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# Beyond household income: the role of commercial vegetable farming in moderating socio-cultural barriers for women in rural Nepal

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## Abstract

**Background:** Promoting rural women's agricultural entrepreneurship in the Global South has become a major policy and program priority for governments and development partners. Women's income earning is viewed as a pathway to their empowerment and gender equality. The research goal was to understand how patriarchal socio-cultural norms and practices influence women's participation in commercial vegetable farming (CVF) in the mid-hills of *Sudurpashchim Pradesh*, Nepal, and identify the specific and evolving strategies that women use to negotiate these changes.

**Methodology:** Data for the study were generated through in-depth interviews with 16 smallholder couples, eight each in *Dadeldhura* and *Achham* districts. Additionally, 17 key informants who were government agency and development organization agriculture support officials at the district and national level were interviewed. Besides in-depth interviews, focus group discussions (FGDs) with women's groups, women leaders, development actors, and government officials at district, regional, and national level were also conducted. Interview data analysis using NVivo was complemented with field notes, observations and government agency and development organization reports.

**Results:** CVF possibilities initially motivated a few women to discuss with their husbands, organize self-help groups, and seek development program subsidies. With strong support from husbands and parents-in-law, they actively engage in CVF, generate income, form cooperatives for savings and credit, and improve household food security and their own economic status. CVF-associated groups, cooperatives, meetings, exposure visits, skill development training, knowledge sharing, counseling, and advocacy are vital tools. Through them, women build self-confidence, contest and transform entrenched socio-cultural barriers, and negotiate new socio-cultural norms and practices within and outside the household. Dissolving gender stereotypes regarding the division of labor in CVF plays a significant role in encouraging more women to join CVF and increases gender parity. However, a diminishing minority of women still struggle to overcome the legacy of prior negative experiences and subconsciously fear community backlash, especially regarding extended travel outside their village.

**Conclusion:** Socio-cultural practices restricting women's income-generating roles can be transformed through investment in women's group initiatives, enhancing husbands' and wives' communication and livelihood planning, and community members increased appreciation for women's role in contributing household income and food security.

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**Keywords:** Commercial vegetable farming, Women, Socio-cultural barriers, New norms, Gender equality, Nepal

## Introduction

Women's access to market-based crops and livestock can enhance gender parity at household and community levels in developing countries [29, 35]. Prescribed and proscribed socio-cultural norms and practices significantly determine whether women can engage in entrepreneurial activities [29, 31]. Women are typically expected to focus their work on staple crop subsistence farming, child rearing, cooking, and caring for family elders—and generally are not seen as income earners [6]. Defined positions, roles, and responsibilities in families, communities, and workplaces often limit their full involvement in cash crop production and market access [11, 35]. In some cases, economically empowered women are perceived as threats to males' decision-making supremacy and position as sole family breadwinners [6, 30]. Further, women's entrepreneurial activities are sometimes viewed in terms of males' submission to their wives and lack of control over household activities [19].

Women's mobility in much of the Global South is often confined to household boundaries and their travel to public places is restricted [18]. Many women still seek approval from their husbands and family members to travel, even for agriculture entrepreneurship [4, 23] that largely benefits family wellbeing. In South Asia, traditionally, women working outside the home, traveling unaccompanied by a male family member, or even conversing with unfamiliar adult males are viewed as degrading family reputation and honor [26, 30]. Recent research in 32 villages in South Asia found that women continue to face challenges entering markets unless they are accompanied by male relatives [28]. Women are often discouraged or barred from having business dealings with males outside their households to avoid jeopardizing their marriages [19]. In the Hindu caste system, men outside the family are considered as a source of 'pollution' for women [17].

Socio-cultural structures also limit women's access to the full range of productive agricultural assets needed for CVF [16]. Religious beliefs and patriarchal attitudes shape gender stereotypes which often restrict women's resource access and participation in a market-based economy [34]. Patriarchal dominance and related cultural practices that lead to women's subordination are the very manifestations of religiosity [1]. In a patriarchal society, social belief systems and socialization encourage men to assume superiority and women to accept subordinate roles. Some even argue that patriarchy is the main cause of numerous forms of gender-based discrimination affecting women and issues of gender equality, especially

in South Asia [3, 26]. The system is deeply embedded in all formal and informal institutions, men's and women's mindsets, ideological discourses, and policymaking that profoundly impact women's everyday lives [3]. In this unfavorable socio-cultural environment, women in South Asia obtain and exercise power through struggles and negotiations. Therefore, their achievements are not automatic artifacts of economic growth and development [26]:460).

During recent decades, government agencies and development organizations in Nepal have worked to enhance rural women's income-generating activities, typically through women's group formation and collective initiatives [2, 33, 36]. Most importantly, systematic changes in laws and policies at the national level designed to advance gender equality across the socio-economic and political spectrum provide a conducive environment for women to challenge restrictive socio-cultural practices, seek program support, and enthusiastically develop CVF.<sup>1</sup> For example, the newly promulgated Constitution of the Federal Republic of Nepal in 2015 prohibits most forms of gender-based discrimination and recognizes women's social, economic, and political rights [22]. Further, Nepal's Agriculture Development Strategy 2015–2035 strongly advocates and promotes policies and programs to enhance women's roles in various aspects of market-based agriculture system [24]. Despite numerous 'affirmative actions,' cultural rigidity and entrenched gender roles persist.

These conditions seem to characterize the rural mid-hill communities of *Sudurpashchim Pradesh* which are the focus of this research. The deeply rooted patriarchal system of customary laws and practices, along with degrading clichés, limits individual and institutional initiatives for women's involvement in the market economy in the region. Nevertheless, a few women are increasingly involved in CVF and achieving noteworthy success. Given the generally unfavorable socio-cultural context, these highly motivated and enthusiastic women can be viewed as exhibiting 'positive deviance' in embracing and advancing CVF activities at the household and community levels. Their endeavors require travel outside their villages and interactions with various male traders and agriculture service providers. The complex, evolving

<sup>1</sup> It refers to smallholder households producing and earning income through selling vegetables. They sell to itinerant buyers or in markets in nearby towns. The annual income from selling vegetables is between (Nepali Rupee) Rs. 35,000–700,000 (US \$1 is approximately Rs. 119) [2].

situation motivated this qualitative research which was designed to address four key questions: (1) What have women initiated, individually and collectively, to pursue CVF? (2) How are these activities strengthening women's self-confidence and changing the gender division of labor in the household? (3) What are the conditions and dynamics that stimulate women producers, their husbands, and members of their extended family and community to accept attitudes and behavior favoring women's engagement in CVF? (4) How are family and community members normalizing women's new roles as income earners?

