



Value Chains for Rural Development Social and Gender Assessment

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Table of Contents

Acronyms.....	2
1 Project Objectives	4
2 Research Approach	4
3 Demographic Overview of Shan State	5
3.1 Education and poverty	5
3.2 Ethnic groups	6
3.3 Migration patterns	6
3.3.1 Domestic migration.....	6
3.3.2 Internal displacement	7
4 Legal Framework and Land Tenure.....	8
4.1 Land ownership.....	9
5 Gender and Ethnic Aspects in Agriculture.....	10
5.1 Ethnic minorities	11
6 Agriculture Overview and Trends	12
6.1 Major crops.....	12
6.2 Seasonality of crops	15
6.3 Livestock	15
6.4 Constraints.....	16
7 Recommendations to Strengthen Gender and Social Inclusion in Selected Value Chains.....	17
7.1 Coffee	17
7.2 Soybean	18
7.3 Cross-cutting Recommendations for Gender and Social Inclusion in Value Chains for Rural Development	19
Bibliography.....	25
Appendix I: Organizational Mapping	27
Appendix II: Recommendations for Further Research	30

List of Tables

Table 1. Southern Shan State, population and area, by township and self-administered areas.....	5
Table 2. Shan State major crops (by acreage), 2010-11.....	12
Table 3. Shan State major crops (by share of Myanmar total acreage), 2010-11	13
Table 4. Fastest-expanding crops (acres sown), 2004-05 to 2010-11.....	14
Table 5. Registered private food industry businesses in Shan State, 2012	15
Table 6. Constraints and factors limiting household crop production	16
Table 7. Men and women’s primary roles in coffee production	18
Table 8. Business case and development case to strengthen women’s opportunities.....	20
Table 9. Scope of Indicative Women’s Leadership Training for Farmers’ Groups.....	22

Acronyms

ADB	Asian Development Bank
AES	Agricultural Extension Services
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
ESCAP	United Nations Commission for Asia and the Pacific
FAO	Food and Agriculture Organization of the United Nations
FESR	Framework of Economic and Social Reforms
FFS	Farmer Field Schools
GDP	Gross Domestic Product
IFPRI	International Food Policy Research Institute
IHLCA	Integrated Household Living Conditions Assessment
LIFT	Livelihoods and Food Security Trust Fund
MAA	Myanmar Agro Action
MEAS	Modernizing Extension and Advisory Services
MFFVPEA	Myanmar Fruit, Flower, Vegetable, Producer & Exporter Association
MFVP	Myanmar Fruit and Vegetable Producer Association
MNPED	Ministry of National Planning and Economic Development
NLUP	National Land Use Policy
O&M	Operations and Management
PWU	Pa-O Women's Union
SAZ	Self-Administered Zones
SWAN	Shan Women's Action Network
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
USAID	United States Agency for International Development
VFV Law	Vacant, Fallow and Virgin Lands Management Law
WHO	World Health Organization
WLB	Women's League of Burma

1 Project Objectives

Emerging Markets Consulting conducted a Social and Gender Assessment as part of the USAID-funded Value Chains for Rural Development project (hereafter referred to as the Value Chains project). The Value Chains project integrates three objectives: 1) increasing productivity and profitability of small farm production systems for targeted value chains; 2) strengthening linkages and competitiveness of market systems for targeted value chain products; and 3) increasing private sector engagement in and support to marketing and processing of targeted value chain products as well as other key opportunities. The Value Chains project will work across key value chains, initially in Southern Shan State, with anticipated expansion to include the Dry Zone.

This assessment provides an overview of non-economic constraints for value chain development in the context of integrated farming systems most commonly practiced in Southern Shan. Particular attention is paid to roles, constraints, and opportunities for women and ethnic minorities in the target area. In addition, this report includes a set of targeted recommendations for active interventions aimed at overcoming value chain constraints and supporting gender and ethnic inclusion in the project.

2 Research Approach

This assessment is based on secondary data sources and consists of two phases.

The first phase consisted of extensive literature and document review on agriculture and social conditions in Shan State, including gender and ethnic minorities, to identify most promising value chains for further study, important gender aspects of agricultural production in the target area, and non-economic factors that could influence these value chains. In addition, team members conducted an overview of recent datasets on agriculture and socioeconomic conditions in Shan to understand what information is available.

The second phase focused on more detailed analysis of several value chains in Southern Shan to better understand how crop and non-crop agricultural activities interact with each other and whether their complementarity could be capitalized upon in developing interventions for the project. Where possible, the research team used previous experience in Myanmar and other countries in the region to extrapolate information that is not available in existing secondary sources.

Taking into consideration field-based assessments and other consultancies Winrock International previously commissioned for the project in Myanmar, this report aims to complement but not restate the findings and recommendations from previous reports and presentations.

There is a severe lack of data in Myanmar in all areas of interest for this study, including agricultural production, gender equality, ethnography, and other relevant subjects. This is a serious limitation for any desk research on the national-level socioeconomic situation in Myanmar, and even more so for localized studies. There is almost no historic data for any major economic and social indicators, such as Gross Domestic Product (GDP). This report synthesizes the latest available information from a variety of sources, taking into account limitations that are associated with comparing different data collected with different methodologies.

3 Demographic Overview of Shan State

3.1 Education and poverty

According to the provisional results of the 2014 Population Census, the population of Shan State is approximately 5.8 million people, with a fairly balanced sex ratio (almost equal number of males and females). An estimated 76% of the population lives in rural areas. The average household size in Shan State is higher than the national average, with 4.7 members per household.¹ Women head about 20% of households, although many more women are *de facto* household heads due to increased seasonal and long-term job migration by their husbands.

