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UNDERSTANDING GENDER AND POWER RELATIONS IN HOME GARDEN ACTIVITIES: EMPOWERMENT AND SUSTAINABLE HOME GARDEN UPTAKE

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TECHNICAL REPORT

Understanding gender and power relations in home garden activities: Empowerment and sustainable home garden uptake

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Glossary

CBT	Community-based trainer
FGD	Focus group discussion
HG	Household garden
KII	Key Informant Interviews
LAS	Livelihood portfolio and agency survey
MEL	Monitoring, evaluation and learning
NGO	Non-governmental organization
PDoWA	Provincial Department of Women's Affairs
SSI	Semi-structured Interviews
USAID	United States Agency for International Development

Executive summary

The study “Understanding gender and power relations in home garden activities – Empowerment and sustainable home garden uptake” was undertaken as part of the collaboration between the World Vegetable Center (WorldVeg) and Stockholm Environment Institute (SEI) under the USAID-funded project "Deploying vegetable seed kits to tackle malnutrition in Cambodia" (referred to as the home garden project). The study aims to inform the project’s scaling-up strategy, implementation processes, monitoring and evaluation, and capacity development plan for project staff and partners. The study seeks to answer the following questions:

1. How does home gardening fit into women and men’s livelihood portfolios and aspirations?
2. What are the perceptions and priorities of women and men on the nutritional status of children and other household members, and how do they seek ways to address nutritional deficiencies?
3. How will home gardening serve to address the nutritional deficiencies of household members in ways that empower women?

The study was conducted with seven randomly-selected project client groups in the provinces of Siem Reap and Battambang in Cambodia. The study team conducted five key informant interviews (KIIs) with the Provincial Department of Women’s Affairs (PDoWA) and local NGOs, seven focus group discussions (FGDs) with the project beneficiaries (clients), and 25 semi-structured interviews (SSIs) with existing and potential clients of the project, 15 of who were women.

The study found that home gardens play a significant role in the livelihood portfolios of women due to their responsibility for family food provision and subsistence livelihoods, although home gardens are not one of the key income sources in household economies. Project clients are not motivated by nutritional outcomes when they enroll in the project, but more by opportunities for generating extra income and having a clean food source that both helps prevent sickness from toxic vegetables and saves family spending on food and medical care. It must be noted that at the time of the field work for this technical report, household garden clients had not yet received training in nutrition from the project.

Although home gardens fall within women’s traditional space, gender division of labor is not rigid in this realm. Men tend to take on tasks considered as more “heavy” work associated with home garden establishment, while women take on the “lighter” tasks related to planting, weeding, fertilizer application, and daily garden tending tasks. However, it is common to see women and men in client households perform tasks that are traditionally perceived as the responsibility of the opposite sex. Women believe that they do not receive as much appreciation as they take on additional responsibilities in the absence of their husbands. On contrary, men think they have received more recognition and appreciation for helping their wives. The study argues that gender and social norms are reinterpreted to justify and value men’s engagement in the unconventional

domain i.e. home garden; and that the participation of men in the home garden project reinforces positive attributes of men's identity as knowledgeable, hardworking and supportive husbands, but does not necessarily indicate a change in gender power relations.

The study also found that gendered roles and stereotypes relating to the capacity of women and men in the roles of technical provider influence client preference over who they turn to for advice on home gardens. While some female clients feel more at ease communicating with female trainers, others feel less comfortable contacting female trainers as they are perceived as being busier because of their household responsibilities. In addition, there is the perception that female trainers may not be as capable or comfortable in doing all the tasks required of a trainer – for example tasks considered as “dirty” or “heavy” – and are therefore not as suitable as men in taking on the roles.

The study found that the HG project does not require serious negotiation between husband and wife and the power of women in making the decisions in the project might not be an indication of improved status, but links to women performing their “duties” in their traditional domain. The study argues that the criteria for selecting project clients such as the availability of land and accessibility to water source creates a condition that does not require women to negotiate for reallocation of household investment – an opportunity for enhancing women's capacity in gaining more control over household resources, particularly in a situation of competing resources and priorities.

The study draws attention to creating platforms such as periodic clients' meetings and interactive sections between clients and other project stakeholders to discuss technical challenges, channel their concerns and request support from relevant stakeholders. Those challenges include water-related issues, pest and disease management, cash investment, sourcing good quality seeds, and retention of knowledge. Such platforms should promote local solutions and collective actions to address identified challenges that ultimately increase self-reliance and solidarity among clients and community members. Furthermore, technical support should be delivered in participatory ways that dialogue with context-specific knowledge and experience of clients on soil, water and weather variation, for example.

The approach of addressing nutritional deficiency through the home garden project is influenced by pervasive customary norms and expectations on women's reproductive role and livelihoods. Empowering women in their traditional domain requires commitment of resources such as finance and expertise for conducting participatory processes that enhance women's self-esteem and assertiveness to negotiate for their interests. For instance, gender-sensitive technical training should enable participants to question their socially assigned gender roles, to recognize the value of women's unpaid domestic and caring work, to exercise choices and engage men in reproductive and care obligations.

There is evidence of increasing self-confidence of women, brought about by the new knowledge and skills acquired from the project. These examples of increasing self-confidence should be

recognized by the project and promoted to generate more pervasive change in social perceptions of women's abilities in and beyond the project.

Home gardens have the potential to improve both nutritional and economic outcomes at the household level, as well as to client empowerment. The study therefore recommends that the project revise its approach during year 2 of implementation to support empowerment through two key pathways. The first focuses on opportunities to transform the social norms that lead to unequal gender roles and stereotypes by: i) promoting shared roles and equal benefits in the home gardens; and ii) challenging gender stereotypes and enhancing self-esteem of women and men. The second focuses on opportunities to balance the power asymmetry between the project implementers and the clients through meaningful participatory planning and implementation processes. The report concludes with a summary of implications for the project's operational approach and the recommended capacity development actions for project implementers.

PART 1 - INTRODUCTION

I. Overview

The World Vegetable Center and SEI are collaborating to develop and pilot empowerment strategies in the development and management of home gardens. This collaborative effort is a part of the project "Deploying vegetable seed kits to tackle malnutrition in Cambodia" funded by USAID (referred to as the household gardens (HG) project). The project aims to contribute to reduced malnutrition, especially of women and children, through diet diversification, particularly by promoting the production and consumption of vegetables as affordable sources of essential vitamins and micronutrients. The collaboration between WorldVeg and SEI comprises two activities: 1) conducting a gender study in project areas in Siem Reap and Battambang provinces to inform the design of the project's scaling-up strategy, implementation processes, empowerment indicators and capacity development plan for project staff and partners; and 2) building capacity for local partners to ensure they can deliver gender-sensitive training and facilitate empowerment processes.

The project commenced in January 2016 in Siem Reap and Battambang provinces. During the first year, the project selected more than 1,400 people (82% of them women) to be project clients. The clients have been organized into clusters of around 10 people (based on villages) to receive training on establishment of home garden, planting crops, nutrition, and food preparation. By the time the study was being conducted, most of the project clients' had received basic garden sensitization exposure and trainings on garden site selection, land preparation and crop establishment. They also received seed kits comprising eight plant varieties recommended by WorldVeg based on nutritious characteristics and compatibility with local conditions. Each client cluster is led by a community-based trainer (CBT) who volunteers to host the demonstration garden. Project activities in the first year have primarily been implemented by four local NGOs subcontracted by WorldVeg, each in charge of different geographical areas. Those NGOs are responsible for sensitizing targeted communities with the project's goal and approaches on nutrition and home gardens; selecting clients and CBTs based on pre-determined criteria i.e. households with children under five years old, having available land and access to water for gardening, and willingness to join the project. The implementing partners are also responsible for delivering technical training based on the WorldVeg curriculum, monitoring and collecting data for the project's performance indicators. The project is to be scaled up to reach up to 8000 individuals in the remaining two years based on the lessons in the first year including findings of the gender study.

The gender study was conducted between July and September 2016. It discusses issues that emerged in the implementation of the project activities up to the point of the study, acknowledging that some issues might no longer be relevant after other project activities have been accomplished.

However, it calls attention to gender and power relations in the project approach in the first year that should be addressed in the strategy for scaling in the coming years.

This report discusses the results of the gender study which was conducted by SEI and WorldVeg. The report is structured into three main parts.

1. Part 1: presents literature review on gender power relations and rural Cambodia, the study framework and methodology (sections II, III and IV).
2. Part 2: discusses the main findings on how gender operates in the home gardens project (section V) and how the project's design and implementation affects the empowerment of project clients and the sustainability of the home gardens (section VI).
3. Part 3: summarizes the study findings (section VII) and recommends empowerment pathways, as well as capacity development areas for the project partners (section VIII).

II. Literature review on gender power relations in rural Cambodia

Gender identities and status:

Cambodia has a patriarchal social structure, with male family headship. Traditional gender norms, particularly prevalent in rural areas, regulate women's behavior and confine them to the domestic domain. Women are respected by society, but only when they comply with the socially assigned subordinate roles and inferior social status, both in and outside the home (Save the Children Foundation, 2015). These gender norms are institutionalized through traditional codes of conduct for men and women (Hillenbrand et al., 2014). The *chbab srey* assigns women to manage the household and its finances, and to take care of the needs of their children and husbands. Women are also expected to be "calm, courteous and polite," and to respect their husbands at all times (Save the Children Foundation, 2015). These gender codes are passed down from generation to generation through mothers, and are taught in school curriculums as elements of "national identity" and cultural heritage. This legitimizes and reinforces gender inequality norms and stereotypes, and limits women's agency and livelihood options (Brickell, 2011; Hillenbrand et al., 2014). Perceptions of women as weak, and of women's work as domestic and "light," create a stigma for women who step into male domains, such as those who are female heads of households. This stigma can lead to lower self-confidence (Hillenbrand et al., 2014; Save the Children Foundation, 2015). Such perceptions of women and women's roles also contradict reality, where women have the triple burden of home, agriculture and social responsibilities (ADB, 2015; FAO and National Institute of Statistics, 2010; Save the Children Foundation, 2015).