### Literature review

Women's economic gains alone are insufficient to overcome entrenched and persistent socio-cultural belief systems [14, 25]. Therefore, interventions intended to provide economic opportunities and empower women should be well informed about existing cultural and religious practices, and informal norms and institutions ([25]:415). Systemic changes at individual and societal level to create a new belief system that women can achieve their own economic goals are very important [25]. Additionally, women's full and independent access to assets and resources is vital for their active involvement in a market-based economy [14]. Skill development programs are vital to encourage individual women to actively participate in cash-based agricultural activities [4, 28].

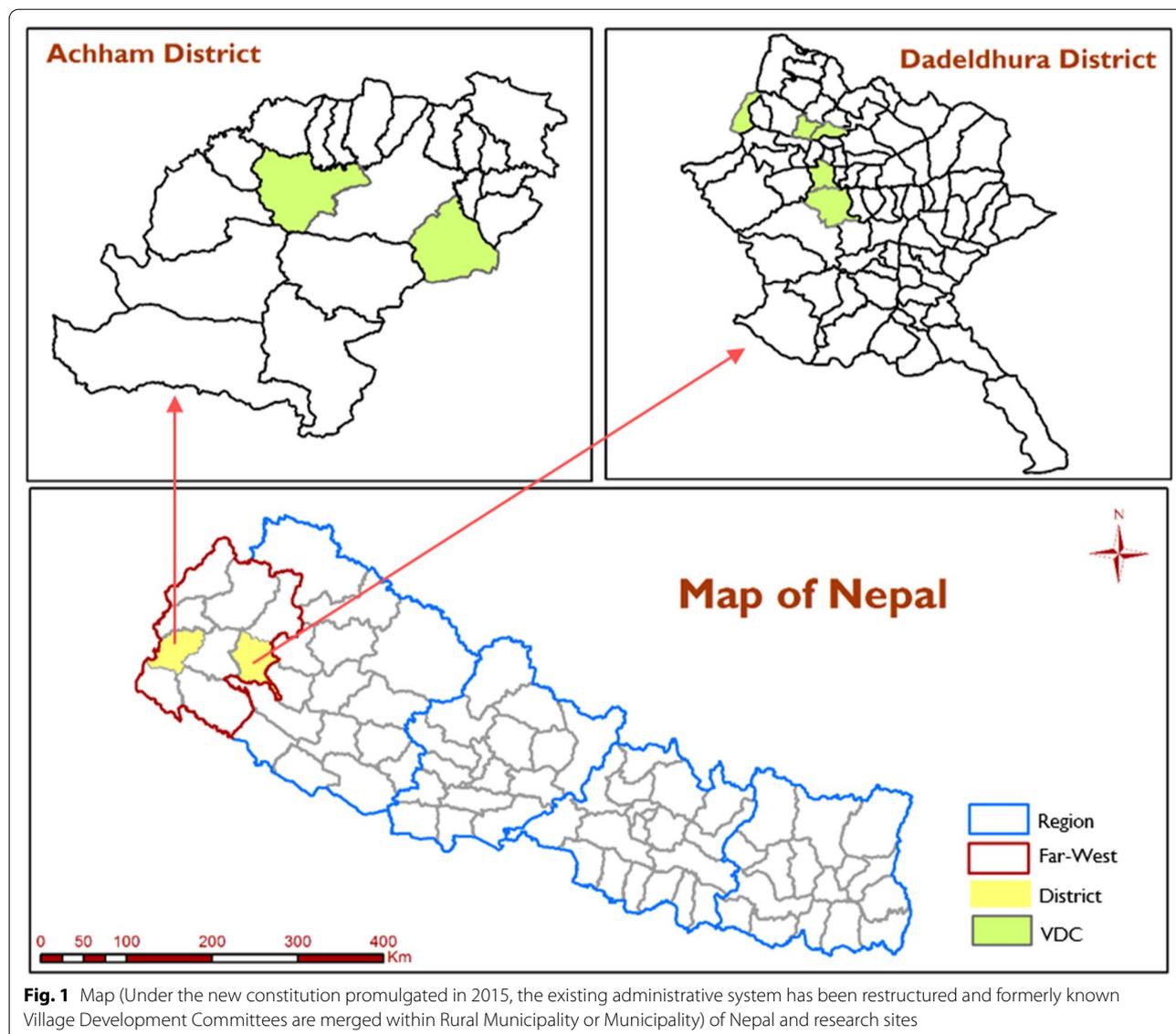
Women's group-based and peer learning strategies [20], particularly in women-led organizations, contribute to networking, support systems for women farmers, and market access [10]. Women-led cooperatives offer opportunities for sharing personal reflections, enhancing skill-based knowledge, and providing moral support to each other [14]. Further, formation of women's entrepreneurship clubs spanning multiple communities enables women to learn about context-based socio-cultural challenges and devise solutions [19]. Additionally, organized diffusion of ideas to transform long-held social norms is achieved by training lead women participants and facilitating their engagement with other community members [8]. Through collective initiatives and awareness campaigns, a core group of activists can reach ordinary people and launch widespread campaigns against restrictive social norms and the status quo which will eventually lead to a new vision for social transformation ([8]: 944).

Despite many positive efforts and outcomes, critics note that initiatives focused on eliminating discriminatory socio-cultural practices against women rarely include men [12, 16]. Considering women's social relations with extended family and community members

and measures that build women's self-confidence are crucial [5]. Men and women working together in the household promotes business activities and family wellbeing but also helps eliminate negative attitudes toward women's entrepreneurship [2, 19]. Policies that exclusively promote women sometimes fail to achieve their intended goals, adversely affecting their wellbeing and increasing domestic violence [13]. To succeed, programs should elicit full support from husbands and other adult male household members [9], essential elements for overcoming deeply entrenched social norms [8]. Designing and implementing programs that help men appreciate the importance of women's involvement in groups and training activities is crucial to changing attitudes toward women's operative freedom [9].

Socio-cultural forces limiting women's agricultural entrepreneurship in the Global South are well researched. Based on those findings, government agencies and development organizations have established policies and programs intended to change gender stereotypes and support women's individual and group-based income-generating activities. However, understanding the social relationships in which they are embedded and how these influence women's initial and continued CVF activities remain quite limited and in need of further research. This is underscored by social and cultural diversity within any specific country, let alone across regions. Using qualitative research techniques, we sought to hear the voices of women who are often silenced, othered, and marginalized by the dominant social order ([21]:11).

Qualitative research can facilitate deep understanding of cultures, belief systems, and behavioral norms that directly or indirectly influence people's everyday lives and how such phenomena impede or foster social change [32]. We believe that the purpose of research should be less to strive for some degree of generalizability and more to understand the nature of individuals' and communities' problems and their innovative solution strategies [32]. Insights gained through this study will reflect challenges and opportunities for advancing women's roles in CVF viewed in the context of the cultural setting. These findings may lead to further research, and changes in existing policies and programs that more effectively address the nature of socio-cultural factors impacting women's endeavors in CVF. Concerning broader implications, it is widely recognized that supporting women farmers not only benefits household wellbeing and women's empowerment but also is an important step for creating a just society. These are fundamental changes needed to meet United Nations Sustainable Development Goals by 2030.