Table 1. Southern Shan State, population and area, by township and self-administered areas

District	Self-administered area	Township	# urban wards	# village tracts	Population	Total area (km ²)	Density (persons/km ²)
Taunggyi		Taunggyi	51	24	437,018	2,014	217.0
		Nyaung Shwe	8	35	188,602	1,482	127.3
		Lawksawk	14	18	164,542	5,162	31.9
		Pekon	7	12	103,665	2,079	49.9
		Kalaw	23	25	186,019	1,460	127.4
	Danu SAZ	Pindaya	12	27	79,846	630	126.7
		Ywangan	3	29	82,400	2,989	27.6
	Pa-O SAZ	Hopong	6	22	111,962	2,934	38.2
		Hsihseng	6	13	152,755	2,077	73.5
		Pinlaung	13	25	192,277	3,405	56.5
Loilen		Loilen	8	19	124,411	1,329	93.6
		Laihka	4	19	49,586	2,813	17.6
		Nansang	11	20	116,634	3,693	31.6
		Kunhing	11	14	53,478	2,767	19.3
		Kyethi	11	31	74,215	3,765	19.7
		Mongkaing	5	24	74,233	3,797	19.6
		Mongshu	7	17	74,584	1,652	43.9
Langkho		Langkho	11	14	40,160	5,224	7.7
		Mongnai	12	14	39,430	3,235	12.2
		Mawkmai	7	8	33,840	2,454	13.8
		Mongpan	4	10	25,845	2,723	9.5
Total			234	420	2,403,475	57,684	41.7

According to United Nations Development Programme (UNDP) data, the poverty incidence in Shan State has fallen from 46.1% in 2005 to 33.1% in 2010, with Southern Shan having the lowest incidence at 25.2%. Interestingly, the 2009-2010 Integrated Household Living Conditions Assessment (IHLCA) found that there appears to be an inverse relationship between poverty and gender on the national level, i.e., female-headed households were found less likely to be poor. While this finding varied across ethnic states, in Southern Shan less than 10% of female-headed households were reported to be poor and just over 15% were reported to be non-poor (adapted IHLCA data; USAID 2013). The World Health Organization (WHO) estimated that approximately 42% of children under 5 in Southern Shan were stunted in 2009-2010 – one of the highest levels of malnutrition in Southeast Asia (USAID 2013).

Available data indicate a high level of primary school enrollment for both males and females and high rates of adult literacy in Myanmar. Adult literacy is 93%, with rates of 95% for men and 91% for women². United Nations Children’s Fund (UNICEF) data show that at a national level, 88% of primary-age children are enrolled in school, while the rate is higher in Southern Shan State at 92%. However, only 50-60% of enrolled students complete their primary education. Also, the net enrollment rates at secondary level are significantly lower,

¹ Chin and Kachin states have the largest average households with 5.1 members.

² Source: https://www.cia.gov/library/publications/the-world-factbook/fields/print_2103.html

averaging around 50%. According to the IHLCA data, in 2009-2010 just under 20% of household heads in Southern Shan had no education and 42.7% had only completed primary school (USAID 2013).

The data from the last nationally representative Fertility and Reproductive Health Survey from 2007 indicated that the proportions of females who have lower and upper secondary education were lower than that of males (UNFPA 2009)³. However, the percentages of females who have university education were higher than those of males: 7% vs. 6% for university education. Overall, the number of ever-married women aged 15-49 with no education decreased from 22% in 2001 to 14% in 2007. The proportion of ever-married women who have lower secondary and higher education increased from 25% in 2001 to 33% in 2007. The report stated that the gender gap in educational attainment was almost negligible in younger age cohorts, but increased steadily with age. For example, the proportion of females with less than Standard 1 education (not completed primary school) increased from 6% of 10-14 year olds to 31% in the oldest age group in 2007 (65 and older). However, this increase was less dramatic among males in the same age cohorts. This finding suggested while there had been improvements in educational attainment for both men and women, they were especially gainful for women (UNFPA 2009).

The same survey found that women with fewer children had higher educational attainment: about 30% of women with no children and 28% of women with one child had either high school or university education, compared with only 4% of those who had four children or more (UNFPA 2009).

The 2013 USAID background paper on Food and Nutrition Security in Myanmar provides an overview of more recent analyses of the gender gap in education and shows that this relationship involved several seeming contradictions (USAID 2013). While the perception of lower value placed on girls' education is still reported in studies, UNFPA's 2010 assessment showed that Myanmar has achieved gender parity of enrollment in both primary and secondary education and that there are more women than men at the university level (UNFPA 2010). In fact, there are more women than men, including among faculty, at Myanmar's only agriculture-focused university – Yezin Agricultural University (USAID 2013).

At the same time, official statistics show that rural women and ethnic minorities do not appear to enjoy the same level of status as educated Bamar⁴ females living in urban areas. Reportedly, nearly three times the number of females are illiterate compared to males: 11% and 4% respectively (LIFT 2012b).

3.2 Ethnic groups

Shan state is ethnically diverse. The Shan people are a Tai ethnic group, closely related to Tai groups in Thailand and Lao PDR. They account for about 9% of the total population of Myanmar and are the second largest ethnic group in the country, after Bamar. In Southern Shan, prominent ethnic groups include the Pa-O, the second largest ethnic group in the state, and the Danu, Intha, Tuangyo, Padaung, and Lisu. The Pa-O and Danu groups have their own Self-Administered Zones (SAZ) within the state.

The Wa, Kokang, Palaung (also called Ta'ang), Naga, and Jingpho (or Kachin) predominantly live in the Northern region, while the Akha, Ann, and Lahu - in the Eastern region. Throughout the state, there are Bamar (mostly in the urban centers), Kachin and Karen groups, as well as Chinese, Indians, and others.

3.3 Migration patterns

3.3.1 Domestic migration

Shan state is also a major destination for domestic migration; according to the recent UNFPA study on internal migration trends in Myanmar⁵, it is the fourth most popular destination in the country, after Yangon,

³ Formal education in Myanmar is based on a three-tier system: 5 years of primary school education, 4 years of lower secondary education, and 2 years of upper secondary education. Graduates of upper secondary school may then further their education at a university or a technical school.

⁴ The largest ethnic group in Myanmar.

⁵ The study was based on secondary data from three Fertility and Reproductive Health Surveys (1991, 2001, and 2007).

Kayah, and Kachin states (UNFPA 2013). In 2007 (the latest data available), the in-migration rate of Shan State was 75 migrants per thousand people. Overall, Shan State has consistently had a positive net migration rate since 1991, meaning that more people move to the state than leave it. This finding was consistent for both lifetime migration (permanent relocation) and recent migration (within five years previous to data collection).