Women have begun to contest and negotiate gender roles in contemporary Cambodian society (Hillenbrand et al., 2014). A number of women interviewed by Brickell (2011) in Siem Riep recognized the bias and inequality inherent in the *chbab srey*, and are aware the code reflects a patriarchal system that restricts women's behavior. Many of the women felt women's obedience to the code has not been rewarded with peaceful, violence-free families. Young and educated women and men increasingly criticize gender ideals and seek more equal relationships. However, while most of the men interviewed by Brickell (2011) supported the idea of giving more attention to women's practical needs, they felt uncomfortable with the prospect of changing the existing hierarchy. Older men believed that men should not have highly educated wives, because the latter are outspoken and can question their husbands' ability to provide for the household. These types of opinions have pressured women to follow their prescribed domestic roles (Brickell, 2011).

Gender roles in agriculture and food production:

Agricultural activities are highly gendered. In general, men are responsible for activities that are more physically demanding, while women carry out work that is closer to home (World Bank, 2015). For example, in rice production, women are typically responsible for work such as seed

preparation, transplanting, weeding, harvesting, and transporting, while men take charge in land preparation, water management, pesticide application, and manual threshing. Women grow vegetables mainly for household consumption, while men engage in commercial vegetable production, although women market the vegetables. Women raise smaller livestock such as pigs and poultry, while men rear larger livestock such as cattle and buffaloes (ADB, 2015). Although both women and men have opportunities to generate income in agricultural activities, the gendered division of labor creates more opportunities for men to generate higher returns to labor and higher incomes for the household. However, in recent years women have gained more decision-making power in managing household resources, as the result of better access to agricultural training and NGO advocacy (World Bank, 2015).

Gender in nutrition and home gardens:

Nutrition: Women in rural households in Cambodia are disproportionately malnourished. As a household becomes more food insecure, the women in the household risk becoming more underweight and vulnerable to disease. This tendency may be influenced by persistent social norms that require women to sacrifice food for men and children. Even when a household is food-secure, women still give the best portions of food to men (Save the Children Foundation, 2015). Therefore, in Cambodian rural households, it is very likely that women may eat least and last.

Incomes: Gendered differences in perceptions on how money should be spent can also influence nutrition in the household. For example, in some contexts, Verhart et al. (2015) found that men believed that food should be produced at home, not bought, while women thought it was important to buy food to make nutritious meals, even though they also wanted to save money. Men tended to decide what portions of food produced at home was for sale and for home consumption, and also control women's access to transportation for buying food at the market (Verhart et al., 2015).

Time: Assuming that women spend more of their income on food and health, increasing their control over use of income can improve household nutrition. Women with greater control over use of their time may also allocate more time to improving the health of their babies and young children, as well as their own health. However, interventions based on these assumptions have not created beneficial outcomes for food and nutrition security (Verhart et al., 2015), and do not benefit women because they are supposed to use incomes to serve the family's needs. Efforts to enjoin men into joint reproductive responsibilities define the need for greater gender equality that can empower women. This strikes at the heart of this study's focus on gender power relations, as a pivot for better nutrition for all.

Land and seeds: Home gardens are not totally under women's control as they appear to be. A closer look into how home garden resources are managed and controlled reveals a more nuanced picture of power dynamics between women and men in rural Cambodia. Though women can access land for home gardens, when household land is limited, men will choose which crops to plant and will probably overrule women's priority food crops (ADB, 2015). Men have better access to seeds and

fertilizers, but the use of these inputs is negotiated between men and women (World Bank, 2015). A new channel of seed supply offered by the home gardens project may strengthen men's existing control without enhancing women's access; use of these seeds needs further research and testing.

Crop decision-making: Women can sell home-grown vegetables. Nevertheless, when secondary crops provide significant amounts of income, the men usually take over their production and sale (World Bank, 2015). Women have less access to technology, market information, and capacity-building opportunities, partly because extension agents are mostly male, and focus on male agricultural activities such as rice farming (ADB, 2015). Organizing extension training for women is necessary. However, a top-down training approach (i.e. without consulting women's learning needs and other practical matters) could reinforce the pervasive perception of women as passive participants. Therefore, promoting greater control of women over key inputs, production and market for home gardens might be one of the strategies for women's empowerment and sustainable outcomes of the project.

Female-headed households:

Women head 20% of agricultural households in Cambodia. Most of these women are permanent heads, as their households lack an adult male member, while 11% are temporary heads as their male counterparts are working elsewhere or ill. Female heads of households face particular challenges when engaging in activities traditionally carried out by men, such as interacting with local authorities, and in getting access to resources such as training (World Bank, 2015). Female-headed households also have more limited access to irrigation water, and tend to buy land less (ADB, 2015).

Access to and control over livelihood resources:

Gender roles and norms dictate women's access to and control over livelihoods resources. Drawing inspiration from the Sustainable Livelihoods Framework, we can divide these resources into five categories of capital: human, natural, financial, social and political, and physical.

Human capital: The literacy gap between women and men in Cambodia is high, particularly in rural areas. For instance, female-headed households have a literacy rate of 42%, compared to 80% for male-headed households (FAO and National Institute of Statistics, 2010). Older female farmers and female heads of households therefore have more difficulty accessing information, extension training, and financial services, which subsequently affects agricultural productivity, household incomes, and nutritional outcomes (World Bank, 2015). Even though women account for more than half of the agricultural labor force, they have less access to technology, market information, and capacity-building opportunities compared to male farmers. Extension agents are mostly male, and focus on male agricultural activities (ADB, 2015). This poses social and communication barriers to female farmers when they try to access information and services. However, NGOs have more recently tailored their extension services to women's needs (World Bank, 2015).

Natural capital: Although statutory laws give women and men equal rights to land and property (World Bank, 2015), in reality men are the predominant owners of land and large assets (Save the Children Foundation, 2015). When choosing crops to grow on limited household land, the husbands' wishes usually prevail (ADB, 2015).

Financial capital: Women have less access to credit and are dependent on men for loans. While women can manage finances at the household level with independence, the authority to make decisions on large purchases lies with the men. In practice, men do consult their wives when making these decisions (Save the Children Foundation, 2015). High rural-urban migration rates among men create challenges for the women running the household in their absence, as they do not have the authority to make important decisions such as large purchases (Save the Children Foundation, 2015).

Social and political capital: Societal trust and social safety nets in Cambodian society were seriously damaged by the years of civil war and Khmer Rouge regime. Women's social networks suffered the same fate. Women are reluctant to collaborate, and prefer to work individually (World Bank, 2015). The lack of social capital makes empowerment through collective action more difficult. In the public arena, women are perceived as passive participants or learners, compared to men who take on more decision-making roles. Women's voices are largely ignored, with men's priorities influencing decisions made at the community level (Save the Children Foundation, 2015). Women's participation is limited by their multiples roles (agricultural, domestic, social), which limit their free time. Women in small and medium-sized enterprises (SMEs) are not well represented in business policy making processes because of cultural norms and domestic responsibilities that reduce women's access to business information and opportunities to expand their contacts (ADB, 2015).

Physical capital: Female-headed households have significantly less access to agricultural tools and machinery, such as hand tractors, water pumps, threshing machines, and rice mills, compared to male-headed households (FAO and National Institute of Statistics, 2010, World Bank, 2015). Men have better access to seeds and fertilizers, but the control over the use of these inputs is negotiated between men and women (World Bank, 2015). Because of their higher literacy rates, men often take charge in dealing with buyers and collectors for important crops, such as rice, while women sell secondary crops such as home-grown vegetables. Nevertheless, when secondary crops provide significant amounts of income, the men usually take over their production and sale (World Bank, 2015).

III. Analytical framework

The study adapts Kabeer's framework on empowerment (1999), i.e. resources, agency and transformative changes, for gender and power analysis and for recommending empowerment pathways.

Figure 1: Empowerment Framework (adapted from Kabeer, 1999)



“Resources” are the *pre-conditions* or rules and norms that govern social structure and ideology, and which enable individuals to create and pursue choices, or which disable them from doing so. The study analyses how gender roles and social norms affect household livelihood portfolios and allocation of resources such as labor, and influence the interests of women and men in home gardening. The study also analyses how gender influences the project’s design and approach. Conversely, the study seeks to understand how the project’s ambitions and interventions have an impact on gender and clients’ agency.