## Methodology

### Research sites and context

This study was conducted in *Dadeldhura* and *Achham* Districts (see Fig. 1). These two mid-hill districts share similar culture, ethnicity, dialects, landscape, and other socio-economic characteristics. The population of *Dadeldhura* is approximately 142,000 (53.2 percent females), with an average household size of 5.25, and the population in *Achham* is 257,000 (53.4 percent female), with an average household size of 5.33 [7]. In *Dadeldhura*, 53 percent of women are literate compared to only 43 percent in *Achham*. The literacy rate among men is above 70 percent in both districts. Middle and high school dropout rates in both districts are significantly higher among girls than boys. Culturally,

girls assume more household responsibilities at an early age, supporting their mothers in many domestic chores. However, during the past 10–15 years, more girls are pursuing undergraduate college degrees (education, arts, and business), primarily in towns and district headquarters close to their homes.

CVF in *Dadeldhura and Achham* districts is still an evolving concept and not yet widely accepted. In general, most families still believe that producing fewer staple crops and buying them tarnishes their perceived status as well-off farmers. They produce vegetables for own consumption. Some are still uncomfortable marketing surplus, preferring to share with relatives and neighbors. Cultural practices discourage women's active roles in agricultural entrepreneurship. Women

do not have primary decision-making rights regarding land use. Husbands and parents-in-law rarely favor women's travel. Rather, women are encouraged to concentrate on domestic chores and traditional staple crop activities that do not require women's travel to markets or interaction with strangers. Women's household and community roles are often reinforced through pervasive and derogatory cultural clichés. Commonly heard clichés in the study area are as follows: *aaimaile bollu hunaina* [women should not speak], *pothi basyoki big-dyo* [if a hen crows, it is inauspicious; it is a rooster's business to crow], *aaimaiko dimag hunaian* [women do not have wisdom], *aamaiko bharosa hunaina* [you cannot trust women], *yo kam aaimaika hatbatahai hunyahoina* [this work will not be done by a woman], *pharngelli* [one who travels outside of the village, often ignoring customary rules, termed a 'harlot'], and *neta*<sup>2</sup> [leader]. Although less frequent than previously, some comments still constrain women's entrepreneurial endeavors, especially those who live far from the road networks. Women who dare to challenge socio-cultural norms are often criticized, including their husbands and family members. Husbands and parents-in-law are expected to scrutinize women's daily actions, behaviors, and activities; failing to meet these expectations might trigger backlash from community peers and elders.

Government agencies and development organizations are increasingly aware of socio-cultural and economic constraints on women farmers and their low participation in CVF. Most policies and programs in the region concentrate on addressing household food insecurity and malnutrition among children and women. Prominent examples are the Knowledge-based Integrated Sustainable Agriculture and Nutrition Project (KISAN) and the Agriculture and Food Security Project (AFSP) implemented jointly by the Government of Nepal, the United States Agency for International Development (USAID), and the World Bank. Integrated within these major programs, women are offered skill development training, startup grants and other subsidies to initiate CVF activities. Programs designed to reduce household gender-based violence provide counseling about socio-cultural issues to women, their husbands, and family members.

Despite challenging conditions, some women enthusiastically engage in CVF and influence others to join. Spangler and Christie [33], in their study conducted in neighboring mid-hill districts of *Karnali Pradesh*, suggest that recent loan programs and support for farmers

cooperatives open new avenues for women to learn and farm commercially. Subsequently, these women influence others to join. People in neighboring hill and mountain districts of the mid- and far-western regions face similar socio-cultural belief systems, though such restrictions vary among communities and can differ starkly among caste and ethnic groups. For example, *Chhetri* and *Brahmin* communities more commonly restrict women's travel to markets and interactions with outsiders, especially with males. Traditionally, *Brahmins* were culturally hesitant to fully participate in farming activities, with male *Brahmins* refraining from plowing land. However, *Brahmins* are becoming more involved in farming. Although less prevalent, the hierarchical caste system that puts *Brahmins* and *Chhetris* on the top, respectively, is still practiced in the region.

#### Methods and study population characteristics

Data were collected in June and July 2017. In-depth interviews were conducted with 16 smallholder couples (eight each in *Dadeldhura* and *Achham*) who are *Brahmins* and *Chhetris* in *Dadeldhura* and only *Chhetris* in *Achham*. We did not find any *Brahmin* couples actively involved in CVF for at least 3 years in *Achham*. Participant women and their family members were hesitant to talk with a male respondent; hence, all interviews with women were conducted by a female research assistant who was well acquainted with the region's geography, culture, and language/dialects. Interviews were conducted in the local dialect, *Doteli*, and Nepali. Additionally, 17 key informants (eight in *Dadeldhura*, five in *Achham*, and four in *Kathmandu* valley) who were government agency and development organization agriculture support officials at the district and national level were interviewed by the principal researcher. A total of six FGDs with women's groups were conducted (three each in *Dadeldhura* and *Achham*). Additionally, three FGDs with women leaders, development actors, and government officials were also conducted (one each at district, regional, and national level). Smallholder women expressed no hesitation to sit in groups with male researchers, so the FGDs were moderated by female and male researchers. With participants' permission, all interviews were recorded. Interviews with smallholder couples were fully translated and transcribed in English, while other key informant interviews and FGDs were partially transcribed. Throughout the data collection, researchers had informal interactions with key community members (female and male), various local government officials, and development organization representatives and prepared extensive field notes. In addition to formal interviews, analysis was drawn from field notes and observations. We also used government agency and development organization reports. Because

<sup>2</sup> *Neta* literally means a leader; in this context, it connotes a woman who challenges social norms and participates in important meetings with male members and expresses her views freely. This is considered a derogatory term.

**Table 1** Participants' demographic and social characteristics

<i>Achham District</i>					<i>Dadeldhura District</i>				
S.N.	Age (years)	Education level	Caste	Family type	S.N.	Age (years)	Education level	Caste	Family type
W1A	30	Intermediate degree	Chhetri	Nuclear (Nuclear family refers to husband, wife, and children.)	W1D	27	H.S. Dropout	Brahmin	Joint
W2A	50	Illiterate	Chhetri	Joint (Joint family refers to husband's parents, husband, wife, and children. It may also include married or unmarried siblings (husband's brothers and sisters) sharing household resources.)	W2D	22	High school	Chhetri	Nuclear
W3A	43	Illiterate	Chhetri	Nuclear	W3D	65	Illiterate	Chhetri	Joint
W4A	45	Illiterate	Chhetri	Nuclear	W4D	35	Primary school	Chhetri	Nuclear
W5A	40	Primary school	Chhetri	Nuclear	W5D	45	Illiterate	Chhetri	Nuclear
W6A	33	Intermediate degree	Chhetri	Joint	W6D	30	Illiterate	Chhetri	Nuclear
W7A	47	Illiterate	Chhetri	Nuclear	W7D	66	Illiterate	Chhetri	Joint
W8A	29	High school	Chhetri	Joint	W8D	27	Primary school	Brahmin	Joint

of the small number of households involved in CVF, participants were purposely selected. All farmer participants interviewed were couples involved in CVF for at least 3 years. Professionals who facilitate CVF at district and national levels were identified and asked to be interviewed. FGD participants were identified with the assistance of farmer interviewees and key informants.