Moreover, the data showed that Shan State had a higher percentage of males as incoming migrants, and more females than males exiting the state. Considering that the nearby Dry Zone is a significant source of domestic migrants, the Mandalay-Shan migration stream was the third largest in the country in 2007 and was clearly dominated by males⁶. Likewise, other regions (Magway, Sagaing, Bago, and Yangon) were also found to send more males to Shan than females. While the exact reasons for this are unclear since no formative research has been conducted on this topic, UNFPA suggested that there might be several factors contributing to the prevalence of male migrants to Shan State. For example, geographic characteristics of Shan, especially in the border areas, might make it difficult for female migrants to access, and some notable job opportunities in Shan State, such as mine laborers, are considered to be more suitable for males (UNFPA 2013). However, as mentioned above, Shan State sent more females to other regions, including Yangon, Mandalay, and Kayah. Overall, the data showed that relatively less developed parts of the country, such as Shan, Mon, and Kachin states, were more likely to send female migrants to more developed regions like Yangon and Mandalay.

Both out-migration from rural areas in Shan State and influx of migrants from other parts of the country have implications for gender roles in agriculture, in particular the constraints that face women. Based on observations in Southeast Asia, when the male head or other adult males in the household migrate to urban areas or neighboring countries in search of higher-paid factory or construction work, women are left with greater labor burdens to cultivate the household's agricultural land, as well as their ongoing household and reproductive responsibilities. Nonetheless, the men tend to return during or just after the harvest in order to control the marketing and proceeds of cash crops. As a result, women may not be able to reap any control over or benefits from the products of their extra labor.

3.3.2 Internal displacement

Shan State presents a complex case for migration, both internal and international. While decades of war have pushed significant numbers of Shan residents out of the state and even across the border to China and Thailand, it is difficult to estimate how many people currently live abroad and may be considering returning in the future. Unlike refugees from Karen state, Shan refugees only have one known settlement in Thailand⁷. However, based on available, albeit limited data it appears there are more Shan residents that are internally displaced than those that crossed the border. Villagers in Southern Shan State lived in an on-and-off conflict environment for decades, which led to several waves of population displacement, including forced relocation by the government in 1996-98. In 2003, Shan Human Rights Foundation estimated that more than 56,000 households from approximately 1,500 villages had been relocated in Southern Shan between 1996 and 1998, which included Shan and Pa-O minorities (Risser 2003). The affected townships included Kunhing, Lai Hka, Mong Pan, Mong Hsu, Loilen, Hopong, and several others.

In 2004, The Border Consortium attempted to estimate the number of internally displaced persons (IDPs) in Eastern Myanmar, including Shan State, and compare it to the previous border-wide estimate from 2002. In Southern Shan, which was the site of active conflict at the time, the total number of IDPs decreased from 275,000 to just over 216,000 in 2004 by conservative estimate (TBC 2004). According to the assessment, IDPs

⁶ It should be noted that Mandalay is predominantly ethnic Bamar (Burmese).

⁷ The Border Consortium supports a small camp in Wieng Heng, Chiang Mai province that provides shelter to around 540 displaced people from Shan State.

in Southern Shan relocated to relatively safer areas that could not provide sustainable solutions due to lack of suitable agricultural land and high population density⁸.

In 2013, The Border Consortium conducted another assessment of displacement in Eastern Myanmar and concluded that while displacement rates had slowed for south eastern Myanmar, they actually increased in the west and north, including Northern Shan State, since the current government took office (TBC 2013). It is still unclear how many families have been able to return to their home villages in Southern Shan and reclaim their land. However, some data on the total area of vacant land in Shan State is available and discussed in Section 4 with regard to the Vacant, Fallow and Virgin Lands Management Law (VFV Law).

4 Legal Framework and Land Tenure

Given the importance of agriculture for the economy of Myanmar, agricultural development has been a focal point of the government policy. The strategic direction of the policy is defined in the Framework of Economic and Social Reforms (FESR), which laid the foundation of sustainable and equitable development in Myanmar. The FESR spans a wide range of issues, including food security and agriculture development. In 2013, the Ministry of Livestock, Fisheries and Rural Development was commissioned with poverty alleviation and rural development in the country, while the Ministry of Agriculture and Irrigation is responsible for agricultural development specifically following the 20-Year Agricultural Development Plan (2011-2031).

In addition, the Department of Trade Promotion was established within the Ministry of Commerce in 2013 to promote export of agricultural commodities, including export of oil seeds and pulses, such as sesame and groundnut (JICA 2013). Trade of fertilizers and pesticides, previously under government control, has been liberalized and is now conducted by private firms, although government certification is still needed.

There are several laws and by-laws related to agricultural production and land, but their application is less than clear due in part to the relatively recent nature of some of the laws. Currently, at least ten agriculture-related laws are going through the revision process, including laws related to construction of irrigation systems.

In 2012, the Government enacted the Farmland Law and the Vacant, Fallow and Virgin Lands Management Law (VFV Law). Although the State maintains ownership of all land, the Farmland Law establishes land use rights through the issuance of a Land Rights Certificate that can be bought, sold, and transferred. The VFV Law identifies all lands classified as vacant, fallow or virgin as available for private sector development.

The full impact of this new legislative framework is not fully understood, but it is clear that the new laws are designed primarily to promote private sector investment in large-scale agriculture (Oberndorf 2012). The new laws provide weak protection for the rights of smallholder farmers in upland areas and for women. Land in shifting cultivation systems that is currently fallow can, under the legislation, be reclassified as wasteland and allocated by the government to commercial enterprises. The legislation does not explicitly recognize women's rights to register or inherit land, or to be granted land-use rights for VFV land. Moreover, these groups are vulnerable because they tend to have poor leverage, bargaining power and organizational capacity. Even in areas of permanent cultivation, land tenure security is tenuous as titling procedures are unclear, slow and subject to corruption; the government retains the right to rescind farmland use rights and to control farmers' crop choices, and there is no independent judicial review of grievances (Oberndorf 2012).