“Agency” is the ability to assert and act upon one’s interests. Agency comprises three elements: *power within* (awareness of challenge resulting from equality, and the ability to define objectives, *power with* (seeking allies or building collectivity), and *power to act*. In regards to *power within*, the study examines how gender influences the motivation of women and men in joining the project. Self-esteem is a critical element of *power within*. This is linked to psychological rewards; for example, the sense of fulfillment, respect, and self-confidence when performing certain roles or achieving desired outcomes from home gardens. The study explores how gender influences self-esteem of female and male clients when they perform project activities. It also examines how gender roles inform constraints perceived by female and male clients when investing in and maintaining

home gardens, and their ideas for addressing those constraints. Regarding *power with*, the study explores experiences and insights of female and male clients on group membership, reciprocal support and communal activities. Regarding *power to*, the study assesses how female and male clients make decisions on joining the project and investing in home gardens; and how they negotiate their needs and interests with the project implementing partners. In addition, the study also examines perceptions and priorities of women and men on the nutritional status of their family members, and their solutions for nutritional deficiencies, to assess their aspirations for nutritional outcomes from the home garden. The study findings and recommendations are intended to inform future home garden planning and implementation to improve the viability of home gardens as a development solution for increasing nutritional status.

Based on the aspirations of and inputs from female and male clients, the study recommends specific actions to support two pathways to facilitate client's empowerment, to transform gender norms and power asymmetry among the project holder, NGO partners and clients.

IV. Methodology

Scoping Visit:

The study comprised two field visits. An inception visit was conducted in Siem Reap on 25-29 July 2016 by SEI's gender specialist (Ha Nguyen) and the World Vegetable Center staff (Ly Sereyrith and intern Alex Ro). The aim of the trip was to obtain an overview of the project's scope of intervention, stakeholder perspectives on their engagement in the project, and the development context of target areas. Using the empowerment framework as a guide, the team examined whether the project had created an *enabling environment* for women and men to express their interests and ideas with implementing actors, such as NGO trainers and monitoring staff. The team also explored aspirations of female and male clients for the home garden project, and how they negotiate investment in home gardens with family members (*agency*). The team met with two NGO partners, namely Trailblazer Cambodia Organization (TCO) and the Rural Economic and Agriculture Development Agency (READA), to understand their roles and approaches in engaging with the target communities, as well as to assess their capacity in gender mainstreaming. The team conducted three group interviews with a total of nineteen female project participants (referred to as clients) in Ta Tork and Kampong Tayang villages (Pouk district), and Kork Trom village (Kralanh district), to explore their motivations in participating in the project, their household's livelihood strategies, and how resources have been negotiated for home gardens. The team observed a training on land preparation in Ta Tork village, and interviewed a male community-based trainer (CBT) on his motivation and role in the project. The team also met with the Provincial Department of Women's Affairs, Agriculture Development Denmark Asia (international NGO), and East-West Seed International (seed supply company) to learn about gender and development issues and their experiences around working with women and smallholder farmers.

Results of the scoping visit:

By the end of the scoping visit, the study team argued that the criteria for selecting project clients such as households with availability of land for home gardens and accessibility to water source, which aim to ensure viability of the project, have created a condition that does not require women to negotiate for reallocation of household investment – an opportunity for women gaining more control over household resources. Therefore, instead of assessing gender issues in access to and control over food production, consumption and reproduction, the team decided to focus on: 1) investigating the viability of home gardens in the context of current portfolios of household livelihoods; 2) examining women and men's views on the nutritional status of their household members, and solutions for deficiencies; and 3) exploring how home gardening can enhance the nutritional status of household members in ways that empower women.

Research questions:

The following research questions were developed, based on insights from the scoping visit.

1. How does home gardening fit into women's and men's livelihood portfolios and aspirations?
2. What are the perceptions and priorities of women and men on the nutritional status of children and other household members, and how do they seek ways to address nutritional deficiencies?
3. How will home gardening serve to address the nutritional deficiencies of household members in ways that empower women?

Second Visit:

The study team developed sub-research questions and strategies of inquiry for these questions (see annex 1). Three qualitative methods were used throughout the study – key informant interviews, focus group discussions, and semi-structured interviews.

Key informant interviews (KIIs) were conducted with the Provincial Department of Women's Affairs and five NGO project partners. The KIIs aimed to understand: i) the social and cultural norms related to gender roles and access to and control over livelihood resources; ii) how those norms have changed in the recent years; iii) the role of NGOs in the home garden project; and iv) experiences of NGOs in gender and empowerment.

Semi-structured interviews (SSIs) were conducted with 25 people (15 women and 10 men). Eighteen of the interviews were held with project clients, and four were with community-based trainers (CBTs). The interviews aimed to gain a more in-depth understanding on how household livelihood strategies, gender norms and perceptions and priorities on health and nutrition of women and men affect their reasons for joining the project. The SSIs also examined constraints faced by female and male clients regarding investing in, accessing and applying new techniques in home gardens. Furthermore, the SSIs explored opportunities and mechanisms to accommodate the interests of women and men in home gardens and gain better control over home gardening and nutrition activities.

Focus group discussions (FGDs) were held with four client clusters¹ with a total of 43 participants (34 of who were women). The FGDs aimed to gain collective views on how home gardens fit into women's and men's livelihood strategies and aspirations; and how home gardening can address nutrition deficiencies of household members in ways that empower women.

¹ Client clusters: the project groups its targeted beneficiaries (clients) into clusters based on proximity or administrative unit. Each cluster has a model garden as the learning site hosted by a community-based trainer (CBT).

The study sites:

Village	Commune	District	Province
Prey Toteng	Bavel	Bavel	Battambang
Ballang Mean Chey	Khnach Romeas	Bavel	Battambang
Taul Rovieng	Lvea	Puok	Siem Reap
Prey Kmeng	Khnat	Puok	Siem Reap
Ta Tork		Puok	Siem Reap
Kampong Tayang		Puok	Siem Reap
Kork Trom		Kralanh	Siem Reap

PART 2: MAIN FINDINGS

V. Gender in the home garden project

This section discusses the position of home gardens in the livelihood portfolios of women and men. It also explores how social norms and values, which are often gendered, influence the interests and participation of women and men in the home garden (HG) project.

5.1 Home gardens in livelihood portfolios of women and men

Livelihood portfolios of women and men were explored during the focus group discussions (FGDs). Participants listed both subsistence-based and income-generating livelihood sources and ranked the importance of those incomes to their families. They also described seasonality and mobility of each livelihood source. Table 1 presents the results of the livelihood rankings in the four FGDs, and gives an overview of the diversity of income sources and their perceived importance in household livelihood strategies. The income sources were scored in order of importance (the highest score indicating the most important income source).

Table 1: Livelihood ranking in the focus group discussions (n=43)

Household livelihoods	FGD-1	FGD-2	FGD-3	FGD-4
Rice farming	9	9	7	4
Cow rearing	4	8	6	2
Pig rearing	7	7		
Construction	8	4		1
Chicken and duck rearing	6	6	1	
Home garden	5	2	4	
Vegetable vendors	2		5	
Farm labor (cassava and corn harvest)		5		
Cash crops (watermelon, sweet potato, cucumber, corn)			2	3
Dessert vendors	3			
Moto taxi		3		
Carpenter			3	
Breakfast vendors (porridge, in village)	1			
Catching fish, crab, snails from rice fields		1		

Source: FGDs

The results suggest that home gardens are not perceived as an important income source; however, they play a significant role in household livelihoods in 3 out of 4 FGDs. Participants in Taul

Rovieng village explained that having “*vegetables to eat everyday*” is important for them. Commercial gardens are the second most important livelihood source to the majority population in Ballang Mean Chey village (FGD-3).² The results show that rice farming and livestock raising are perceived as the most important livelihoods in the studied villages. Work as construction labor, whether through day jobs in nearby areas or through long-term migration, is also a significant income source in Taul Rovieng (FGD-1), Prey Toteng (FGD-2), and Prey Kmeng (FGD-4) villages.

Table 2: Gender roles in livelihoods (n=43)

Household livelihoods	FGD-1	FGD-2	FGD-3	FGD-4
Rice farming	Wife	Husband does heavy work, wife does light work		Everyone; husband is the key person
Cow rearing	Both	Husband	Elderly & children	Both
Pig rearing	Wife	Wife		
Construction	Husband	Both; husband does more		Husband
Chicken and duck rearing	Wife	Both	Both	
Home garden	Wife	Everyone	Both	
Vegetable vendors	Wife	Both	Both	
Farm labour (cassava and corn harvest)		Both		
Cash crops (watermelon, sweet potato, cucumber, corn)			Both	Everyone
Dessert vendors	Wife			
Moto taxi		Husband		
Carpenter		Husband	Husband	
Breakfast vendors (porridge, sell in village)	Wife			
Catching fish, crab, snails		Husband		

Source: FGD discussions

Participants in the FDGs were asked to indicate the key person responsible for those livelihoods. The result is demonstrated in Table 2. The table shows that overall women and men jointly work in most farm-based livelihood activities, except pig rearing. However, men take more roles in the most important livelihoods such as rice farming and cow rearing, while women are in charge of less important livelihoods such as home gardens and poultry rearing. There is a clear gender segregation in non-farm livelihoods. Men dominate employment in construction, as carpenters, and as motorbike taxi drivers – those jobs that are perceived as needing skilled labor, or require large investments, e.g. a motorbike. Women run small businesses, such as vendors of dessert or

² According to the livelihood ranking Ballang Mean Chey (FGD-3), commercial gardens were ranked as the third most important income source after cow rearing. However, only two households in the village owned cows. Therefore it can be concluded that commercial gardens were the second most important source of income to majority population in this village.

breakfast. Remittance from migrant employment was not discussed in the FDGs but was mentioned in some in-depth interviews with project clients.