## Results

Smallholders interviewed have 0.5 to <1 hectare of land, with most devoting about one-fourth of it to their CVF joint initiatives involving both husband and wife, and sometimes in-laws. Two women in *Achham* initiated CVF themselves after discussions with their husbands who were working in India. Within the village, they do not sell vegetables to their neighbors; rather, they share or exchange for labor services. Only one family devoted all its land to CVF. Households are hesitant to initially commit to CVF most land traditionally devoted to staple crops and because any problem with CVF risks household food security. No farmer indicated having crop insurance for CVF, and there are no cold storage facilities to keep vegetables fresh. Successful CVF increases income and influences parents-in-law to commit more fertile land.

A majority of young and educated couples prefer to live as nuclear family households, with joint family structures in decline. Women are more comfortable today discussing CVF-related issues with their husbands, especially when the household includes parents-in-law. In a joint family, in some cases, parents-in-law resist allocating the most fertile land with access to irrigation for CVF activities. Some parents-in-laws are more skeptical than husbands regarding women's travel, and they often

expect their daughters-in-law to return home before dark (Tables 1, 2).

Most women who have at least some high school education are more comfortable talking to their husbands and parents-in-law, openly sharing their travel plans, actively seeking government and donor support, forming women's groups, and initiating saving and credit cooperatives in their communities. They also possess better knowledge about vegetable production, bargaining practices, and selling. These women are also highly effective in sharing skills they learned with other women in the community, motivating them to pursue or continue CVF activities and convincing their families about travel. Women over age 40 who are illiterate or have only primary education often preferred not to travel to markets to sell vegetables or take part in the training. Except W2A (50 years old), they are less active in women's group-related activities.

## Expected roles and division of work

Men's and women's roles and responsibilities in rural households and communities are clearly defined in Nepal, as in many other developing countries [29]. What women can/should do and not do are guided by pervasive socio-cultural norms and beliefs. ACDOA shared, "Work division between male and female is traditionally defined and culturally sanctioned. So, any work defined for women is strictly for women, and men's work is for men." He added, "As a result, besides heavy contributions in many farm activities, women are expected to perform almost all the domestic chores."

Socio-cultural behavioral norms are so pervasive that most women feel uncomfortable when their husbands support them in any of 'their' work. They face criticism

**Table 2** Conditions and dynamics of women's involvement in CVF activities

<b>Factors contributing to women's roles in CVF</b>	<b>Women's individual and collective efforts to further CVF</b>	<b>Role of CVF in women's confidence building and reducing barriers</b>	<b>Factors stimulating acceptance of women's CVF roles</b>	<b>Processes of normalizing women's new CVF roles</b>
<ol style="list-style-type: none"> <li>1. Decreasing staple crop yields and economic hardship</li> <li>2. Expanding road networks and emerging markets</li> <li>3. Support from government and development organizations</li> <li>4. Seeing others earn income through CVF</li> <li>5. Exposure visits to other districts and peer learning</li> </ol>	<ol style="list-style-type: none"> <li>1. Actively produce and sell vegetables</li> <li>2. Request technical and financial support from government and development organizations</li> <li>3. Seek consent from husbands and in-laws to travel for skill development training and exposure visits</li> <li>4. Form women's groups and saving and credit cooperatives to strengthen collective voices and income-generating endeavors</li> </ol>	<ol style="list-style-type: none"> <li>1. Outside travel and meeting government and development officials</li> <li>2. Peer learning through training and visits outside the districts</li> <li>3. Seeing more women actively and freely engaged in CVF in other areas</li> <li>4. Share experiences with other women in the community, create strategies to combat backlash</li> </ol>	<ol style="list-style-type: none"> <li>1. Women generating more income for the household</li> <li>2. Women helping other women, success in travel, winning confidence of family members</li> <li>3. Women gaining knowledge for growing vegetables and bargaining for better market prices</li> <li>4. Women obtaining external support for themselves and the overall community</li> </ol>	<ol style="list-style-type: none"> <li>1. Women viewed as role models in their communities</li> <li>2. Peer learning inspires more women to join CVF</li> <li>3. Women earning income inspires more women and becomes the new norm</li> <li>4. More community members are open to let their wives or daughters-in-law to be involved in CVF</li> </ol>

**Table 3** Roles performed in traditional staple crop production

S.N.	Women only	Men only	Women and men
1. Production	Seed saving, tilling, planting paddy seedlings, preparing compost fertilizer (mostly animal waste), carrying fertilizer to fields, spreading fertilizer in fields, weeding	Repairing old irrigation canals, building new canals, preparing agricultural tools, plowing, leveling fields, sowing, irrigating, using chemical fertilizers	Ritual prayers and worship in the farm, land selection, digging fields, coordination for exchange labor, germinating paddy seeds, pulling paddy seedlings, observing crop situation (insects and diseases), protecting crops from wild and domestic animals
2. Harvesting	Cutting paddy crops and leaving them in the field for drying, cutting wheat, barley, finger millet, etc., carrying crop spikes home, carrying fresh finger millet straw for fodder	Storing straw hay, mostly paddy and wheat, in the field for fodder	Assessing readiness, coordinating exchange labor, collecting dried paddy at the field, storing it for a few days and harvesting, carrying grains home
3. Utilization	Removing husks, grinding grains for flour	Preparing wooden boxes to store grain	Purchasing bamboo baskets, storing grains safely, cooking (mostly women)
4. Surplus	Selling among neighbors and within the village	Selling in local towns (very rare occasion)	Sharing with relatives and friends (free of cost)

from parents-in-law, community members, and sometimes even from peers for allowing husbands to perform jobs delineated for them. Some women expressed that they do not want their husbands to be perceived as weak in the eyes of extended family and community members. This is a matter of prestige and many women do not want their image to be portrayed as bossy by asking husbands to perform work culturally prescribed for them. W5D described her experience: “I never ask my husband’s help with fodder collection and carrying fertilizer. Men should not do this work. I tell him not to do it. I perform these activities and most women in our community do the same.” W6D also expressed, “Men should not do women’s work, for example, cleaning animal dung, carrying fertilizer, etc. My husband sometimes goes for fodder collection, but this is women’s work and I do not feel good when he does these activities.” Highlighting the belief system, a participant in FGDA3 said, “If men carry drinking water from taps, wells or rivers, people still say ‘are there no women in his family?’ This kind of attitude is still there in our community.” Subconsciously, women feel guilty for allowing their husbands to perform such work.

