Study Brief 42: Learning

Gender integration in the Plantwise programme: identifying strengths and limitations in Nepal

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Summary

In Nepal, the Plantwise programme, in collaboration with International Development Enterprises (iDE) has established networks of locally owned plant clinics, run by community business facilitators (CBFs) trained as plant doctors, who provide practical plant health advice. This study examines how gender is integrated into this programme in three purposively selected study districts. It presents the experiences of farmers, the challenges they faced in accessing plant health services through a gender and social inclusion lens. It also identifies strategies and lessons for development of gender responsive plant health programmes.

Highlights

- Farmers valued the plant health advisory services provided by Community Business Facilitator (CBF) plant doctors, which were communicated using locally understood language and approaches
- 70% of the trained CBF plant doctors were women. This resulted in the number of women farmers visiting plant clinics exceeding that of men farmers where women CBF plant doctors operate.
- As a result of the plant health training, CBF plant doctors gained additional technical expertise, which earned them trust, helped to increase their client base, and increase their income.
- Plant clinics operations appear to be systemically sustainable as CBF plant doctors are linking agro-dealers with farmers, earning commission on input sales to cover their costs in providing plant health services.
- During the 2020 COVID-19 pandemic period, plant doctors were able to provide advice to farmers by phone, using different social media platforms, indicating the potential of ICTs to reach farmers located in remote areas of Nepal, who are normally not reached by agricultural extension services.

Context

Plantwise is a global programme led by CABI that aims to help farmers reduce crop losses and increase productivity, through strengthening plant health systems, therefore improving the agricultural resilience of rural farmers. Plant clinics are a central part of the programme, where trained extension staff deliver on-demand advice to farmers at central locations e.g. market places, community centres, at regular days and times. In 2013, the Government of Nepal (GoN) and CABI entered into an agreement for the adoption and implementation of the Plantwise programme in the country. It was agreed that the Plant Quarantine and Pesticide Management Centre (PQPMC), erstwhile the Plant Protection Directorate, would be the contact point and coordinating agency in Nepal. The programme trained more than three hundred extension staff (including about 20% women staff) from different district agriculture offices on different modules of the Plantwise programme. These trained extension staff successfully set up and ran plant clinics in their respective areas. Due to the success and relevance of the programme, the GoN institutionalized different Plantwise components in its internal programme with an annual allocation of more than GBP 50,000. However, due to a shortage of staff, (the farmer to extension agent ratio is 1270:1 (Dhital, 2017)), it was decided that plant clinics need to be extended to other alternative approaches like Farmer Field Schools, an FAO initiative; and the CBF programme adopted by iDE, to reach more farmers.

In 2018, it was agreed between PQPMC, CABI and iDE that the Plantwise programme should work in collaboration with the ongoing CBF initiative in the country. The CBF initiative trains entrepreneurial farmers based in rural communities with basic IPM skills, to provide extension advice to farmers on agricultural inputs. The CBFs earn a commission from agro-dealers on input sales. Adopting a novel approach, CABI and IDE trained CBFs as plant doctors with courses covering plant health diagnosis, treatment advice and record management. The CBFs

were supported by the Plantwise Knowledge Bank, a gateway to online and offline actionable plant health information, including diagnostic resources, pest management advice and basic pest data for effective global pest surveillance. Through this collaboration, a network of locally owned plant clinics were established so that farmers in these newer areas were able to receive practical plant health advice from the trained CBF plant doctors.

The programme made efforts to integrate gender considerations in its implementation to ensure the equitable participation and benefit of women and men farmers. Priority was given to the selection and training of women CBFs as plant doctors, at the same time making sure the selection was merit based. In providing services at plant clinics, plant doctors were trained to give priority to women and the elderly. In monitoring and evaluation workshops, issues such as gender awareness of plant doctors and sensitivity to the different needs of men and women farmers were crucial components of performance assessment.