In-depth interviews found that both women and men migrate for work, internally to neighboring towns or larger cities, or internationally to countries such as to Thailand. However, it was found to be more common for male family members or younger generations to migrate for work, with one participant stating that up to “50% [of men] *are migrant workers away from home.*”³ While both women and men migrate for work, there are often different expectations when it comes to family obligations and returning home. Female migrants often tend to return home if they are needed to look after the family. A male respondent, whose wife passed away a year ago, told us that his daughter used to work in Thailand. She came back after her mother passed away to take care of the family.⁴ Men have also returned to their households but often for reasons other than family responsibilities, such as limited work opportunities, poor pay, illnesses and old age.

In summary, home gardening as a subsistence livelihood falls within the women’s realm. Though home gardens are not one of the key income sources in the household economy, they are considered an important food and income source, particularly for women because of their role as primary caregivers in the family.

5.2 Motivation for joining the home garden project

The study explored the aspirations of existing and potential project clients in joining the home garden project. This was done through FDGs during the scoping visit, and semi-structured interviews (SSIs), where respondents were asked about their reasons and expectations in joining the project. Furthermore, the study explored how respondents explained the linkages between home gardens and health and nutritional outcomes. We triangulated these responses with the aspirations and interests of existing and potential clients, to evaluate the viability of home gardens as a development solution for improving nutritional status.

Most respondents explained that their reason for joining the home garden project was to produce chemical-free vegetables for home consumption, which they often referred to as “healthy” vegetables. Participants from FGD in Kork Trom village said: “[We want] *healthy vegetables without pesticide and chemical.*”⁵ The concern regarding excessive use of chemicals to produce the vegetables sold in local markets was mentioned in many interviews by both female and male respondents. A male respondent shared: “*I want to have my own vegetables for consumption. It is good for my family to have our own vegetables. I am not sure about the quality of vegetables from the market. I don’t want bad health effects from chemicals.*”⁶ A female respondent explained: “[I want to]

³ HN-SSI-5-1M

⁴ HN-SSI-5-2M

⁵ FGD-Incept-3

⁶ PP-SSI-3-2M

*Learn new skills to grow vegetables by my own hand and make sure there is no chemical.*⁷ “I really do not want vegetables from the market because they are not good – too much pesticide is poisonous and affects our health.”⁸ Some respondents associated “healthy vegetables” with better health and saved medical costs from sickness caused by contaminated vegetables. For instance, participants in FGD in Kampong Tayang village felt confident that pesticide-free vegetables will improve health. A respondent said she will follow all techniques and expects her garden will “*make everyone healthier.*”⁹ Another¹⁰ believed there were “*health benefits from non-chemical vegetables. They [her family] won’t get sick*” and will eventually “*save money from buying medicine and going to doctor.*”

Another motivating factor in relation to producing vegetables for home consumption is to save food cost and reduce family expenses. “*I don’t have to spend money on vegetables*” a female respondent¹¹ said. Another respondent¹² explained her family was facing financial problems and wanted to spend less, and that she normally spent 10,000 Riel per day for vegetables, so she expected “*to have vegetables for eating and saving money. I don’t want to buy vegetables in the market.*” The concern of saving food cost was also mentioned by male respondents.¹³ “*I hope to have enough vegetables for household consumption without having to spend on vegetables. If it works well, I will expand the garden so I can sell the produce.*”¹⁴

The majority of respondents also believed that they can sell surplus produce from the home gardens. A respondent, who is also a CBT, said he “*wanted to expand the garden into commercial scale to grow clean crops.*”¹⁵ Another respondent¹⁶ expected that she could “*do the same as the others, and have a bigger farm to support my other livelihoods. I hope other people will come to buy my vegetables in the future.*” A couple of female respondents¹⁷ explained that they wanted to sell vegetables for money so that they could “*spend it on things, such as school fees.*” A CBT¹⁸ plans to expand his garden to produce vegetables for sale. He joined the project in early July 2016 and is already getting 2,000 Riel per day from selling the produce. He stated that this was an important daily income for his family.

Respondents expressed the desire to acquire new gardening techniques from the project to support commercial production, to generate income and to avoid using chemicals. A respondent stated: “*The main purpose of joining would be to learn and apply techniques to my commercial production.*”¹⁹

⁷ HN-SSI-3-1F

⁸ PP-HN-SSI-4-4F

⁹ HN-SSI-2-1MF

¹⁰ HN-SSI-2-3M

¹¹ PP-SSI-1-1F

¹² HN-SSI5-3F

¹³ HN-SSI-5-2M; HN-PP-SSI-4-2FM; HN-SSI-1-1M

¹⁴ HN-SSI-1-1M

¹⁵ HN-SSI-CBT-M

¹⁶ PP-SSI-2-2F

¹⁷ PP-SSI-5-3F

¹⁸ HN-SSI-5-1M

¹⁹ PP-SSI-3-1M

Another respondent²⁰ said “*I do not know about bio-pesticide and want to learn from the project*”. One respondent²¹ explained she did not know how to grow vegetables before, so she wanted “*to learn new techniques and not use chemicals*”. Many respondents, with or without prior experience in gardening, considered techniques provided by the project as new skill sets. A respondent²² who had been growing vegetables for 10 years said she expected “*to learn technical skills from the training program*”. A respondent couple said they “*want to learn new techniques and compare with the traditional way.*”²³ For some respondents, the new skill set offered a new livelihood option. “*I expect to get production techniques and skills. I have never grown vegetables before, and want this to be my new skill.*”²⁴ A respondent stated: “*I want to have my own vegetable farm in the future, and it is important to learn. Since I have no other skills, it is good if I can grow vegetables, with skills like liquid and dry composting.*”²⁵

Other motivating factors include getting the free seed pack and having available labor. For instance, participants in FGD in Kork Trom village explained one of the reasons for joining the project is “*getting the high quality seed pack.*”²⁶ The availability of time was mentioned by both female and male respondents. “*I have a small baby, and have to stay at home. I have time to spend on growing vegetables.*”²⁷ “*I wanted to join the home garden project because I do not have much work to do.*”²⁸

Only two respondents referred to “nutrition” among their other interests relating to home gardens. “*There are lots of vitamins in green leafy vegetables, which is good for the health,*” one respondent explained.²⁹ The other said he had learned about the nutritional benefits of vegetables from a HG project technician.

The study team further examined the perceptions and priorities of women and men related to the nutritional and health status of their family members, and the role of home gardens and diet in improving health. Most respondents admitted that they did not understand nutrition. Both women and men commonly perceived good health as the absence of disease and sickness, and linked it to being physically active. According to most respondents, important practices linked to good health include maintaining good hygiene, sleeping in mosquito nets, and eating healthy diets. Healthy diets often referred to chemical-free foods coming from their own farms, i.e. “*grow our own vegetables, raise our own chickens.*”³⁰ A respondent explained that cooked vegetables are better for health because there may be bacteria or viruses in raw vegetables.³¹ A couple in Prey Toteng

²⁰ HN-SSI-3-2F

²¹ HN-SSI-5-3F

²² PP-SSI-2-1F

²³ HN-SSI-2-2MF

²⁴ PP-SSI-3-2M

²⁵ PP-SSI-2-2F

²⁶ FGD-Incept-3

²⁷ PP-SSI-1-1F

²⁸ HN-SSI-1-1M

²⁹ PP-SSI-2-1M

³⁰ PP-SSI-2-1F

³¹ PP-SSI-1-1F

village said they would feed their children porridge with vegetables, eggs, fish and meat if the children are malnourished.³²

The study suggests that project clients were not motivated by increasing nutritional status of family members when they enrolled in the HG project, but rather by opportunities for generating extra income and having a *clean* food source for household consumption that helps prevent sickness from contaminated vegetables. It is important to understand the aspirations of clients in relation to home gardens, so that the project can accommodate these in project planning and implementation.

5.3 Gendered roles in home gardens

Gender roles in home gardening were explored in the FGDs and in-depth interviews with clients. Table 3 presents the consolidated results of 4 FGDs, where participants were asked to list activities related to home gardening and to indicate the main person in charge of each task by assigning an “X” in the relevant column referring to women and/or men. An extra “X” was added to a task that is jointly done by women and men, but women/men do more.

The results show that although home gardens are traditionally perceived as a women’s domain, both male and female family members are involved in home garden project activities. However, men tend to take on tasks considered as more “heavy” work mostly associated with home garden establishment, while women take on the “lighter” tasks related to planting, weeding, fertilizer application and other daily garden tending tasks. Men mainly work in establishing the home garden. On average, a garden takes 2-4 days to establish. Two-thirds of female respondents reported that their husbands and male family members completed most of the work on garden establishment, such as land preparation, bed raising, trellising and fencing. Land preparation is considered the man’s role because it is seen as a heavy task and often involves mechanical tools (such as hand tractors used for ploughing) which men typically operate. Women are mainly in charge of planting and regularly tending the garden, tasks which are perceived as light work. Overall, women spend more time working on the gardens compared to men, with most women reporting that they spend 30-45 minutes on the garden every day.