We observed that many in the community still strongly believe that men performing activities defined as women’s is shameful. If husbands are spotted carrying fertilizer or working hand-in-hand with their wives in domestic work, they are labeled as *joitngres*.<sup>3</sup> A participant in KIFGDK added, “If a man starts supporting his wife in her every endeavor, society labels him a *joitngre*.” They are labeled as *swasniko chhoro* [wife’s puppet], *swasniko kamai khane* [one who lives on his wife’s income],

and *namard* [lacking manhood]. These statements are often made behind one’s back, but some may communicate them directly and often sarcastically. None of the participants, however, suggested that they hear such labels directly but are aware of longstanding practices and rumors in the community. Some husbands find such criticisms discouraging and disturbing, while others pay little attention. Husbands who are more educated and have exposure outside of their communities seem to be less concerned about cultural taboos.

Analyzing the responsibilities performed by women and men in Tables 3 and 4, CVF activities are more egalitarian. Gender-specific roles are more prevalent in traditional staple crop production activities, while CVF offers more opportunities for women and men to work together and share responsibilities. In CVF, men and women face less criticism when men use women’s tools and perform activities prescribed for women. This indicates that women’s full participation in CVF is now being cautiously accepted.

Couples involved in CVF often work together and are more likely to break away from social norms. For example, W2A expressed, “My husband and I do most of the work together in producing and selling vegetables. My husband can do anything for me. He carries fertilizer in bags but not in a *doko*<sup>4</sup> (basket) though.” When asked why he does not carry in *doko*, she replied, “Men do not carry *doko*.” We did not observe men carrying fertilizer or women plowing land. However, some women in neighboring districts now plow land themselves and hire farm labor, and actively manage income-earning agricultural activities [33]. Participants did not

<sup>3</sup> *Joitngre* refers to a husband who has no authority over his wife and submissively follows his wife’s instructions, including work that is culturally prescribed for women. The term is used throughout Nepal.

<sup>4</sup> *Doko* is a basket made from the bamboo tree. This is perceived as a woman’s tool to collect fodder, carry fertilizer, and other goods.

**Table 4** Roles performed in CVF

S.N.	Women only	Men only	Women and men
1. Production	Preparing compost fertilizer, carrying fertilizer in a <i>doko</i> to the field	Plowing, carrying compost fertilizer in sacks	Buying and saving seeds, digging, and tilling, leveling fields, spreading fertilizer, buying, and using chemical fertilizer and pesticides, sowing, planting seedlings, irrigating, monitoring (plant growth, insects, and diseases)
2. Harvesting		Only during women's menstruation period ( <i>Chhaupadi</i> practice), especially if the vegetables are from the Cucurbita family	Assessing readiness, harvesting, hiring laborers (if necessary), selling from home, or traveling to markets
3. Utilization			Keeping income, self and household expenditures, savings, investment in family's wellbeing
4. Surplus			Sharing among relatives, neighbors, and friends

provide specific reasons why CVF activities are considered more egalitarian than traditional staple crop work. There are multiple likely explanations for the difference: (1) CVF is an emerging concept for which there are no established norms regarding the division of labor; (2) families involved in CVF have exposure visits to other districts where they observe men and women contributing equally; (3) road networks and market opportunities are rapidly expanding; (4) men and women involved in CVF tend to be more educated; and (5) there is evidence of increased household income for families involved in CVF.

#### Changing attitudes toward women's involvement in CVF

Just 15–20 years ago, women's involvement in CVF was taboo and considered a social disgrace, not only for their families but also for their neighbors and communities, especially in *Achham* district. It was, and for many still is, extremely difficult for women to travel to markets without an accompanying male family member. For many, reaching the closest market involved head loading produce for a 3–5 h walk. FGDD1 participant shared, "Initially, it was very difficult for women to go to markets. Husbands would not let their wives travel to markets and sell vegetable products. They would say, 'You are insulting me by selling vegetables in the markets.'" Another added, "Husbands would say, 'I will rather go to India than allow you to go to markets to sell tomatoes.'" In a similar notion, participants in FGDD3 said, "In the beginning, we used to face many derogatory words just because we were engaged in income-generating programs such as selling vegetables and attending training. They would label us as *neta*." A participant in FGDA2 described her first experience selling vegetables in this manner: "Since I did not have children, I needed to go to the market to sell vegetables. It was a very uncomfortable situation for me, as I did not see other women selling vegetables in the markets."

Families of women involved in CVF are now increasingly open and accept women's evolving roles. For example, W1A explained, "My father-in-law is very supportive of me, although he always wishes to grow more staple crops. My close neighbors also support me. They always encourage me to take leadership roles in supporting other women in the community." She added, "However since I have an intermediate college degree, they think I should be involving in different activities (professional jobs)." Since agriculture is still perceived as an uneducated person's profession, some families expect educated people (men and women) to have well-paying regular jobs; at the same time, interestingly, they prefer that women work closer to home.

In general, for women to participate in training activities outside their village remains taboo. Women are expected to return home before dark even if they collect firewood, fodder, or drinking water; this applies to most women who are involved in CVF or are well educated who may have a small degree of flexibility. Some community members remain critical of women's outside travel when not accompanied by a male family member. That noted, most women involved in CVF these days receive strong support from their family members and enjoy more freedom of action. However, in a joint family, parents-in-law expect to see more income generated through CVF. Failing to earn and share more can create backlash and may include reduced use of fertile land for CVF. For example, W2A said, "Since I failed to sell vegetables, my father-in-law is angry with me. He keeps telling me you should have grown staple crops. But when I get better income from vegetables, he and my mother-in-law are happy." Elders still prefer to use fertile land to grow traditional staple crops, such as rice, wheat, and lentils. For them, eating staple crops produced on one's own farm is an indicator of social prestige. Buying these in markets is perceived as reflecting one's status as a poor farmer.

Staple crops are viewed as guaranteeing household food security at least for 5–6 months annually for most families. With no formal employment opportunities, the livelihoods of over 90 percent of people in these districts depend on traditional staple crop activities. Hence, without assuring productivity and markets, using fertile land for CVF can risk a household's food security. There is no provision for crop insurance for CVF failure.