This study aimed to document gender integration strategies applied by the Plantwise programme in Nepal, focusing on identifying strengths and limitations by looking at three implementation sites/districts in western Nepal. The authors outlined recommendations that are helpful for gender integration in plant health programmes.

Since the study was carried during the COVID 19 pandemic, it also tries to highlight the relevance and need of such programmes and their ability to help resource poor farmers living in the remotest places of country to access timely scientific plant health advice.

What we did

This study took place from October 2020 to March 2021. Plantwise Online Management System (POMS) data and monthly reports were referred to, to design the study structure and target areas. Based on this, three districts *viz*., Banke, Bardiya and Surkhet were selected from the western part of the country. These districts were purposively selected considering the intensity of implementation of programme activities, especially innovative strategies aimed at improving women's participation. Efforts were also made to ensure the selected districts represented different agro-ecological zones in which the programme was implemented in the country to ensure results were representative of the whole programme.

The study mostly used qualitative tools to document how Plantwise programme activities integrated gender considerations. The data was collected through desk reviews, Key Informant Interviews (KIIs), and Focus Group Discussions (FGDs) by field technicians. Desk reviews and guidelines for KIIs and FGDs were prepared with close guidance and supervision from CABI's gender expert. The desk review included research reports and journal papers commissioned by the Plantwise programme, country annual reports and Plantwise strategies available on the Plantwise website (www.plantwise.org). Purposive and convenience sampling methods were used to select respondents for the KIIs and FGDs.

FGDs were conducted with men and women farmers who are either directly participating or are beneficiaries of the programme. Consultation with local informants was undertaken to select male and female farmers of different age, caste and ethnicity to participate in the focus group discussions. A purposive sampling method was used to ensure female heads of households made up 30% of the total participants of the focus group discussions. Altogether four FGDs per district were held with 8-10 farmers participating in each FGD.

The FGDs were used to collect data on the effectiveness of the strategies implemented to improve women's participation, the changes observed, and barriers to putting plant doctors' advice into practice.

KIIs with Nepal Plantwise programme staff, government officials, especially extension service providers, district agriculture offices and plant doctors (women, men and youth) were held virtually (online) to understand the service providers' perspective, the effectiveness of strategies applied to improve women's participation and remaining barriers. KIIs with agriculture input suppliers, other service providers and NGOs working in agriculture extension and input support were also held to understand best practices trialled by others, to improve uptake of inputs and technologies by men and women farmers.

Findings

In Nepal, in almost all regions, women are more involved in crop production and post-harvesting activities compared to men. While men typically perform tasks that require hard manual work, such as ploughing, women are more often engaged in activities such as weeding, harvesting, threshing, and milling. However, according to the responses from focus group discussion participants, in the study areas of Banke, Bardiya and Surkhet, the division of labour in the agriculture sector is currently changing. While most of the households still practice a gender-based division of labour, in some of the households the absence of men due to migration, has meant that women are taking traditionally male roles, such as ploughing. Women sometimes undertake all crop production activities from planting to harvesting and marketing. This has resulted in an increased workload for women.

CBF Plant Doctor diagnosing a plant sample brought into a plant health clinic

Lessons on improving access to plant clinics

The existence of plant clinic services is communicated to men and women farmers through advertisements, providing information on the meetings or gatherings at local level, notices at public places etc. The location, time and date of plant clinics is set based on the availability of the plant doctors, demand from the farmers groups and/or cooperatives, and with the consent of the local level farmers institutions. Community Business Facilitators trained as plant doctors (CBF plant doctors) provided both field and plant clinic consultations to farmers. They visited farmers' fields and provided both technical advice as well as plant protection services. Their services reach farmers located within their community, as well as those outside their operational areas.