³² HN-SSI-2-2MF

Table 3: Gendered roles in home gardens

Home gardening	Men	Women
Site selection	XXXX	XX
Land preparation	XXXX	X
Bed raising	XX	X
Trellis installation	XXX	XX
Seed selection	X	X
Seeding production	XXXX	XXXXX
Planting	X	XXX
Watering	XXX	XXX
Fertilizer application	X	XXX
Fertilizer mixing		XX
Weeding	X	XXXXX
Making bio-pesticide	XXX	XXXX
Spraying bio-pesticide	XXXX	X
Composting (dry)	XX	XXXX
Composting (liquid)	XX	XXXX
Harvesting		XXX
Selling vegetables		XX
Food preparation	Men	Women
Meal planning		XXX
Cutting vegetables	X	XXX
Purchasing food		XXX
Cooking		XXXX

Sources: FGDs

The perception of “heavy” and “light” differs among households and villages, depending on how the tasks are done. Some tasks performed by women in one place are seen being done by men in other places. For instance, watering is considered in some families as light work performed by children or elders³³ and in others as heavy work that should be performed by men³⁴. In another example, spraying pesticides is considered as a heavy and toxic task³⁵ when using a big backpack container, but as easy work when using small spray bottles.³⁶ While the involvement of women and men in these activities in part can be explained by gender norms linked to heavy and light work, composting is a new technique introduced by the project that has yet to develop gendered attributes. Currently, the dominance of women in this activity is explained by their participation in the technical training.

Many respondents carry out tasks that are traditionally performed by the opposite sex. One third of respondents (five female and three male) view home gardens as a collaborative site where women and men come together to work and therefore roles might be blurred: “*We spend an hour together*

³³ PP-SSI-5-3F, PP-SSI-2-1F, HN-SSI-5-1M

³⁴ PP-SSI-2-1F, HN-SSI-5-1M

³⁵ FGD-3, HN-SSI-2-2MF, HN-SSI-5-1M

³⁶ FDG-4

on the garden. It's okay because we work for the benefit of the family.”³⁷ Men have also been involved in all aspects of the home garden. A female respondent described: “My husband does most of the home garden work. He waters the vegetables in the morning. After he gets home from construction work at 5 pm, he waters the garden. He does the weeding, land preparation, trellis installation. He used to work with vegetable production close to Phnom Penh before he was married, which produced cucumbers and many kinds of vegetables.”³⁸ Another shared a similar observation: “In my current garden, my husband does land preparation, bed raising, composting...all the hard work. He also helps me do weeding, watering and picking vegetables.”³⁹

In response to the question why they perform tasks that are supposed to be done by the opposite sex, many female respondents⁴⁰ explained that they have taken on the tasks due to the absence of their husbands. “I do everything in the home gardens myself because I am the only able key person at home.”⁴¹ Male respondents explained that they had attended the training⁴² and/or wanted to help their wives. “I’ve done most of the work since my wife has just delivered a baby,”⁴³ a male client said. He further added that his father helped in trellising, planting, watering, weeding and tending the garden daily. “My father is sick, so he does light work to help my mother.” Despite involvement of men in gardening activities, a home garden is still widely perceived as the women’s domain “because all men have to work outside, women stay at home and take care of the garden.”⁴⁴

5.4 The influence of social norms on women and men’s interests in home gardens

This section assesses the influence of social and cultural norms on the motivation and participation of women and men in the home gardens project. This is done through exploring the concerns and perceived psychological rewards of respondents when performing the role of the opposite sex and when their home gardens work well. The results of the SSIs show that women’s perceived benefits when performing and becoming successful in their traditional domain are less compared to that of men.

While half of female respondents believe that their neighbors will not view them negatively for performing heavy work related to garden establishment, they believe that they do not receive respect or appreciation when they do. One respondent said: “There is nothing wrong with that. People still think the same of you.”⁴⁵ Instead, many of them think that sharing their garden produce

³⁷ HN-SSI-2-2MF

³⁸ PP-SSI-1-1F

³⁹ HN-SSI-3-1F

⁴⁰ FGD-Incept-2, PP-SSI-2-1F.docx, PP-HN-SSI-4-3F, PP-SSI-5-1F, HN-SSI-5-3F

⁴¹ PP-SSI-2-2F

⁴² HN-SSI-5-1M

⁴³ HN-SSI-5-1M

⁴⁴ HN-SSI-5-1M

⁴⁵ PP-SSI-2-2F

will gain them respect: *“More people would like us and be happy because we have the habit of sharing with others and giving extra produce to other people. I am young, so I would be even more appreciated for being successful.”*⁴⁶ This is consistent with the *chbab srey*, the traditional women’s code of conduct, which states that women should be generous.

In contrast, most male respondents think that they are respected for helping their wives and working hard. One respondent remarked: *“I get more respect for job sharing and for kindness in helping my wife, and as a family that knows how to help each other.”*⁴⁷ In responding to a question about performing the role of the opposite sex, a young male respondent was confident that *“Others seem to like me more because I am a good-hearted man who doesn’t mind any kind of work.”*⁴⁸ Aligning with the social expectations of men – i.e. being successful and resourceful – also brings respect to men. One respondent commented: *“If they have a successful home garden, they will gain respect, but not as much as compared to having a successful commercial garden.”*⁴⁹ Another male CBT said: *“I am proud of myself as a community-based trainer because I am happy that I can help others; I can show my skills and enthusiasm.”*⁵⁰

The study therefore suggests that men perceive they have received more recognition and appreciation for entering unconventional domains compared to women. The study argues that home gardens have become a gender-ambiguous domain, with the level of engagement based on participants’ interests and perceived benefits; and that social values based on the notion of a “harmonized family” have been reinterpreted to accommodate men’s engagement in home gardens. A “harmonized family” was explained by the respondents as one in which husband and wife work together and help each other for the benefit of the family. It is commonly understood that in a “harmonized family” women have to obey and accommodate their husband’s wishes to maintain a happy family (Brickell, 2011). The new interpretation of “harmonized family” has shifted its focus from women as obedient wives to men as knowledgeable, hardworking and supportive husbands. It highlights the positive attributes of men’s identities, which results in sharing gender roles, but does not change gender power asymmetry and the social hierarchy that place men in a superior position to women. As a male respondent stated, *“Men should know everything and help their wives.”*⁵¹

5.5 The influence of gendered roles and stereotypes when interacting with trainers

While gendered roles do not seem to affect the motivation of men who are interested in the project, they seem to influence gender stereotypes relating to the capacity of women and men in providing

⁴⁶ PP-SSI-1-1F

⁴⁷ PP-SSI-2-1M

⁴⁸ PP-SSI-3-2M

⁴⁹ PP-SSI-3-1M

⁵⁰ HN-SSI-5-1M

⁵¹ HN-SSI-CBT-M

technical support, and preferences over who is sought for advice on their home gardens. It is important to note that there has been a confusion about the role of community-based trainer (CBT). By design, CBT is the host of the demonstration garden and is not supposed to provide technical guidance to her/his peers in the HG project. Nevertheless, some project clients and hosts of CBTs have assumed this role, i.e. the CBT is responsible for providing technical support to neighboring peers. It sometimes was not clear during the interviews who respondents referred to when they mentioned about trainer, i.e. NGO trainers or CBTs. However, the analysis on gender stereotypes and preference toward technical providers is still valid.

Participants in the FGD in Ballang Mean Chey village⁵² prefer female trainers “*because they are easier to communicate with.*” Many of them said they “*do not dare to ask questions to male trainers.*” On contrary, there was a reluctance to contact female trainers. “*A male trainer would be easier to talk to because a woman trainer seems to have more work to do (e.g. housework). Male trainers would be easier to access.*”⁵³ There was also the belief that the CBT should be male, as work on the “*home garden is a labor-intensive agricultural activity.*”⁵⁴ Participants in the FGD in Taul Rovieng village⁵⁵ expressed that they prefer male trainers because they would help them do everything, including land preparation. This view was held despite respondents never having a female trainer. They thought that female trainers might not want to get involved in “dirty things” such as touching cow dung. Nevertheless, the CBT in this village who wanted to become a trainer said she would not mind doing the dirty work.⁵⁶

It is important to recognize that preferences over who is sought for advice on their home gardens exists. The results highlight the need for the HG project to support both male and female trainers in developing their capacities as trainers, and at the same time challenge gender stereotypes relating to the capacity of women and men in technical supporting roles.

⁵² FGD-3

⁵³ PP-SSI-1-1F

⁵⁴ HN-SSI-2-3M

⁵⁵ FGD-1

⁵⁶ FGD-1

VI. Power relations and dynamics in the home gardens project

This section examines power dynamics in the project design and implementation, and discusses the impacts of project interventions on the influencing power of female and male clients at family and project levels. Based on this analysis, conclusions are drawn about the project's impact on empowerment and sustainability of the home gardens.

6.1 Intra-household power relations related to home gardens

The study assesses the agency of female and male clients by exploring how the decision to join the project was made; how resources invested in the home gardens were negotiated; and who decides to apply the new techniques learned through the project.

Responses suggest that joining the home garden project does not require serious negotiation between husband and wife. Many participants in FGDs in TaTork and Kampong Tayang villages reported that they discussed the decision to join with their spouses and that it was an easy decision to make.⁵⁷ Others⁵⁸ said they made the decision themselves because they believed that the home garden would benefit the whole family. The power of women in making the decision to join the project might not be an indication of improved status, but linked to women performing their “duties” in their traditional domain. In Cambodia, women tend to manage family finances and can make decisions over food and health care independently (Save the Children Foundation, 2015), and therefore, permission from husbands is often not required.