In 2014, the government disseminated a draft National Land Use Policy (NLUP) intended to provide a framework to guide the creation of a National Land Law and "harmonize" existing laws pertaining to land (Faxon 2015). The draft English-language version calls explicitly for equal rights in land tenure and land use

⁸ Since internal displacement was not properly documented, it is not entirely clear what the most common destinations were. Based on some anecdotal evidence, displaced villagers moved to the state capital Taunggyi and Hsi Hseng township in Southern Shan itself and remote forested areas elsewhere in the state, or crossed the border to Thailand and China (Risser 2003).

management between women and men. Despite including a reference to the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)⁹, the Burmese-language version omits all mention of women or gender with the exception of references to taxation on husbands and wives (Faxon 2015). Moreover, no women participated in the drafting of the NLUP; and women were under-represented among participants at the consultations.

Relevant to the Value Chains project is the seeming bias towards larger scale agriculture and how to support smallholder farmers now so they are able to plug into the larger value/supply chains rather than being left out. Given the comparable experience in other countries (Cambodia, Laos, Vietnam), accelerating the ability of smallholder farmers to sustainably capture value will be key.

4.1 Land ownership

Most crop production takes place on relatively small plots. According to the 2012 Livelihoods and Food Security Trust Fund (LIFT) Baseline Survey, the Hilly zone¹⁰, which includes Shan State, was significantly different from the rest of the country in terms of land ownership. For example, only 28% of respondent households owned land in the Delta/Coastal zone, but in the Hilly zone 74% did own land¹¹. IHLCA data confirm this finding, showing that the majority of households in hilly regions, such as Chin and Shan states, had access to land (USAID 2013).

However, for land-owning households in other zones (Central/Dry and Delta/Costal), the average size of their land holdings was larger than in the Hilly zone, where the majority of the respondents reported owning between 1-2 acres and could be considered “land poor.” Moreover, some landless respondents in Shan State revealed that while renting land was possible, only small plots were available (1-2 acres) and larger nearby areas had been leased to companies. According to the Department of Agricultural Planning data, in 2013 there were 65 companies with land concessions in Shan State – second highest in the country after Kachin State.

Landlessness and land poverty are conditions that affect both women and men, albeit in different ways according to their respective roles, responsibilities, and ability to take decisions regarding their lives. For example, a study in the Dry Zone found that 20% of female-headed households were landless compared with 6% of male-headed households (Oxfam 2014). In households with land, those headed by women had holdings that averaged 2.6 acres compared to average holdings of 4.4 acres in male-headed households.

In practice, it is more difficult for women to obtain title to land. As is common practice in the region, land inherited by women is often registered in the name of their husband. Government authorities often register land only in the name of the husband even when an application is made for title under joint spousal names. In consultations with women, they speak about land titling offices and courthouses as “male domains” that are intimidating to women (Faxon 2015).

Moreover, women frequently do not have knowledge of or information about land issues or the procedures for obtaining land title. Rural women are more likely than men to be illiterate or to have difficulty reading. Ethnic minority women may not be able to speak much less read Burmese.

Among ethnic minority groups in Myanmar, customary law and traditions favor male inheritance of land, and in most groups customary land inheritance is always male. Even in groups that recognize inheritance by

⁹ Myanmar is a signatory to CEDAW; however, the Gender Inequality Index, Gender related development index, and Gender Empowerment Measure have not yet been calculated due to inadequate gender statistics. Source: http://countryoffice.unfpa.org/myanmar/2009/11/11/1545/country_profile/

¹⁰ The Hilly zone was represented by 20 townships from across the country, with Shan State accounting for half of that number: 2 townships in Northern Shan and 8 in Southern Shan. Southern Shan households constituted 46% of all the respondents in the Hilly zone. As a result, it is possible to consider data for the zone as sufficiently representative of Southern Shan.

¹¹ This is similar to other data identifying 80% of households in Southern Shan State as landowners (UNDP 2013).

both women and men, giving land to daughters who might marry outside the community is often seen as a threat to the community (Faxon 2015).

In communities with high levels of male out-migration, women become *de facto* managers of household land holdings. However, upon the death of the absent husband, the land is most often inherited by his sons, his sons-in-law, his widow's new husband, his father or his brother, rather than his wife.

5 Gender and Ethnic Aspects in Agriculture

In Myanmar, the labor force participation rate is 78% overall, with rates of 82% for men and 75% for women¹². Based on data from the 2003 Agricultural Census, 71% of economically active people in rural areas in Myanmar are employed in agriculture, including 74% of men and 68% of women. The 2013 UNDP poverty assessment also found that male-headed households have landholdings that are 50% larger than those owned by female-headed households (UNDP 2013).

According to the 2012 LIFT Baseline Survey, the Hilly zone that includes Shan State differs from the rest of Myanmar with regard to female labor in agriculture¹³. While in the country in general more agricultural work was done by men than women, the situation was different in the Hilly zone townships. Specifically, the data indicate that women worked more in weeding and other activities related to the growing season, but less so in soil preparation and ploughing. This is likely explained by the fact that traditional rural Shan society is male-dominated, including in agricultural activities, and the man is considered to be the farmer while his wife is the unpaid additional labor. In Myanmar, the word for “farmer” has a male connotation. Women themselves, as well as men, consider that they are just “workers” or “casual labor”, not farmers (Faxon 2015). This view underlies to a major extent the secondary and undervalued role that women have traditionally played in the development of agricultural value chains, in respect particularly to access to and control of resources and decision-making in rural households.

Only one-third of farming households in hilly areas hired casual labor compared to more than 80% of households in the Dry Zone. In general, households hired women as casual labor more often than they hired men. In the hilly areas and the Dry Zone, approximately 50% more female than male casual laborers were hired. Despite legislation in Myanmar that guarantees equal wages for women and men, women's agricultural wages tend to be 70-80% of the rate paid to men, a factor that may influence the hiring of women.

Men also reported having attended agriculture-related vocational training courses more often than women. For example, in 2009-2012, 76.9% of male household members attended courses related to crop production, while only 20% of women reported having done so (Source: Ye Win, UNOPS-LIFT IT and Database Manager).