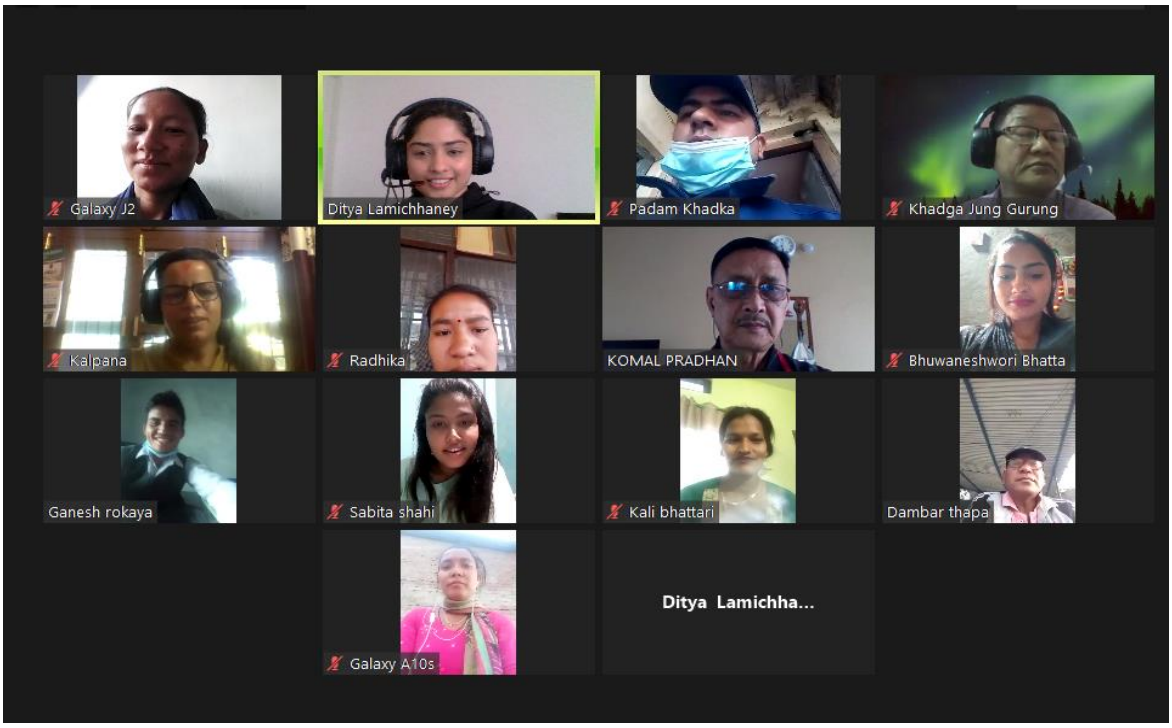
Women farmers in particular faced challenges in accessing plant clinics due to their workload, as they are responsible for unpaid care and domestic work as well as farm work. There are also some socio-cultural norms, such as restrictions preventing women from leaving the house without a male attendant or from traveling far from their home/or village and from traveling during certain hours, which limited women's mobility and interaction. The programme adopted some strategies to address these challenges. In order to improve women's access to plant clinics, the programme through CBF PDs started planning plant clinic sessions in consultation with the women farmers. Plant clinics were held during late morning or early afternoon hours which are more suited to women farmers. Efforts were also made to give priority to women farmers, especially women farmers with small children, elderly people and people with disabilities in providing services at the plant clinics.

In places where, socio-cultural norms discouraged women from consulting male plant doctors, efforts were made to ensure that women plant doctors are available either directly at the plant clinic or accessible through a phone call or individual visit to farmers. Women plant doctors constituted about 70% of the total CBF plant doctors trained under this programme, according to reports from plant doctors training workshops and POMS data. Most of these women plant doctors conducted plant clinics in their own locality. Plantwise programme staff in Nepal observed that a higher number of women farmers consult female plant doctors, compared to male plant doctors. This could be due to women feeling more comfortable with or trusting female plant doctors as a result of socio-cultural norms, or due to curiosity about female plant doctors. Women CBF plant doctors are encouraged to interact with women farmers, and those from marginalised communities, to find out why they do not attend plant clinics and agricultural trainings. These regular discussions helped, not only to identify ways to motivate women farmers to come to plant clinics, but also increased their attendance, as can be seen from POMS records. The records showed that the number of women farmers exceeded that of men farmers among plant clinic visitors, in places where there are women CBF plant doctors.