Despite many women feeling they had the power to make the decision to join the project, they still asked permission from their husbands. One woman expressed: *“I was the one who made the decision to join the project. I have free time and look after the children at home, so it is good if I can learn something. I asked for permission from my husband, and he had no concerns.”*⁵⁹ Some also sought encouragement and approval from their husbands on their decision to join the project. In one of the FGDs, the group expressed that they had consulted with their husbands about joining the project, and that their husbands encouraged them to join as they saw multiple benefits, such as receiving seeds, increased knowledge and improved family nutrition.⁶⁰ One woman expressed that: *“I decided to register because I wanted to learn. I did not ask my husband. Fortunately, he is happy because he always wants to learn from home gardens.”*⁶¹

Regarding decision-making related to investment in the project gardens, the study found that women in the home garden project do not have to negotiate for reallocation of household investment because the project targets households with existing resources for home garden.

⁵⁷ FGD-Incept-1, FGD-Incept-2

⁵⁸ FGD-Incept-2

⁵⁹ PP-SSI-1-1F

⁶⁰ FGD-incept-1

⁶¹ HN-SSI-5-1M

There is evidence that female clients have become more self-confident from gaining technical knowledge on, for example, land-preparation and bedding, which is knowledge traditionally held by men. Some of the women stated that they are able to influence their husbands or male family members to apply knowledge and change gardening practices. One woman expressed that “*my brother does the land preparation and heavy work. I do the rest. He knows the techniques, or I advise him.*”⁶² There was a situation in which the introduction of new gardening techniques brought about family conflict.⁶³ However, the confidence brought about by the new knowledge empowered the female client to persuade her husband to try new techniques: “*I tried to stay firm with my choice of technique, and I said to him [her husband] ‘If you want to use different techniques, I will grow the vegetables myself. We sometimes argue. In the end he follows my ideas because he wants to have organic vegetables.’*”

Convincing men to value and act on women’s knowledge is often difficult in Cambodia’s strongly hierarchical society, where status is determined by economic wealth, political affiliation and status, age, education, ethnicity, and gender. An NGO trainer⁶⁴ reflected on the feedback from her female trainees, stating that it is difficult for women to share their knowledge and wisdom with their husbands or male family members, because men do not want to listen to them as women are perceived as knowing less. It was found that men were more likely to listen to more “senior” or higher status people, such as village heads, health workers, and NGO staff. Therefore, incidences of empowerment where women do speak up and are listened to (such as in the example above) should be highlighted and celebrated by the HG project.

6.2 Ability to address challenges and achieve desired goals

Another dimension of women and men’s agency was explored by examining their ability to address problems in the home gardens. The respondents were asked to name constraints that they had experienced or are anticipating in sustaining the project gardens, and also to describe how they would overcome such challenges.

Most respondents worry about weather conditions, which cause floods during the rainy season and water shortages during the dry season, affecting the continuation of their gardens, despite the fact that the HG project promotes technologies that increase resilience to climate change such as bed-raising in land preparation. A respondent lamented: “[they face] *water shortage during the dry season. If it weren’t for the vegetable production, it would be fine. But with vegetable production, I am not sure if there will be enough water. I will grow only one cycle, then wait until the rain comes.*”⁶⁵ A coping strategy for water shortage is to stop growing vegetables during the dry season, “*grow vegetables only during the rainy season, as there is no water during the dry season. We have a tubewell but there is not*

⁶² PP-SSI-1-2F

⁶³ PP-SSI-1-1F

⁶⁴ HN-SSI-VSG

⁶⁵ PP-SSI-1-2F

*enough water for irrigating vegetables.*⁶⁶ Many⁶⁷ reported that crops, such as brassica, bitter gourd and long beans, were destroyed by too much rain this year. Participants in the FGD in Prey Kmeng village complained that brassica cannot grow when there is too much rain, and that they can only be grown after October. *“The early rains are acidic, and make the vegetables rotten.”*⁶⁸ A couple of clients said they have tried to drain out the water from their gardens but it did not work.⁶⁹ The respondents in Prey Toteng village mentioned that everyone has problems with water quality in the village. One respondent commented that: *“Calcium carbonate concentration is high, and vegetables cannot grow well with this water”* but they have come up with a solution: *“I store water in containers for a while for the calcium carbonate to precipitate. It’s a little better this way.”*⁷⁰

All respondents reported that they have problems with pests. One respondent complained: *“Pests are the main problem. We should apply pesticide regularly. This work consumes a lot of time.”*⁷¹ Some respondents were convinced that the bio-pesticide introduced by the project is effective. *“I have no significant problems [with pests]. My pumpkins were infested with insects. After I applied bio-pesticide, they’ve gone.”*⁷² Most of them complained that the pesticide repels pests only for a few days. Participants in FGD in Ballang Mean Chey⁷³ village said they applied what they learned from the bio-pesticide training, which has helped a little, but the bio-pesticide is not strong enough. They currently use it twice a week. They already consulted the trainer about pests, but it is still a problem. Making and applying bio-pesticide is time-consuming and labor-intensive, therefore many respondents, mostly women,⁷⁴ opt to remove pests manually as part of their daily routine.

Participating in the HG project has increased the workload of those involved, particularly women, by half an hour to an hour per day on average due to technical demands. Most female respondents did not consider the extra work to be a problem because their family members were also involved. However it is tougher for those with young children and without any family support. A female respondent shared: *“I spend an average of 30-45 minutes each day on the garden. It’s tough because I can work only when my child is sleeping.”*⁷⁵ She added that she established the garden all by herself, and that her husband did not help her even when she asked: *“He was not busy, just did not want to help.”*

⁶⁶ PP-SSI-2-1M

⁶⁷ HN-SSI-2-2MF; FGD-4; PP-HN-SSI-4-3F

⁶⁸ FGD-4

⁶⁹ HN-SSI-2-2MF; PP-SSI-3-2M

⁷⁰ PP-SSI-2-2F

⁷¹ HN-SSI-2-2MF

⁷² HN-SSI-1-1M

⁷³ FGD-3

⁷⁴ PP-SSI-5-2F; HN-SSI-5-3F; PP-SSI-5-3F; PP-SSI-1-1F; HN-SSI-3-2F; HN-SSI-1-1M

⁷⁵ HN-SSI-5-3F

Retention of knowledge is a problem encountered by half of the female respondents, even though they thought the trainings were simple and straightforward. One female respondent shared: “*I find all the trainings simple and easy to understand, useful, but difficult to remember.*”⁷⁶

A community-based trainer⁷⁷ shared similar observations: “*Not all clients can remember and apply the new techniques*”. Some of them suggested that the project provide guidebooks,⁷⁸ but others said written records are not useful because many female clients are illiterate.⁷⁹ The lack of ability to remember technical instruction affects crop growth. The respondent⁸⁰ further added: “*Vegetables of other clients have not grown well because they did not follow the techniques thoroughly.*”

Cash investment in the project gardens might be a significant constraint for many client households. Material inputs for establishing a model garden, including purchase of seedling trays, trellising nets, clear plastic, and fertilizer, is estimated at roughly US \$75. Though project clients are not expected to fully follow the model, not all clients see it that way. For example, clients in Kork Trom village thought they were expected to invest the same amount as the model garden, which is beyond their affordability.⁸¹ One participant stated that without future support from the project to pay for materials (e.g. construction materials, pesticide sprayer, compost container), her family would not be able to afford these things. Some client households are getting around this and saving costs by using twigs, bamboos and plastic to make fences and trellises; however, natural materials are not always available. Cash spending by those who have completed the training on garden establishment and seedling preparation ranged between US \$5 and \$15. Some activities are also more expensive and have resulted in low application rates among the clients. For example, in Prey Toteng village, less than half of the cluster members have applied composting techniques due to high associated costs: “*Only 3-4 members have made dry and liquid compost. Those who haven’t tried it said it is because they don’t have enough inputs, and are too busy. They need a bamboo cage for dry compost, which costs 30,000 Riel, and a concrete container for liquid compost, which costs 40,000 Riel. Altogether this costs around \$20. They don’t have the money to buy these materials.*”⁸² Yet many respondents, particularly those who still have to complete all the training, have not envisaged the full cost of investing in the project gardens.

Getting access to vegetable seeds of good quality is another concern flagged by half of the respondents. One respondent stated: “*It will be difficult obtaining seeds, because we cannot get the seeds from our plants. We will buy seeds, but don’t know where. Maybe the local market.*”⁸³ Another expressed that “*without the project support, I will just stop growing vegetables.*”⁸⁴

⁷⁶ PP-SSI-2-2F

⁷⁷ HN-SSI-5-1M

⁷⁸ PP-SSI-5-2F, PP-SSI-1-2F

⁷⁹ PP-SSI-5-3F

⁸⁰ PP-SSI-2-2F

⁸¹ FGD-Incept-3

⁸² FGD-2

⁸³ PP-SSI-5-3F

⁸⁴ PP-SSI-5-1F

This concern might not be an issue in the future because the project is actively in the process of enhancing seed distribution networks with private seed companies and input supply shops and examining the prospects of micro seed distribution businesses with selected clients.

The study argues that the clients are well aware of the challenges to sustaining the home gardens, but less able to address them. Some of them have tried local solutions such as manually removing pests or storing water in different ways, but these are not effective and are labor intensive. Some have avoided making investments in the gardens. Many of them expect support from the project. This dependent attitude spells trouble for the sustainability of the home garden. It is also found that there is a lack of space for the clients to voice their concerns and discuss actions collectively. This issue is discussed further in the following section.

6.3 Collective voices and actions

This section examines the possibility for clients to collaborate and work together in home gardens by understanding their experience and insights regarding group membership.