While it is clear that rural women are an integral part of household agricultural activities, there is little support and they frequently confront a range of constraints:

- Rural women face high levels of “time poverty”. Notwithstanding their paid or unpaid labor in crop production and other household economic activities, they must ensure the care of all household members including cooking, child care, care of the sick and elderly, cleaning, etc. As a consequence, time-use studies confirm that women work longer hours overall and have less recreation time and, often, less sleep than men (UNDP 2012).
- Rural women have very limited mobility. Societal norms in Myanmar discourage women from participating in activities outside their homes or in their communities. In addition, women frequently

¹² 2010 World Bank estimates. Note: Other sources have the female labor force participation rate as low as 50% (cf, JICA, 2013. Country Gender Profile, Republic of the Union of Myanmar, Final Report).

¹³ According to the LIFT data, 74% of households in the Hilly zone are engaged in farming.

do not have access to a vehicle or the money to use it, for example, to travel to agricultural extension or other training organized in another community.

- Rural women often have low levels of education and, as a consequence, low literacy and numeracy skills.
- Rural women are frequently assumed to be “uninterested in” or “not capable of” learning and adopting new technologies (UNDP 2012; FAO 1997; World Bank 2009). This is a view often put forward by men but, unfortunately one that also reflects many women’s perception of themselves. To some extent, women’s lower educational levels corroborate this view. However, ample international experience on the ground clearly demonstrates that women are fully capable of learning, adopting, and successfully using innovative new agricultural technologies.
- There is a strong gender bias in the delivery of agricultural extension services (IFPRI 2011; LIFT 2015). Agricultural extension services, where they exist, generally direct training to the household head who is most often a man (Oxfam 2014); and do not address women’s needs for training and technical assistance (Ashby; MEAS 2013). Most staff are male and may be unwilling or uncomfortable working with women due to cultural norms that discourage interactions between unrelated males and females as well as because of the belief that technical information should be imparted to men not women. The technical expertise of extension staff is frequently oriented to the interests and work that men do in the agriculture sector, and may not include information that is useful to women’s agricultural responsibilities, such as postharvest management, raising livestock, etc. The methods and delivery of extension services often do not take into consideration the time, mobility and literacy constraints of women.
- Finally, the National Strategic Plan for the Advancement of Women (2013-2022) does not include “agriculture” or “rural development” as one of the twelve priorities for intervention.

5.1 Ethnic minorities

Within the hilly region that is Shan State, ethnic groups have been traditionally located at different elevations, which in turn influence agricultural and associated social systems. The Shan tend to live in the valleys and tablelands. The Pa-O are concentrated along the banks of the Salween and the Intha live on the shores of Inle Lake. These lowland groups have tenured landholdings and practice permanent agriculture. The Pa-O, for instance, are renowned for cultivating the thanapet tree. Pa-O women use the leaves of the tree to make cheroots for local consumption and sale, as well as for wrapping herbs. Lowland communities also cultivate paddy rice and a range of vegetables and fruits that are sold in local and regional markets and, in the very southern part of the state, across the border in Thailand. Gender roles tend to be clearly delineated: men are viewed as farmers who manage crop cultivation while women are often only unpaid laborers; their primary responsibility is care of the family. Women’s control of productive activities is limited to ancillary activities such as raising livestock.

A recent gender assessment among ethnic minority groups in the Inle Lake region explored women’s empowerment in terms of their access to and control of resources and benefits related to agricultural activities (UNDP 2012). Resources included land, equipment, labor, cash, and education or technical training; benefits included outside income, asset ownership, education, and political power. The respondents from Intha, Pa-O, Danu, and Taung-yoe communities agreed that women and men generally share equal access to these resources and benefits. However, they were nearly unanimous in their assessment that women enjoy little if any control compared to men. In the Inle Lake study, the only benefit where women had equal control with men relates to basic needs such as food, clothing, and shelter.

The Palaung ethnic minority is known for their tea plantations in the mountains of Northern Shan State. Land tenure in upland areas has traditionally been regulated by local communities through a system of customary law, which today is not recognized by the government. Due to the labor demands of swidden agriculture, there are fewer distinctions in the responsibilities of men and women; all members are actively involved in household agricultural production. Upland ethnic groups live at varying elevations in the mountains where most practice swidden (slash and burn) agriculture - a system of rotated cultivated and fallow plots (FSWG

2011; Springate-Baginski 2013). This system (*taungya*) is based on rotating small plots of sloping land that are cultivated with those that are fallow. The field is cultivated with a mixture of staple crops such as rice, maize, or millet combined with a range of food crops. In 1-3 years when soil nutrients have been depleted, the plot is left fallow to allow regeneration of vegetation and trees that restore soil fertility. Traditionally, fallow periods were as long as 15 years. Currently in Myanmar, plots are fallow for only 4-6 years before they are again cultivated (FSWG 2011; Springate-Baginski 2013).

In Myanmar, the *taungya* system is managed through community-based, customary tenure institutions that are embedded in and vary depending on the social systems of different ethnic groups (FSWG 2011; Springate-Baginski 2013). Tenure systems may be collective, when all village lands are divided into plots with local leaders allocating those ready for cultivation to different households on an annual basis. Elsewhere, *taungya* land use rights are based on hereditary ownership, i.e., each household has rights to a set of plots and decides on their own which to cultivate. Alternatively, it may be a combination of both approaches, when cultivated land is held by individual households and forest land is managed collectively.

6 Agriculture Overview and Trends

Agriculture plays an important role in Myanmar's economy, accounting for 32% of GDP in 2011 (ADB 2014a). However, agricultural products – excluding wood and fisheries products – accounted for only 17% of official exports (ADB 2014a). There is considerable scope for growth in Myanmar's agricultural output, given low yields and much cultivable land lying fallow (ADB 2014a)¹⁴.

6.1 Major crops

Crop production accounts for about 80% of total agricultural income. Within the crop sector, rice dominates land use. Annually, paddy accounts for roughly half of all planted area, with that share rising to about 60% during the monsoon season and falling to around 40% in the winter and summer seasons when pulses become equally important. Oilseeds, dominated by sesame, account for over one quarter of cropped area during the monsoon season (USAID 2013). Myanmar has become the second-largest exporter of beans and pulses in the world (FAO 2011).