Reliable road networks and availability of staple crops in local markets provide choices for people, so that buying them is becoming more normal. With increased household income through CVF, households can have greater dietary diversity. As women play a vital role in earning income and improving household wellbeing, more people in the community are willing to endorse their increased roles in CVF. Expressing recent changes in people's attitudes, W4A said, "My neighbors and relatives appreciate me. They say because of you we also learned to do vegetable farming." W6A shared, "Not only my family but also community people and even people in the district greatly appreciate my work." W1D, W4D, and W8D confirmed that there are very few negative characterizations of women engaged in CVF these days in their communities; instead, their endeavors are appreciated. Many believe that women's travel to markets and venues for workshops, training, and exposure visits outside of their villages for CVF is becoming an accepted norm, and women who initially faced some resistance from the community are now viewed as role models especially by younger women. Contesting established socio-cultural norms restricting women's involvement in CVF and creating new norms connotes 'positive deviance.'

Not everyone's experiences have been positive. H6A said that many women in his community continue to face challenges, especially traveling to markets. He added, "Women still face many types of problems. We still have people who say women should not go out of the home." H8A also said, "Our society is very conservative, and I know many people do not like women to be fully immersed in the markets." When asked whether people talk negatively about her engagement in vegetable farming, W6A replied, "They do not say anything in front of me, but I feel they may behind my back." She suggests that being faithful to one's husband, family, and focusing on CVF is helpful in a society where women's character is often questioned when they travel. W8A shared, "I constantly feel like I am making mistakes. Although my husband does not question my late returning home, I feel that the community is always watchful of my activities outside the home." She added, "I know I do the right things. I also know my in-laws greatly support me. Yet, I do not know why I am in constant fear all the time." She continued, "It may be because as a child I have seen my

mother and aunties questioned and punished even when they returned home a little late from day-to-day household chores." In a society where even employed and educated women are afraid to travel with non-relative males for official businesses, the fear expressed by W8A is understandable. For example, NGO1D said, "Our office hired two women social mobilizers and two male agriculture technicians. The idea was that we go monitoring our field activities as mixed gender pairs. But we all agreed to form teams of women and men separately." She added, "Traveling with a man in the village is still not an acceptable norm. It gives room for the community to chat and backbite." Fear remains embedded in the minds of many women.

Interestingly, no study participant reported experiencing direct criticism for returning home late after travel. W6A and W8A are among the leaders forming women's groups and helping other women in their communities. Their experience with entrenched fear indicates that cultural norms have persistent subconscious impacts on women. It is noteworthy that despite evidence of increased household income, women's involvement in CVF is often still considered to be 'deviant' behavior which community members hesitate to fully endorse. Although some women initiated commercial agricultural activities in the early 1990s in *Dadeldhura* and around 2000 in *Achham*, their numbers remain very low.

#### **Women's responses to change**

Most women feel that they are much more respected today than 10–15 years ago. Women are not only involved in CVF but also important community affairs. An elderly participant in FGDA3 shared her experience: "We [referring to other women in her community] are old people. Things have changed a lot today. It looks like heaven for women. I recently went to *Dhangadhi* [a major city in the region]. Those days women were restricted to household chores only. No freedom to travel." She continued, "Today, even I can go to the meetings. I do not need to ask my husband or any other family members." Echoing FGDA3's comments, a participant in FGDA1 said, "Even if we stay for a month away from home no one criticizes. I think we speak more than men in the household these days." She added, "In the past, if we wanted to attend training and exposure visits, we had to beg our husbands. They would refuse. Even if they agreed, they would tell us to take our boys with us. But today we just inform." With a great sigh of relief and seemingly joyful, she added "Sometimes, I think and compare the situation that we used to have in the past and today, and I feel like the whole era has elapsed. It is entirely a new world." Participants in FGDD3 also communicated that seeing the great changes in women's decision-making roles in CVF, saving

and credits, important household as well as community matters, and overall increased status in society, men sarcastically say that “this is women’s kingdom.” Women’s personal experiences with change are encouraging. Emotional support from family members, government agencies, and development organizations is crucial for women to continue CVF activities. For example, women involved in CVF receive agricultural extension services and training, priority in exposure visits, and heavily subsidized agricultural equipment, seeds, and soft loans.

### Agents and processes of change

Empowering women through various income-generating activities and program subsidies has been a priority for government agencies and development organizations. However, since the region faces serious food insecurity, most programs that support women’s income-generating activities are integrated within the major programs to either reduce food insecurity or alleviate extreme poverty. Recent changes in the political system (democratic government), progressive and rights-based policies and programs for gender sensitivity and inclusion create a conducive environment to participate in the market-based economy. Travels and exposure visits, media, and investment in education, especially for girls, have positive impacts on attitudes regarding women seeking roles in CVF. These programs have contributed to increased awareness among ordinary rural women. Consequently, more women today tend to question and contest socio-culturally based discrimination against them. INGOD commented, “I think positive reservation [of opportunities] for women has made a great impact in terms of increasing women’s participation in various development activities. If they face opposition from husbands, family and community members to their travels related to income-generating activities, they tend to challenge such behaviors and attitudes.” As more women join, understand their rights, and take major household responsibilities, they put more pressure on husbands, extended family members, and communities to accept them as equal contributors not only in CVF activities but also in many important decision-making processes.

There is clear evidence that promotive policies and programs, such as subsidies for women, training women as lead farmers, women farmers groups, creation of women only cooperatives, etc., have played an important role in women’s increased interest in growing and selling farm produce. For example, W2A and W6A received plastic tunnels and startup money from the District Agriculture Office. In both districts, women initiating CVF received subsidies up to 70% price to buy seeds and farm equipment and soft loans from local banks. However, households that are willing to risk their status and prestige in

the community by disregarding social norms are overwhelmingly those with more educated women who receive significant support from their husbands. CVF initiatives are joint decisions and activities involving various family members. Husbands convince their parents, encourage their wives to join development programs, and defend their families from possible community backlash. For example, when asked whether people in the community had sarcastically labeled his wife a *neta*, for her active role in various development-led programs, including CVF, H2A responded, “People used to say that in the beginning because they lacked awareness. Some people may still say such a word, but I do not care.” He added, “Nearly 15 years ago, a government-led program failed to find a woman health volunteer in our community. People did not want their wives to engage in social work. They did not want their wives to travel out of the village.” He continued, “When they did not find anyone, I encouraged my wife to take the role. Now she not only engages in vegetable farming but also is active in development programs and travels a lot. She is encouraging other women in our community, and I am proud of my wife.” Recognizing her husband’s very positive attitude toward her active life, W2A said, “My husband is great. He always supports me. But initially, he was also concerned and hesitant regarding my travel outside of the village.” She added, “He always tells me not to listen to what the community says and encourages me to focus on work.” Most husbands fully support their wives and are increasingly less concerned about what community members might think or say.