Many respondents were not part of any existing groups, and expressed their interest in establishing a home gardens group to learn from each other. A male respondent said: *“I prefer to work individually on the garden, but I like the idea of getting together with other clients to discuss and share experiences.”*⁸⁵ The respondents expressed an interest in a group that supports collective production of seedlings and the selling of surplus produce. A female respondent stated that *“I like to work individually, but also am interested in working in a group that can help sell surplus produce, though I have never been in any group before.”*⁸⁶ Currently, much of the surplus vegetables are shared for free within the communities.

Despite a general interest in establishing the home garden group, female respondents are concerned about time constraint, with many commenting that people generally prefer to work individually and would have little time to join a group. Meanwhile, their male peers tended to offer a leading role in the group. One man said that *“I am confident that I could offer training to others.”*⁸⁷ Another respondent stated that: *“I would be willing to be responsible for contacting seed companies for the group, as I would really like good seeds.”*⁸⁸

A disinterest in labor sharing was also highlighted. One respondent said: *“I am not sure about if clients in my cluster are willing to help each other. Some clients are not so committed. They do not attend training because they are busy with other things. Also labor has become commercialized (30.000 –*

⁸⁵ HN-SSI-5-2M

⁸⁶ HN-SSI-2-1MF

⁸⁷ HN-SSI-2-2MF

⁸⁸ PP-HN-SSI-4-2FM

35.000 R/day), so they stop exchanging labor.”⁸⁹ Low self-confidence was also seen as a hindrance to women’s participation in the group activity. One woman stated that *“I prefer to work individually because I’m worried that I might be embarrassed for not following the technical requirement...I am reluctant to ask for help.”*⁹⁰

Some were interested in the possibility of gathering and channeling requests to the trainers, something which is currently lacking. In response to the question regarding whether they should take part in planning a training, a respondent said: *“We would like to discuss ideas for training, for example on pest management. It would be good to discuss these with each other, and come up with common requests to propose to the trainer.”*⁹¹

In general, project clients supported the idea of establishing a group to support work on the home garden, particularly a group that supports collective production of seedlings and selling of surplus produce.

6.4 Power and gender relations embedded in the project approach

The development approach of addressing nutritional deficiency through a home garden project is influenced by pervasive customary norms and expectations on women’s reproductive role and livelihoods, such as family food provision, taking care of children, elders and sick people, and being in charge of subsistence crops. By default, women have become the project’s targeted group. In the HG project, 82% of the project clients are women. Efforts to increase women’s knowledge and skills relating to home gardens and improved family nutrition are likely to enable them to better perform in their traditional domain rather than challenging unequal gender roles. For instance, they do not transform women’s awareness on why these roles have been assigned to them in the first place, and whether they can exercise choice over taking up such roles, or how and whether they have the necessary resources to implement and sustain the project. There is some evidence that women have gained confidence in acquiring knowledge and being able to influence practices. The project should recognize and promote such empowering instances to promote systematic change in social perceptions of women’s abilities.

The study found that the technology transfer methods used by project partners and the pressure to rapidly scale up the program do not accommodate participatory processes – a prerequisite for empowerment. The predetermined criteria for selecting clients do not require women to negotiate for reallocation of household investment, hence do not create opportunities for women to negotiate and gain more control over household resources (as discussed in section 6.1), particularly in the situation of competing resources. Furthermore, the selection of project clients, which is made by staff of the implementing NGOs and occasionally in consultation with local leaders, has reinforced

⁸⁹ HN-SSI-2-2MF

⁹⁰ HN-SSI-5-3F

⁹¹ PP-HN-SSI-4-2FM

the mindset that project clients are passive recipients of development assistance. Section 6.2 discusses evidence of clients passively waiting for technical instruction from visiting trainers, and some respondents⁹² had difficulty in articulating recommendations to the project to address their problems in applying knowledge and sustaining the project gardens. In one example, the study team witnessed an incident where a CBT forgot to invite the clients in his cluster to attend a training. During the group discussion with those who missed the training, we asked them how they would like to address the problem, and whether they would like to be consulted so that future project training and interventions better fit their needs. The respondents replied: “*it’s up to the project.*”⁹³

To date, project interventions – i.e. demonstration gardens, training and garden-based technical assistance – have served the purpose of transferring new knowledge to individual clients, but have not built on clients’ existing knowledge on, for example, climate or soil and water conditions, which would enhance their self-esteem and address practical challenges faced by the clients (as discussed in section 6.2.). Technical support, delivered in a hands-on manner, could be improved by employing participatory methods, to create a platform that would allow the clients to exchange their experiences and concerns, to discuss solutions and to channel their requests to the project team. The presence of such a platform is critical for individual clients to express themselves, voice their needs and concerns, and enhance their social network and collective power, which are essential to empowerment as well as the sustainability of the project gardens.

Finally, it is important to recognize the difference between the project’s objective of improving nutrition and client aspirations for commercial gardens and chemical-free vegetables for daily consumption. Accommodating client aspirations for the home gardens is critical to empowerment processes.

⁹² PP-SSI-2-2F, PP-SSI-3-1M, PP-SSI-1-1F

⁹³ FGD-Incept-1

PART 3: CONCLUSIONS

VII. Conclusions

Home gardens can contribute to improving both nutritional and economic outcomes at household level if project clients are empowered throughout the processes of project implementation.

Home gardens play a significant role in the livelihood portfolios of women due to their responsibility over family food provision, although home gardens are not one of the key income sources in household economies. Project clients are not motivated by nutritional outcomes when they enroll in the project, but more by opportunities for generating extra income and having a clean food source that both prevents sickness from contaminated vegetables and saves family spending on food and medical care. Understanding the difference between the project's goals and the clients' aspirations, and accommodating clients' aspirations for the home gardens, is critical to the sustainability of home gardens and the empowerment processes.

Although home gardens are traditionally perceived as a women's domain, men have also become involved in HG project activities. Gender division of labor in home gardens is not rigid. Nevertheless, men tend to take on tasks considered as more "heavy" work mostly associated with home garden establishment, while women take on the "lighter" tasks related to planting, weeding, fertilizer application and other daily garden tending tasks. There are cases in which women and men in client households perform the tasks that are traditionally perceived as the responsibility of the opposite sex. Women believe that they do not receive as much appreciation when they take on additional responsibilities in the absence of their husbands, while men think they have received more recognition and appreciation for helping their wives. The study argues that gender and social norms are reinterpreted to justify and value men's engagement in the unconventional domain, i.e. home garden. The participation of men in the home garden project has reinforced the positive attributes of men's identities as knowledgeable, hardworking and supportive husbands, but does not necessarily indicate a change in gender power relations.

The study found gendered roles and stereotypes relating to the capacity of women and men in the role of providing technical support have influenced the preference over who is sought for advice on home gardens. Project clients reported feeling less comfortable contacting women trainers as they are perceived as being busier. In addition, there is a perception that women trainers may not be as capable or comfortable in doing all the tasks required as a trainer – for example tasks considered as "dirty" or "heavy". The project could aim to challenge this stereotype in the coming phase.

The study found that the HG project does not require serious negotiation between husband and wife and the power of women in making the decisions in the project might not be an indication

of improved status, but linked to women performing their “duties” in their traditional domain. The study argues that, while the predetermined criteria for selecting project clients such as households with availability of land for home gardens and accessibility to water source might ensure the viability of the project gardens, the condition of having available resources does not require women to negotiate for reallocation of household investment – yet these are opportunities for enhancing women’s capacity in gaining more control over household resources, particularly in situations of competing resources and priorities.

The study draws attention to creating platforms such as periodic client meetings and interactive sections between clients and other project stakeholders to discuss technical challenges, channel their concerns and request supports from relevant stakeholders. Those challenges include water-related issues, pest and disease management, cash investment, sourcing good quality seeds, and retention of knowledge. Such platforms should promote local solutions and collective action to address identified challenges that ultimately increase self-reliance and solidarity among clients and community members. Furthermore, technical support should be delivered in participatory ways that dialogue with context-specific knowledge and experience of clients on soil, water, weather variation, etc.

The approach of addressing nutritional deficiency through home gardens is influenced by pervasive customary norms and expectations on women’s reproductive roles and livelihoods. Empowering women in their traditional domain requires commitments of resources such as finance, expertise and participatory processes that enhance women’s self-esteem and assertiveness to negotiate for their interests. For instance, gender-sensitive technical training should enable participants to question their socially assigned gender roles, to recognize the value of women’s unpaid domestic and caring work, to exercise choices, and engage men in reproductive chores. Cases of improving self-confidence by acquiring new knowledge and skills acquired should be fully recognized and promoted by the HG project to generate more pervasive change in social perceptions of women’s abilities in and beyond the project.

VIII. Recommendations

7.1 Pathways toward empowerment and gender equality via home gardens

Empowerment is the process of gaining the ability to make choices in a context where such choices have been previously denied (Kabeer, 1999), and which is an outcome of unequal relations of gender and power. As such, empowerment is context-specific. What is considered empowering in one context might not be relevant in another (Oxaal & Baden, 1997). Empowerment should not be simply understood as decision-making. It must include the process of recognizing one's own ability and entitlement to occupy decision-making spaces (Rowlands, 1995). In other words, empowerment is a “bottom-up” process through which women empower themselves by transforming gender inequality.