Table 2. Shan State major crops (by acreage), 2010-11

Crop	Acres sown in Shan State	Average annual growth 2004-05 – 2010-11	Share of Myanmar total, 2010-11
Paddy	1,541,807	3.3%	7.8%
Maize	425,128	2.5%	44.2%
Soy bean ("peboke")	216,512	3.4%	80.9%
Tea	190,221	1.6%	81.2%
Vegetables^a	180,096	4.8%	13.5%
Rubber	149,019	58.3%	12.0%
Groundnut (rain^b)	114,412	5.2%	12.0%
Fruits	95,644	5.2%	7.0%
Sugarcane	78,275	7.2%	20.9%
Pigeon pea ("pesingon")	67,202	0.1%	1.7%
Potato	55,259	1.5%	57.8%

a. Excluding potato and plantain.

b. Rainy season groundnut. Winter season groundnut is also grown, but acreage is much smaller, albeit increasing.

Source: MNPED 2011.

¹⁴ Rice yields are the second lowest in Asia, while total cultivated land has the potential to increase nearly 50%.

In Shan State specifically, due to different climatic conditions, the variety of crops is greater and includes rice, maize, pulses and beans, tea, fresh fruit, and vegetables as main crops (Table 2). There are also coffee and tobacco plantations. Livestock breeding and fresh water fisheries are also significant.

Shan State produces the majority of Myanmar’s tea, soybean, garlic, and potato as well as much of the country’s maize and coffee (Table 3). Southern Shan is ideally suited to grow high-value crops such as fruit (citrus and grapes), vegetables (tomatoes, cauliflower, cabbage) and tea, because most farming is conducted at higher elevations. Its proximity to major markets in Yangon and in Thailand and China could allow it to develop a strong agro-business sector that benefits everyone, from smallholder farmers to international processors. The key will be the amount and type of investor, and whether smallholder farmers can to plug into the larger agri-business ecosystem.

Table 3. Shan State major crops (by share of Myanmar total acreage), 2010-11

Crop	Acres sown in Shan State	Share of Myanmar total acres
Tea	190,221	81.2%
Soy bean (“peboke”)	216,512	80.9%
Garlic	45,242	63.2%
Potato	55,259	57.8%
Maize	425,128	44.2%
Coffee	26,421	43.5%
Chick pea (“gram”)	1,767	26.4%
Sugarcane	78,275	20.9%
Wheat	39,947	15.9%
Lablab bean (“pegyi”)	4,054	14.7%
Vegetables	180,096	13.5%
Groundnut (rain) ^a	114,412	12.0%
Rubber	149,019	12.0%
Rice bean (“peyin”)	13,404	10.5%
Plantain	18,940	10.1%

a. Rainy season groundnut. Winter season groundnut is also grown, but acreage is much smaller albeit growing.

Source: MNPED 2011.

The latest available data from the Ministry of Agriculture and Irrigation for Shan State show that in 2013, rubber, sugarcane, and cotton were the main planted industrial crops. According to the Ministry, the increase in rubber cultivation in Shan State is predominantly driven by China’s opium substitution program¹⁵ and is mostly localized in upland swidden fields in Northern Shan (Woods 2015).

In addition, 91% of Myanmar’s production of opium takes place in Shan State, and poppy cultivation persists in upland regions of Southern Shan State (UNODC 2011).

Paddy production appears to have grown slower than many other crops in the state. In addition to paddy, wheat, black gram, some pulses, tea, and potato have also grown slowly. The fastest-growing products in Shan State are rubber, duffin bean, sesame, groundnut, and some other pulses (Table 4). Coffee and sugarcane have also been growing relatively quickly. However, some of these faster-growing crops are coming off relatively small bases (for example, in 2010-11 there were only 173 acres of krishna mung and 812 acres of duffin bean under cultivation).

¹⁵ For more information on this program and its effect on agriculture in Northern Myanmar, including Northern Shan, see “Emerging Agribusiness Trends in Myanmar: Opportunities and Challenges for Poverty Reduction” by K. Woods and “Financing Dispossession: China’s Opium Substitution Program in Northern Burma” by T. Kramer and K. Woods.

Table 4. Fastest-expanding crops (acres sown), 2004-05 to 2010-11

Crop	Shan State average annual growth	Myanmar total average annual growth
Rubber	58.3%	16.3%
Duffin bean (“pebyugale”)	21.1%	3.4%
Sesame (late)^a	20.2%	7.7%
Groundnut (winter)^b	17.9%	4.1%
Krishna mung (“panauk”)	16.3%	0.2%
Lablab bean (“pegyi”)	13.7%	3.4%
Green gram (“pedisein”)	13.2%	5.3%
Onion	9.9%	2.5%
Coffee	9.9%	9.3%
Plantain	7.5%	3.5%
Sugarcane	7.2%	0.6%

a. Late season sesame. Early season sesame is more common, but slower-growing.

b. Winter season groundnut. Rainy season groundnut is also grown, see above.

Source: MNPED 2011.

UN-Habitat (2013) notes that some large-scale commercial farming projects are being developed for upland rice production in Shan State, making use of a contract farming model involving small-scale out-growers and a commercial processing company. In addition, since the mid-2000s, the uplands in Shan State have been transformed by large-scale cash crop concessions; rubber, tea, sugarcane, and cassava plantations, among other crops, are concentrated along government-controlled roads (UN-Habitat 2013). Rubber plantations are rapidly growing in Northern and Eastern Shan. There is also potential to establish contract farming for some horticultural products in Shan State, as was demonstrated by Pepsi Co initiating contract farming with potato producers in the area. However, attempts to extend contract farming to rice have been less successful and only marginally beneficial to participating farmers.

With regard to land concessions, it is important to point out that, according to the latest available data from the Ministry of Agriculture and Irrigation, of more than 6 million acres of designated vacant and virgin land in Myanmar under the VFV Law, Shan State has by far the largest area - 3.6 million acres (Woods 2015). Overall, Shan State has the most land in the country regarded by the Ministry as available for cultivation – approximately 7.4 million acres, of which over 323,000 acres were allocated for concessions in 2012-2013 (Woods 2015).

A recent assessment by Mercy Corps concluded that production systems for most crops remain quite traditional, particularly at the start of the chain, and that there are quick gains to be made by improving techniques. Currently, the agricultural sector in Southern Shan is dependent on smallholder farmers using outdated techniques, such as hand digging for planting, etc. Recent shifts in weather patterns and continuing degradation of soil quality have led to lower crop yields, at a time when input costs and sales uncertainty is rising. Pressure to maximize land in cultivation and focus on monoculture cash crops has exacerbated the situation. As in other parts of the country, farmers tend to sell their crops at harvest time when prices are low, because they need the cash to pay off debts and meet household needs. It is also unclear if there is adequate storage space available. Currently most farm production is sold directly into national and international trading networks (Mercy Corps 2014).