In addition to advice received from plant doctors, focus group participants mentioned that farmers also found attending plant clinic sessions provided opportunities for discussions amongst themselves and to share experiences on pest management practices. It facilitated joint planning to address pest related problems/ constraints right from the beginning of field operations and also enhanced access to agro-inputs through an expanded network of each other's linked agro-vets.

CBF plant clinics have increased accessibility of plant health advisory services to farmers through increasing the availability of advice at village level. However, more still needs to be done to continue to provide local available advice, and more agencies need to be involved to bridge the wider farmer extension agent ratio in the country.

Lessons on remote provision of plant health advisory services during the COVID 19 pandemic



CBF PDs virtual review and update meeting with iDE Nepal Central team

Respondents of the study mentioned that the pandemic restrictions imposed by the Government of Nepal in April 2020 resulted in curtailed plant clinic operations, but farmers still needed information and advice on crop production and protection. Responding to this situation, CABI and iDE used online platforms, such as Zoom, WhatsApp and Facebook to conduct almost all activities virtually. Both men and women plant doctors were trained on how to use digital platforms so that farmers could be reached with maximum efficiency. Study respondents mentioned that online training seemed difficult at the beginning, especially for women, but became easier through use. Gradually, the plant doctors developed confidence in delivering services virtually with the dedicated support of staff from iDE and CABI. CBF plant doctors provided plant health advice to farmers based on the information shared with them through ICT platforms (Facebook group, Weekly SMS) operated by iDE Nepal. CBF plant doctors were seen as valuable resources during the COVID 19 pandemic as their advice helped farmers to plan pest management measures efficiently.

While using digital platforms to provide advisory services was a positive experience, there were also challenges. For example, in cases where farmers didn't own smart phones or devices with internet connections, and in cases where farmers didn't have knowledge/ experience of using social media, planning and organizing activities remotely was difficult and time consuming. Women farmers especially, have poor internet facilities and low knowledge or use of social media. The experience showed the need for improving digital literacy among the farming community, especially women farmers.

Lessons on uptake of plant doctor advice

Farmers who attended plant clinics received advice including diagnosis/ identification of crop pests and diseases and recommendations for management of the pest, disease or nutrient deficiency in their crops. Interviewed farmers appeared satisfied with the quality of service provided by both male and female plant doctors in their village or a nearby village/ward. Farmers appreciated that CBF plant doctors used locally understood terms when providing plant health advice. There is good communication and trust between farmers and plant doctors, as the plant doctors are from the same locality and are known to farmers in the area. The CBF facilitators confirmed that with the training provided to them, they gained knowledge on pest diagnosis and confidence to identify insect and pest diseases and give back to their community in the form of plant health services [1].

There were some challenges faced by farmers in implementing the advice provided by plant doctors. For example, in some cases where input dealers are located far away from farming communities, farmers were not able to purchase inputs needed for pest management on time. Accessibility of inputs is especially a major challenge for women farmers as socio-cultural restrictions make it difficult for them to visit input dealers to buy inputs recommended by plant doctors. Women also faced financial limitations that prevented them from purchasing and using inputs. This was exacerbated by the fact that women have limited decision-making power in the household to decide on allocation of finances or purchase of agricultural inputs and technologies.

