Variable 2: External recognition within community

The male members of households of the trained women agreed that since the training the women are getting more respect in the community. They are seen as skilled and other women have been approaching them for advice and tips in tomato growing and livestock management. Although most of the women have not formally trained other women in their villages, they have all been giving tips and transferring techniques when asked. One male family member reported that his daughter trained in dairy and livestock has trained 60 other women in the village. Another male family member whose daughter received training in tomato production, has trained him in turn, and now he is cultivating tomatoes on additional land.

When female members of households of the trained men were interviewed, they said that even if the men are not all applying their training, they had learnt a new skill and are respected more in the community because of that. Other people come to them for advice, especially in tomato growing, which they have been providing. However, they have not formally trained any other men or women in their villages. The women did, however, especially in the case of dairy training, feel that it would have been more useful if they had received it rather than their male household members.

5. Conclusions

The study found a positive impact of CABI's training at both sites, at the individual, household and community levels. Although the sites were not comparable, since the interventions were similar in terms of targeted expertise and capacity enhancement, the following can be concluded for both the Muzaffargarh and Skardu sites:

1. Training design, content and instructional methodology were relevant and easy to learn and understand. The practical demonstrations and learning by doing helped the beneficiaries gain command over the skills that were taught.
2. Beneficiary selection was adequate at both sites, especially by gender standards. Strategies for selection were very different in the two sites and there appear to be trade-offs between the two approaches. In Punjab, only women with at least eight years of schooling were trained and this led to the community having a greater appreciation of the households who ensured education for girls. Trained women – especially younger unmarried girls – became a lot more confident after the training. However, the approach may have excluded poorer, less well-educated women that would have benefited from the training. In Gilgit, 80% of women trainees were uneducated or had received only Madrassa training. Women supported each other in tightly-knit training groups, with the few educated women helping the others to understand the more technical aspects. As a result, the women were seen both to be more interested and to learn more from the training than the men (43% of whom had higher education), and to successfully apply what they learnt.
3. Since at both the locations women were involved in the skill prior to receiving training, targeting them at the household level was the correct strategy. In contrast, results of training men in Skardu were not very encouraging. Men generally worked off the farm and were not directly involved in tomato production. Although men were able to share skills with female members of the family responsible for production, feedback from the households suggests it would have been better to train the women directly. It can be concluded that training in agriculture should be given to a household member in accordance with their assignments and responsibilities in agricultural and livestock. For example. training men in marketing and sales might have gained better results in Skardu, since the agriculture markets are male-dominated.
4. The results in Skardu showed that building capacity of the correct member of the household in accordance with his/her given assignment and activity resulted in greater improvements in household productivity, compared with the usual male-based agricultural approach. As data in Section 4.4 of the detailed results showed, all women who received training in tomato production and most of the dairy development recipients are earning more from these activities in comparison to men recipients, whose interest in earning from vegetable growing and dairy business is low and who have regular jobs away from the farm.
5. Although, in many cases, the beneficiaries did not increase personal income, there were benefits to the household through savings as a result of increased production and increased nutrition. In Skardu, for instance, the dairy training led to significant reductions (31–36%) in spending on dairy products for the households of dairying trainees. Savings on tomato expenditure in households of women trainees were also significant (34%).
6. Improvements in household diet were another outcome from the training. Prior to the kitchen gardening training, home-grown vegetables constituted just 7% of average family diets among trainees in Punjab. This rose to 20% after the training, with 97% of the women reporting an increase in the use of vegetables in their households. They also felt they had more independence in deciding what to cook, as they were not dependent on male family members buying vegetables for them from markets. In Skardu, dairying trainees claimed they were eating more processed dairy products such as butter, ghee and yoghurt and were also able to buy more food, through having increased income. Similarly, the tomato-producing households were eating more tomatoes and were able to buy more and better food using their income from tomato sales.
7. CABI training also contributed towards changing the trends in some parts of Skardu, and capitalizing on emerging ones in Muzaffargarh. By challenging local norms whereby training is given to male farmers only, it attempted to change opinions, by demonstrating that women need value addition in their skills as well. Household members in Skardu reported instances where they faced serious criticism by allowing their women to be trained. But once the same community saw the results, they appreciated the decision taken by the household.
8. The training also had an impact on women's influence in the household. In Punjab, the number of women able to influence household spending decisions rose significantly following the training, from less than 5% to almost 50%. In Skardu, although there was no significant change for women in terms of decision-making on household income, most women (73%) noticed a change in behaviour towards them within the household, following the training, with a majority of these mentioning that they were more respected and their advice on spending money was asked for.

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www.cabi.org

contact CABI

Africa

Kenya
CABI, Canary Bird
673 Limuru Road, Muthaiga
PO Box 633-00621
Nairobi, Kenya
T: +254 (0)20 2271000/ 20
E: africa@cabi.org

Ghana
CABI, CSIR Campus
No. 6 Agostino Neto Road
Airport Residential Area
P. O. Box CT 8630, Cantonments
Accra, Ghana
T: +233 (0)302 797 202
E: westafrica@cabi.org

Americas

Brazil
CABI, UNESP-Fazenda Experimental
Lageado, FEPAF (Escritorio da CABI)
Rua Dr. Jose Barbosa de Barros 1780
Fazenda Experimental Lageado
CEP:18.610-307
Botucatu, São Paulo, Brazil
T: +5514-38826300
E: y.colmenarez@cabi.org

Trinidad & Tobago
CABI, Gordon Street, Curepe
Trinidad and Tobago
T: +1 868 6457628
E: caribbeanLA@cabi.org

USA
CABI, 745 Atlantic Avenue
8th Floor, Boston,
MA 02111, USA
T: +1 (617) 682-9015
E: cabi-nao@cabi.org

Asia

China
CABI, Beijing Representative Office
Internal Post Box 56
Chinese Academy of Agricultural Sciences
12 Zhongguancun Nandajie
Beijing 100081, China
T: +86 (0)10 82105692
E: china@cabi.org

India
CABI, 2nd Floor, CG Block,
NASC Complex, DP Shastri Marg
Opp. Todapur Village, PUSA
New Delhi – 110012, India
T: +91 (0)11 25841906
E: cabi-india@cabi.org

Malaysia
CABI, PO Box 210,
43400 UPM Serdang
Selangor, Malaysia
T: +60 (0)3 89432921
E: cabisea@cabi.org

Pakistan
CABI, Opposite 1-A,
Data Gunj Baksh Road
Satellite Town, PO Box 8
Rawalpindi, Pakistan
T: +92 (0)51 9290132
E: sasia@cabi.org

Europe

Switzerland
CABI, Rue des Grillons 1
CH-2800 Delémont, Switzerland
T: +41 (0)32 4214870
E: europe-CH@cabi.org

UK
CABI, Nosworthy Way
Wallingford, Oxfordshire, OX10 8DE, UK
T: +44 (0)1491 832111
E: corporate@cabi.org

CABI, Bakeham Lane
Egham, Surrey, TW20 9TY, UK
T: +44 (0)1491 829080
E: microbiologicalservices@cabi.org
E: cabieurope-uk@cabi.org