Little agricultural processing or value adding is done in Shan State. Most processing is in bigger centers, such as Mandalay or Yangon. Shan State has a small number of registered food processing businesses, according to the Ministry of Industry (Table 5), most of these being processors of edible oils from the State’s oilseeds (groundnut, sesame). These data likely exclude some early stage processing such as rice milling.

Table 5. Registered private food industry businesses in Shan State, 2012

Industry	Registered producers
Milk & dairy products	0
Edible oils	221
Confectionary	10
Agricultural products	1
Soft drinks	8
Alcoholic drinks	9
Livestock breeding products	2
Snack foods	1

Source: UNESCAP 2012 based on Ministry of Industry data.

6.2 Seasonality of crops

Based on the LIFT (2012) data, households in the Hilly zone are more likely to grow crops in the monsoon season compared to elsewhere in the country and are generally more likely to grow crops at any time of the year, including post-monsoon (summer) crops. According to the 2012 LIFT survey, the most common monsoon crop in the Hilly area was maize, planted by 44.2% of the respondent households, followed by paddy¹⁶, potato, pigeon pea, groundnut, and sesame. Interestingly, all these crops were commonly intercropped in the Hilly zone, which is normally not the case for paddy and potato elsewhere in the country. Farmers in the area rely on animals and manual labor for tilling the soil. Hand digging is especially common for planting maize.

Among the post-monsoon (summer) crops, garlic, groundnut, onion, and pigeon pea are the most commonly planted in the Hilly zone. While groundnut is the most prevalent summer crop in the country in general (and particularly in the Dry Zone), it is second to garlic in the Hilly zone (based on the LIFT data). For post-monsoon crops, hand digging is still the most common method of soil preparation, followed by use of animals.

As mentioned above, due to its climactic and geographic conditions Shan State enjoys a great variety of crops. Their combined cultivation cycle covers most of the calendar year. The graphic below presents cultivation cycles for the most common crops in Shan State, disaggregated by Southern Shan and the rest of the state (Thet Htun Aung).

6.3 Livestock

Livestock are an integral component of any agricultural system. Most rural households in Myanmar raise livestock, which is a source of protein (meat, eggs, and milk), draft power, and by-products (hides and leather). Livestock represents a considerable portion of household income and capital; livestock production accounts for about 7.5% of GDP (ADB 2013).

There is little to no commercial livestock production apart from near major cities. Almost all livestock raising is small-scale by households. Livestock numbers have not grown much, with the exception of chicken. Chicken is now the country's second-most valuable agricultural product after rice (ADB 2014a); poultry numbers tripled over the last decade (ADB 2013). Meat (mostly chicken but also pork) and egg production grew more quickly than crops over the ten years to 2012, and milk production (including buffalo milk) has also increased considerably (ADB 2014a).

According to LIFT (2012a), buffalo were more common in the Hilly zone compared to the rest of the country, with on average two buffalo per household that reported owning them. However, chickens and pigs were the most common in the zone, owned by 50.3% and 37.3% of households surveyed respectively. Chicken ownership in the Hilly zone is consistent with the total sample, while pig ownership in the zone is higher than

¹⁶ Everywhere else in the country paddy was the most commonly planted monsoon crop.

elsewhere. Perhaps not surprisingly, cattle ownership in the Hilly zone (23%) is much lower than the Dry Zone (49%).

Owning livestock is a form of saving. Many households rely on livestock in difficult times. Nearly 21% of households in the Hilly zone said they sold or consumed more of their livestock than usual as a coping strategy in times of food scarcity (LIFT 2012a). This was the most common strategy after borrowing.

The shortage of livestock for draft power is one of the constraints to increased agricultural production in Myanmar (see below).

6.4 Constraints

Many constraints facing farmers in Myanmar are typical to agricultural value chains in developing countries: access to credit, the quality of infrastructure and logistics, and inadequate quality standards and testing/certification systems. In addition, multiple sources reviewed for this study show that Myanmar faces problems with input costs and quality (including fertilizer and improved seeds) and in many areas and for many agricultural commodities, production practices are often traditional and inefficient. Access to labor was also identified as a constraint in some value chains, including for harvesting soybean (Thet Htun Aung).

Constraints and problems for agriculture in Myanmar identified by the Asian Development Bank include (ADB 2013 and ADB 2014a):

- Poor production practices;
 - For example, leaving harvested paddy stalks standing on embankments, while the subsequent crop is established. This prolonged time in the field after harvesting leads to large losses in the quantity and quality of paddy harvests;
- High costs for farm inputs such as fertilizers, as well as the import of unregulated and poorly labeled fertilizer and chemicals;
- Certified or other high quality seed not widely available;
- Inadequate access to markets and inputs due to the poor condition of the rural road network, as well as the imposition of road and bridge tolls by local administrations;
- Limited mechanization. Only 16% of farming households use tillers or tractors for land preparation, compared with about 70% in Viet Nam, and only 15% of households use mechanized threshing, compared with 84% of rice production in Viet Nam;
- Lack of access to credit;
- Limited irrigation;
- Weak land tenure;
- Poorly developed research, training, and extension services; and
- Lack of electricity.

Households surveyed by LIFT (2012a) in the Hilly zone identified a number of constraints to crop production (Table 6). Lack of money to buy inputs, including fertilizer, is the most cited constraint.