The Plantwise programme tried to address challenges in access to inputs by developing crop pest and disease management recommendations based on IPM practices, with chemical recommendations as a final option after cultural and biological practices. The POMS data indicates about 73% of the recommendations given to farmers were primarily for the use of locally available solutions (e.g., various plant-based products) and cultural practices, which can be can be managed on farm. The POMS data records showed that about 60% of the plant based and cultural recommendations were made by women plant doctors, who in some cases also provided inputs like cue lures to farmers. This has especially enabled women farmers to uptake the recommendations of plant doctors, as the inputs are easy to apply, as well as more affordable compared to chemical inputs. Women plant doctors were also more active in providing pest and disease resistant seeds to farmers.

Local ownership and sustainability

The programme has helped to build the capacity of CBF plant doctors, of whom 70% are women, in provision of plant health advisory services. They report that they have an increased capacity to act as leaders, and are able to render a wide range of services, in addition to technical advice on pest and disease management. They are able to link farmers with private sector agro-dealers, government institutions (e.g. local authorities) and non-government organizations. They are helping to bridge the gap between input suppliers and farmers. Due to the crucial services they provide to farmers, CBF plant doctors are able to increase their client base as well as increase their income, through the commission paid by input dealers.

[1] Hendery, Sara. “Nepali women improve inclusive access to inputs: insights from the field.” AgriLinks. Integrated Pest Management Innovation Lab. Feed the Future Project, 14 April 2021.

This in turn helps to make the plant clinic operations run by CBF plant doctors systematically sustainable as it is financially viable for the CBFs to run the plant clinics.

Actions to integrate gender in operational management of the project:

The project implementation team adopted the following strategies/actions to increase the involvement of women and youth in plant health activities:

CBF Plant Doctor diagnosing disease in crop during plant health refresher training

- A central committee involving representatives from government, CABI, iDE was formed to develop annual plans and monitor the activities on monthly basis. The committee supervised the integration of gender in the annual plans and discussed gender considerations in the monthly activity reviews.
- Effort was made to ensure that in all activities like trainings, meetings, plant clinics etc. priority is given to women and individuals from marginalized communities.
- The plant doctors training curriculum was designed to raise awareness about the importance of women's participation in plant clinic activities for example, by including women led case studies, gender sensitive pictures in training materials and using local role models etc.
- Working with local partners, the programme team emphasized the need to ensure equal opportunities for women farmers to benefit from the plant health advisory services. The programme's effort to reach out to women farmers has garnered support

from local women led organizations and women's farmers groups, who supported the plant doctors to set up plant clinics at community level, as they found the clinics provided women farmers with easy access to advisory services and inputs.

The way forward

Going forward, the study recommends the following actions to sustain gender sensitive plant health advisory services in Nepal.

- Training increasing numbers of female plant doctors and facilitators, equipping them with the IPM solutions at hand.
- Providing female plant doctors with some mobilization funds to empower them with digital tools.
- Collaborating with local government to conduct gender inclusive awareness programmes.
- Educating farmers' groups at various project locations on gender equality and social inclusion.
- Involvement of equal number of women in agriculture decision-making platforms.

Conclusions

This study documents gender integration in the Plantwise programme in Nepal and efforts to increase the participation and benefit of women in the programme. It presents some of the challenges women farmers faced to access plant clinic services and put into practice advice received from plant doctors, and the strategies used by the programme to address these challenges. It provides some anecdotal evidence on how those strategies helped women farmers, based on observations of programme staff and responses of focus group participants. The study also highlights the potential of ICT to provide plant health advisory services remotely and how the CBF model helps to ensure the sustainability of plant clinic services.

The assessment draws the following key conclusions:

- One of the most effective strategies to enhance women and marginalized groups' access to plant health services, is the availability of female plant doctors and facilitators who work as frontline extension personnel.
- Community level collaboration with women farmers groups and women led organizations is crucial to increase women's participation and access to plant health services.
- Organizing plant clinics and other activities at the village level, where female farmers have easy access so that they do not have to travel long distances is key to improving access.
- IPM based recommendations on plant health management that prioritize locally available solutions and cultural practices is the best fit for resource poor women farmers.

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