Supporting one’s wife is not always received positively by parents, community elders, and peers. Supportive husbands are sometimes portrayed as weak and submissive to their wives. A participant in FGDD1 expressed, “Society does not want to see husbands strongly supporting their wives; this is still true. If they do so, they are criticized as weak husbands.” However, H8D suggested that there is a significant decrease in the use of the label *joitngre*. But in general, husbands do face challenges, especially when they are more egalitarian about their wives traveling to towns and cities and spending nights away for training and exposure visits. To avoid backlash, sometimes, husbands prefer that their wives travel with a group of women, a less controversial and often accepted norm. Additionally, husbands must be willing to tolerate or ignore satirical comments from community members because it serves as the platform for women to challenge social stigma. If husbands protect their wives, other people in the community start to adjust their behavior and gradually stop making negative comments. For example, W6A said, “My husband’s unwavering support provides me the courage to challenge anyone who tries to point

a finger at me.” Agreeing with his wife’s statement, H6A said, “People say that I support my wife a lot and they see my wife’s frequent travel to markets or other towns as a problem, but I do not care what they have to say.” Women acknowledged that if they did not receive full support from their husbands, they could not enter and freely engaged in CVF.

However, some men are still skeptical and possess a traditional mindset. For example, H3A laughed and said, “They get easily cheated. In some places, they get Rs. 100 per kg but in others, they just give it almost for free.” When asked whether literacy programs and training would change that situation, he mockingly replied, “What do you do by providing training to women? *Barha barsha kukurko puchharma theluwa hale pani puchhar bangai* [dog’s tail will not get straight even if it is kept inside the bamboo internode for 12 years]. Nothing makes a difference even if you give training to them.” Although H3A clarified that he is not against women in CVF, his generalizations about women represent vestiges of the patriarchal system.

Women’s groups and cooperatives that are often initiated by government agencies and development organizations are effective in empowering women and encouraging them to pursue income-generating activities. Women who are already involved in various women’s groups and CVF activities play lead roles in convincing and providing counseling to other women in their communities. They not only serve as contact points for most development programs in their communities but also collectively put pressure on husbands, extended family members, and community members for women’s full participation in CVF. These pressure campaigns are crucial in convincing reluctant husbands and family members. A participant in FGDD3 said, “In some cases, to send women away from the village to attend training, we still need to obtain approval from husbands and extended family members. As a women’s group, we request and counsel hesitant husbands and families.” She added, “When we do it collectively, it is more effective because husbands and families get to hear different perspectives from our group members. They trust us more if we approach together.” Women’s group activities serve as a true source of inspiration to each other. New skills and challenges learned are shared among group members regularly and they tend to imitate lessons immediately. Group and peer learning are not limited to enhancing women’s collective voices and confidence building. These bold, new ideas, and behavior become genuine sources of inspiration to many other women and men in their communities and surrounding villages to follow. For example, H8D suggested, “When one person starts to listen to his wife, another woman sees that, and she also wants

her husband to do the same. The husband, too, is motivated to support his wife. I think this is how real change takes place.” However, the pace of such change is much slower among uneducated and elderly populations. They are still reluctant to adopt new ideas and practices. For example, this is reflected in the view of W6D, a 60-year-old woman. Despite being actively involved in producing and harvesting vegetables, she believes that women must listen to their husbands, not travel to markets, and follow community norms.

Interviewed farmers and key informants described economic pressures on households, improved road networks, expanding markets, and opportunities to travel to other districts and cities contribute to improving conditions for women and enhance their ability to negotiate more effectively with husbands and extended family members. For example, SDADOA and SDADOD suggest that women’s ability to contribute to household income through CVF can change husbands’ negative attitudes about their wives’ enrollment in CVF. When women generate income, they are greatly respected. Although not a participant in the study, RISMFDP shared his experience: “Initially, we observed that many women have faced violence from their husbands because they were involved in our programs. But as vegetable production started generating income, husbands started respecting their wives.” He added, “We have one lady, a treasurer [program users committee], who faced serious violence from her husband in the beginning but now her husband calls her Madam [reflecting the highest form of respect, it is rare in the region for a man to call his wife ‘Madam’]. The income generation has given power and position to her.” Other women also communicated that by making significant contributions to household income, they receive more respect from their husbands and family members. Women’s earned income, their active role in increased household food security and renewed respect sends positive message to community members, further transforming community norms. Additionally, their courage and success in CVF and the unwavering support they receive from husband’s represents ‘positive deviance,’ creating new socio-cultural norms, and inspiring more women to join in these activities.

## Discussion

In this research, we sought to address questions that concern four key issues: (1) women’s individual and collective initiatives to pursue CVF; (2) how these affect women’s self-confidence and the gender division of labor; (3) conditions and dynamics of accepting and favoring women’s CVF roles; and (4) normalizing women’s new roles as income earners. These four issues reflect the importance of understanding the social relationships in

which women's innovative behavior is embedded. CVF initiatives to increase household income are not individual actions but joint pursuits of smallholder families. Through technical and financial support, smallholder women are especially encouraged to initiate CVF. Most have received government and development agency support, e.g., startup money, training, seeds, subsidized equipment, etc.

Our findings indicate that CVF risk-taking women tend to be young, educated, and strongly supported by husbands and parents-in-law from the onset. Apart from increasing household income, CVF enables women to actively participate in skill development training, learning exchange visits, group activities, sharing knowledge, confidence building, and supporting each other to meet existing and new challenges. Additionally, CVF activities are more egalitarian for women (to some extent for men, as well) and present fewer gender stereotypes. Husbands work together with their wives in CVF activities and face less criticism for their extensive support of their wives. This is notably different from non-commercial staple crop activities in which roles and responsibilities of men and women are strictly prescribed. The status associated with increased income through CVF enables women and their husbands to ignore or counter derogatory clichés. Interviews revealed that most women involved in CVF are not targets of derogatory clichés or barriers restricting sale of produce locally or beyond. Families that are still cautious about women traveling outside their villages receive persuasive appeals, counseling, and pressure from women's group members. Although a few women and their husbands initially faced some indirect criticism, as they generate income and contribute to household food security they are viewed as family breadwinners and earn respect. Their successful endeavors create the impetus for more women to explore CVF and gain wider social endorsement.

As noted in previous research [16], some women still face patriarchal and religious attitudes and practices, albeit subtle and indirect. They still need strong support from their husbands, families, and women's group networks for CVF. However, even very modest household levels of productive agricultural assets [15, 27] do not preclude women's CVF activities. A possible explanation for these contrasting findings could be that women farm jointly with their husbands and family members, with earning income to meet basic household needs being their principal motivation. Traditionally defined gender roles and division of labor in cash crop activities are rarely observed [11, 35]. This study also differs from previous research which found that women's income earning is perceived as a threat to male breadwinner roles [6, 30]. No woman indicated undermining marriage

because of her entrepreneurial endeavors [19]. Further, no husband or extended family member noted diminished family prestige due to women's income-generating activities [30]. Strikingly, despite initial concern, women's conversations with non-relative males (e.g., representatives of government agencies and development organizations) and traveling for skill development training and exposure visits to other villages have not degraded family reputation [26]. No one reported being confined within household boundaries [18], though some initially needed women's groups to convince their families that travel is appropriate and safe.