Taking into account the home garden project's targets and its scaling-out strategy to target up to 8,000 individuals in three years, increasing women's access to and control over productive resources – a common strategy for empowering women – is not relevant in this project. The project should instead focus on transforming social norms on unequal gender roles and stereotypes in home garden and nutrition activities, and power dynamics among project stakeholders, specifically as follows:

- A. Transforming social norms on unequal gender roles and stereotypes in home garden and nutrition activities:
 - A.1 Changing the gender discourse on home garden, i.e. shared roles and equal benefits, by:
 - A.1.1. Targeting households instead of individuals, and promoting the role of men and other family members in the home garden project.
 - A.1.2. Developing key communication messages⁹⁴ on gender equality to be consistently promoted in all project activities such as client engagement process, technical support, and regular monitoring.
 - A.1.3. Sensitizing NGO partners on empowerment pathways and supporting them to integrate an empowerment framework into their work plan and M&E systems.

⁹⁴ Examples of key communication messages: 1) Home gardens improve family health by providing nutritious, healthy, and safe vegetables; 2) Home gardens contribute to family economy by saving costs for food and medical care; 3) Both women and men play important roles in nurturing a healthy family.

- A.2 Challenging gender stereotypes and enhancing self-esteem of women and men by:
 - A.2.1. Facilitating clients to develop and implement gender action plans to address gender issues and stereotypes and to engage men in home garden and nutrition activities.
 - A.2.2. Identifying and promoting the capacity of women and men in performing unconventional roles in the home gardens during monitoring visits, client meetings, and training events; and by organizing public events to highlight best practices on gender equality. This will not only contest gender stereotypes, but also boost the pride and self-esteem of clients.
 - A.2.3. Documenting stories of change to share with development partners.
 - A.2.4. Building capacity of NGO partners on facilitating and monitoring gender action plans.
- A.3 Changing gender roles in the reproductive sphere (relating to nutrition)
 - A.3.1. Promoting social values relating to Cambodian “harmonized families” to engage and promote men’s role in household nutrition during monitoring visits, client meetings, training sessions and at other public events.
- B. Transforming power-relations between the project holder and the clients through meaningful participatory planning and implementation processes, for instance:
 - B.1 Facilitating participatory client engagement and selection processes; ensuring that potential clients understand the resources required to establish a home garden (such as labor, cash investment and other inputs); and discussing alternative solutions in case there is a concern regarding resource constraints (such as lack of locally available materials, shared labor, or other collaborative activities). Top-down selection of clients should be avoided.
 - B.2 Creating platforms such as periodic client meetings and interactive sessions between clients and other project stakeholders to discuss technical challenges, exchange experiences, and request support from relevant stakeholders. At the same time, facilitating the identification of leadership on different activities such as representing and negotiating for clients’ interests, exchanging experiences, purchasing seeds and producing seedlings, and so on. Such platforms should promote local solutions and collective action to address identified challenges that ultimately increase self-reliance and solidarity among clients and community members.

- B.3 Delivering technical support in participatory ways that dialogue with context-specific knowledge and experience of clients on soil, water, and weather variation to help improve clients' self-confidence and retention of knowledge.
- B.4 Improving monitoring mechanisms that capture and address concerns from clients and NGO partners, and communicate positive changes in gender roles and capacity (linking to recommendation A2 and A3).

Measuring empowerment: The project should revise its monitoring and evaluation plan to ensure the timely capture of and to communicate positive changes in gender roles and capacity. It is important to note that the client clusters are only the vehicle for individual clients to gain the ability to express opinions and mobilize support to address their problems and/or interests from the project gardens. Therefore, measuring empowerment in this project is about clients' ability to negotiate for their needs and interests and exercise collective power. For instance:

- the number of requests sent by clusters that have been responded to by the project
- the number of collective action events that have been organized

As the study team outlines various pathways for transforming gender and power relations in the project, we would flag a reality that is well-framed by Cornwall & Rivas (2015) that *“Empowerment, in short, is not something that can be rolled out like a motorway over any terrain with predictable outcomes. Its very nature is something more contingent and contextual, and ultimately far less predictable, than allowed for by development agencies' quick fix solutions.”*

7.2 Implications on the project's operational approach and capacity development for the project teams

a. Implications of the operational approach

Empowerment does not happen as a side-effect of development interventions but is the result of deliberate efforts that aim to enhance the voice and the influence of the targeted groups in the project planning and implementation, and transform norms and practices that reinforce or reproduce unequal power relations between the targeted groups and other project stakeholders. The home garden project should identify empowerment pathways that implementers can commit resources to, and integrate them into the project objectives and operational plans.

Local NGOs play a critical role as implementing partners in the HG project. They should be sensitive to gender and power relations in order to facilitate clients' voice and collective action. For this reason, the TOR for implementing partner NGOs should be revised to capture their role as facilitators of collective action. Some local partners of the project already have experience in building collective power (e.g. READA) that the project should capitalize on.

The project's monitoring, evaluation and learning (MEL) system should be updated to capture changes in capacity of women and men in client households, their gender roles, and gender power relations at family and community levels. Positive changes should be celebrated publicly to reinforce clients' self-esteem and contest gender stereotypes. The MEL system should be able to quickly respond to clients' problems and concerns that would in return enhance clients' confidence in interacting with the project team. The MEL should serve as a platform for cross-learning on the promotion of gender equality and empowerment among client clusters and implementing NGOs.

b. Capacity development for implementing partners

The following are key knowledge and capacity areas that the project implementers should promote to effectively facilitate the empowerment pathways:

- Empowerment in the home garden project: i) to explore power dynamics among stakeholders in the project, and their implications to the sustainability of the home gardens and the empowerment of the clients; ii) to envisage changes in power relations among stakeholders in the project; and iii) to develop a capacity building plan for the project partners to accommodate the changes.
- Gender in the home garden project: 1) to explore how gender norms and stereotypes affect women and men in client households; and ii) to discuss how to facilitate the development of gender action plans with client clusters.
- Gender-responsive monitoring and communication: how to capture and promote changes in the gender roles and gender power relations at family and community levels.

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Annex 1: Matrix of the research questions

Variables	Research questions	Information/data sets	Data sources	Data collection technique
	1. How does home gardening fit into women's and men's livelihood portfolios and aspirations?			
<i>LLH strategies</i>	1.1. What are women and men's livelihoods?	Livelihood sources Seasonality of each livelihood Labor allocation and mobility	Women and men as current and potential clients	Livelihood portfolio and Agency survey (LAS); Semi-structured interviews with current clients (SSI)
<i>Position of home gardens</i>	1.2. What is the importance and usefulness of home gardening within their portfolio of livelihoods at the household level?	Ranking the importance of home gardens in household livelihoods by women and men Expected uses of home gardens	Women and men as current and potential clients	LAS; SSI; FGD
<i>Motivation</i>	1.3. Why do women and men (want to) participate in home garden project?	Reasons to join the home gardens project disaggregated by sex	Women and men as current and potential clients	LAS; SSI, FGD
<i>Aspiration</i>	1.4. What do women and men expect from home garden for?	Expectations from home gardens disaggregated by sex	Women and men as current and potential clients	LAS; SSI; FGD
<i>Self-esteem</i>	1.5. How gender roles and norms affect participation of women and men in home gardens?	Stereotypes regarding women's and men's roles in home garden	Women and men as current and potential clients	FGD; SSI

		Women's and men's experience and insights into conforming and/or contesting gender roles in home garden activities.		
<i>Constraints</i>	1.6. What are women's and men's constraints when they participating in home gardens?	Problems faced by women and men in investing and maintaining home gardens particularly in competing with other livelihoods (e.g. labor allocation, cash investment) Problems faced by women and men in accessing and acquiring technical supports; and application of new techniques	Current clients	FGD; SSI
<i>Constraint Priorities</i>	1.7. How might participating in home gardens constrain men and women from achieving their other aspirations?	Priorities of female and male clients in 5 year time; Compromised priorities and resources of female and male clients for home gardens;	Female and male clients	SSI
	2. What are the perceptions and priorities of women and men on the health and nutritional status of children and other household members, and how do they seek ways to address nutritional deficiencies?			
	2.1. What are the perceptions of women and men on the nutritional status of children and other household members?	Perceptions of women and men about health status, and key factors that affect health status of their family members The rank of nutritional deficiencies amongst those factors that affect health status of their family members	Women and men as existing and potential clients	LAS SSI
	2.2. How confident are they with their existing knowledge on nutrition?	Respondent's existing/indigenous knowledge on health or nutritional benefits of vegetables Respondent's confidence in the sources and the validity of their knowledge	Women and men as existing and potential clients	LAS SSI
	2.3. How do women and men seek ways to address nutritional deficiencies?	Roles and activities of women and men in address nutritional deficiencies	Women and men as existing and potential clients	LAS; SSI

			NOURISH's SBCC research	Secondary data;
	3. How will home gardening serve to address the nutritional deficiencies of household members in ways that empower women?			
<i>Collective power</i>	3.1. What are social values and experiences of women and men on collective actions?	Positive and negative experiences of women and men in formal and/or informal groups and organizations Women's and men's perceived benefits and risks of working together in home gardens	Women and men as existing and potential clients	LAS; FDGs
	3.2. What is the mechanism that would accommodate the interests of female and male clients on home gardens?	Perspectives of women and men on how to organize technical supports and client's clusters so they can take more active roles in home gardening and decision-making; and how home gardens project could benefit more households in their communities	Female and male clients of different age groups	FGD
	3.3. In which way can male members be more engaged in home gardening and addressing nutritional deficiencies?	Perspectives of women and men on how to share responsibilities in addressing nutritional deficiencies	Women and men as existing and potential clients	FGD; SSI