Most of our results differed significantly from past studies conducted in similar contexts around the world. Several factors may help explain this. First, the region of the country has been receiving major program support focused on increasing household food security. Second, enhancing women's income-generating activities through agriculture is a major approach to achieving household food security, their empowerment, and gender equality. Consequently, women receive no-cost skill development training and exposure visits, startup money for commercial farming, and subsidies to buy agricultural equipment. These initiatives have helped many families to initiate CVF. It is important to note that some men have also received similar support. Third, a more democratic political system based on the newly promulgated constitution favors and guarantees women's inclusion in the social, economic, and political spheres. Further, it encourages more gender-inclusive policies and programs that may also have contributed to women's freedom and increased their roles in income-related activities. Fourth, emphasis on girls' education, improved transportation networks, and communication (television, mobile phones, the internet, and social media) have been instrumental in furthering women's roles in cash crop activities. Fifth, global awareness and campaigning for women's rights possibly have indirectly supported women seeking rights and more freedom. Finally, limited landholding (<1 hectare), decreased staple crop productivity in the region, household food insecurity, and overall economic hardships that families face are also major drivers of change.

Some findings, however, clearly echo previous research. Despite their hard work and income earned, women are still expected to complete a full range of household chores [6]. Women's earlier experiences caused them to fear community backlash, confirming how a deeply rooted patriarchal system still influences the lives of women, regardless of moral support received and income earned [3, 31]. This reflects the broad socio-cultural embeddedness of women's status as subordinate to men. Women subconsciously feel that they are morally obligated to 'honor' their husbands and follow socially

prescribed roles. Moreover, women who have high school or more education are encouraged to find professional jobs but with strong preference being in nearby towns or in their district.

This study also aligns with previous research about women's access to market-based agricultural activities enhancing gender parity at household and community levels [29, 35]. There are strong indications that women's group-based learning strategies [20] and cooperatives [14] are essential for women's successful and continued involvement in a market-based economy [10]. Collective initiatives are important for reaching other women in the communities and establishing new norms for women's income-generating activities [8]. To eliminate discriminatory and restrictive practices, it is crucial to engage husbands [12, 16]. Men and women working together in the household promotes business activities and family wellbeing and helps eliminate negative attitudes toward women's entrepreneurship [19]. Women's continued success in CVF and its expansion to include more women in additional communities will benefit from the support that they receive from family, community members, and development agencies.

## Conclusion

We consider recent changes in husbands' family, and community members' attitudes toward women's access to agricultural markets and increasing social acceptance of their freedom to actively engage in income-generating activities as encouraging developments. Given that patriarchy remains prevalent and husbands traditionally control women's everyday lives in South Asia [3, 26], the experiences of women living and working in remote districts of Nepal provide a modestly optimistic perspective regarding women's agricultural entrepreneurship and overcoming cultural barriers. CVF activities not only strengthen critically needed household income and food security but also provide crucial opportunities for women's empowerment. Key elements of this are enhancing mutual understanding and cooperation with their husbands, actively forming women's groups, freely engaging in income-generating activities, collectively supporting each other, creating new norms for women, and serving as role models. Findings in this study suggest that changes in socio-cultural practices that restrict women's behavior can be negotiated as economic gains become increasingly evident.

However, we acknowledge that our qualitative study involved a modest-sized sample of people who are actively engaged in CVF and can be considered as 'positive deviants' from the mainstream. They cannot possibly reflect the full spectrum of women and their

families in the region, and we cannot generalize our findings too widely. Most women in the study districts still do not participate in CVF activities and not all husbands are willing to compromise gender-related socio-cultural norms and practices. Nonetheless, the findings are powerful and provide valuable insights which can benefit further research in reducing patriarchal-based limitations for women's CVF activities.

These findings may also provide support for those seeking to strengthen women's initiatives to negotiate socio-cultural norms in market-based agricultural systems. It seems that expansion of the scope and scale of women's engagement in CVF will require continued significant socio-cultural change involving policy and program support (at local, national, and international levels) for women, their families, and community members. One component may be to identify proactive women and invest in them to serve as catalysts and change agents. Policies and programs intended to enhance women's roles in CVF must include husbands, parents-in-law, and other elderly members of the community. Additionally, there is need for cold storage and small-scale processing centers. These are likely to encourage more women to join CVF and eventually may lead to rural women's empowerment and gender equality, highly valued development goals.

Future efforts to understand why many women are still not participating in CVF and many husbands and family members are not yet willing to support women is imperative, given that women who are already involved have generated critically needed household income and improved household food security. Additionally, research directly comparing people involved in CVF and those not involved in CVF in diverse regions and ethnic communities in Nepal could help identify specific processes of formal and informal change in social norms to provide a more complete picture of positively changing attitudes toward rural women's initiatives in CVF and associated processes of social transformation.

## Abbreviations

ACDOA: Assistant Chief District Officer *Achham*; CVF: Commercial vegetable farming; FGDs: Focus group discussions; FGDA: Focus group discussion *Achham*; FGDD: Focus group discussion *Dadeldhura*; H1A–H8A: Husband 1 *Achham*–H 8 *Achham*; H1D–H8D: Husband 1 *Dadeldhura*–H 8 *Dadeldhura*; KIF-GDK: Key informants focus group discussion *Kathmandu*; INGOD: International Non-Governmental Organization *Dadeldhura*; RISMPFD: Raising Incomes for Small and Medium Farmer Project *Dadeldhura*; W1A–W8A: Wife 1 *Achham*–W 8 *Achham*; W1D–W8D: Wife 1 *Dadeldhura*–W 8 *Dadeldhura*.

## Acknowledgements

The authors are grateful to women and men who participated in interviews and focus group discussions, and representatives of government agencies and development organizations, who enthusiastically supported our data collection process. The authors especially appreciate Ms. Samjhana Sharma's, Research Assistant, significant role in data collection.

**Authors' contributions**

RM traveled to the research sites, observed and provided crucial feedback during data collection and analysis, and made significant contributions reviewing and editing this article. Both the authors read and approved the final manuscript.

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**Funding**

Graduate Student Travel Award for International Studies in Sustainable Livelihoods 2017—College of Agriculture and Life Sciences, Iowa State University, Ames, Iowa. This research did not receive any other specific grant from external funding agencies in the public, commercial, or not-for-profit sectors.

**Availability of data and materials**

Yes.

**Declarations****Ethics approval and consent to participate**

Institutional Review Board. Yes.

**Consent for publication**

Yes.

**Competing interests**

The authors whose names are listed immediately below certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements) or non-financial interest (such as personal or professional relationships, affiliations, knowledge, or beliefs) in the subject matter or materials discussed in this manuscript.

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Received: 28 September 2021 Accepted: 3 March 2022

Published online: 05 April 2022

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