Table 6. Constraints and factors limiting household crop production

Constraint	Hilly Zone	Total sample
Lack of money to buy the necessary inputs	43.0%	51.0%
Lack of fertilizer (or too expensive)	43.2%	42.2%
Bad/unreliable weather (including too little or too much rain)	27.9%	37.6%
Lack of seeds (or too expensive)	18.6%	19.0%
Crop pests and disease	16.1%	16.1%
Lack of casual labour available locally (or too expensive)	10.9%	15.1%
Lack of household labor	14.7%	14.2%
Lack of water resources or irrigation infrastructure	15.6%	14.2%

Lack of other tools and equipment (or too expensive)	9.9%	14.1%
Lack of pesticides (or too expensive)	11.4%	13.4%
Lack of land	13.8%	12.5%
Lack of draught/ mechanical power (or too expensive)	5.1%	10.0%
Low soil fertility/poor soil structure, etc.	12.1%	9.6%
Low prices for the agricultural crops grown	2.7%	3.8%
Salinity	0.4%	3.2%
Lack of knowledge, skills or experience	2.2%	2.9%
Animal damage	4.6%	2.1%
Not interested/grows enough/too risky to grow more	0.9%	0.8%
Soil acidity	0.1%	0.1%

Note: Multiple answers possible, hence columns sum to more than 100.
Source: LIFT 2012.

In Southern Shan, Mercy Corps found that smallholder farmers in the area need access to a range of services, much like their peers throughout the country (Mercy Corps 2014). These services include technical information on topics such as appropriate use of inputs, optimal crop selection, water management, and other standard issues. Smallholder farmers also require better links to higher-value markets, which would imply assisting farmers to organize and increase their negotiating power. Southern Shan does not have a strong tradition of farmers' associations or other mechanisms for joint selling, purchasing, and information exchange. Some recent, small-scale efforts to organize farmers have met with strong resistance from powerful agriculture brokers. Thus any successful work to increase farmers' power within the value chain will require enough scale to be meaningful and direct linkages to willing brokers (Mercy Corps 2014).

7 Recommendations to Strengthen Gender and Social Inclusion in Selected Value Chains

Given the diversity of agricultural production in Southern Shan, a number of value chains could potentially benefit from interventions targeted to smallholder farmers in general and women specifically. The project selected coffee and soybean as the first two targeted value chains based on the following selection criteria:

1. Total number of smallholders
2. Potential profitability for smallholders (per acre)
3. Market / commercialization potential
4. Potential for private sector alliances
5. Low barriers to entry / ease of entry
6. Potential for value-added

7.1 Coffee

The soil and elevation of Shan State makes it suitable to grow good quality (Arabica) coffee.¹⁷ In 2010-11, Shan State accounted for nearly 44% of the acreage sown for coffee in Myanmar (MNPED 2011), although at around 26,000 acres it is still a relatively small crop. From 2004-05 to 2010-11 the acreage devoted to coffee in Shan State grew an average 9.9% per year – slightly faster than the 8.8% average for rest of the country.

According to the data from the International Coffee Association (ICO), the domestic coffee market in Myanmar is relatively small, but may have significant growth potential. Per capita consumption is less than

¹⁷ Elevations above 1,000m (3,300 feet) with well-distributed rainfall of 1,500 to 2,500mm (59 to 79 inches) and a distinctive dry season are best (FAO 2005).

one-third that of Thailand and almost entirely consists of soluble coffee (ICO 2014). Rising incomes, plus increasing tourism, should see an increase in demand. Opportunities exist to export regionally and to Europe.

Around 80% of Myanmar’s coffee is produced by smallholders (the average holding is less than 1 acre). It can be grown on slopes and with other crops (such as rubber) because it needs shade.

Steps in farming coffee include harvesting, pulping, fermenting, washing, drying, hulling, cleaning, grading, sorting, storing, and transportation. Coffee is largely non-perishable and can be transported easily.

In general, distinct gender roles characterize activities related to coffee production, including postharvest handling and marketing. Overall, women may contribute up to 70% of the total labor involved in the production and processing of coffee beans. They are also key to the value-added activities that ensure the quality of the coffee production such as careful harvesting and picking only ripe fruit; clean water and hygiene of the pulping, washing, and drying infrastructure; and good timing of the fermentation and drying process.

Table 7. Men and women’s primary roles in coffee production

Coffee production		
	Men – primary roles	Women – primary roles
Production	<ul style="list-style-type: none"> • Land preparation • Soil and water conservation • Planting and pruning trees • Pest and disease control • Harvesting 	<ul style="list-style-type: none"> • Weeding • Harvesting
Postharvest handling	<ul style="list-style-type: none"> • Storage 	<ul style="list-style-type: none"> • Carrying • Drying, hulling, and sorting
Marketing	<ul style="list-style-type: none"> • Collection centers • Marketing and selling • Receiving proceeds 	

Source: Sustainable Coffee Program, Hivos and AgriPro Focus, 2014

The access to and control of resources and decision-making, however, are predominantly the domain of men, and women are generally not empowered in these areas of coffee production. Title to coffee land is frequently registered in the name of the male head of household, leading to a perception of coffee as a “man’s crop”. Men also assume the management roles of trading and selling the coffee that, in turn, entitles them to control of the proceeds. Women work primarily as unpaid family labor. Access to related services such as technical training and extension, certification, finance, and market information are frequently targeted to male farmers or are more easily accessible by them due to time, mobility, and education constraints that affect women.

Coffee is cultivated at higher elevations that, in the context of Shan State, include ethnic minority areas where the practice of customary land tenure prevails. The intent of the new land legislation, such as VFV Law, is to increase opportunities for private sector development of high-value agricultural commodities in these upland areas. Statutory land use rights will not be granted to land held in customary tenure. Indigenous smallholders risk being displaced or they may be less able or willing to invest in adopting new technologies on land they may lose. In addition, coffee plantations take several years to mature, which can be particularly challenging in the context of insecure land tenure.

7.2 Soybean

The greater and more regular rainfall of the Shan hills makes it suited to growing soybean. Soybean is one of Shan State’s largest crops (third behind paddy and maize in terms of acres sown). In 2010-11, over 80% of Myanmar’s soybean acreage was in Shan State. Land devoted to soybean in Shan grew an average 3.4% from 2004-5 to 2010-11 – twice as fast as in the rest of the country.

The demand for soybean has been largely driven by the growth in poultry production. Animal feed demand for soybean meal is growing and is primarily met by imports:

- quality of local soybean cake is low; cannot replace imports entirely
- but protein demand by local poultry and fishery is growing
- full fat soymeal is produced by commercial feed mills

Demand by soybean food processors (tofu, fermented soybean cake, etc.) is consistent but there is also small but growing demand for soy milk.

There are informal trade flows reported to the People's Republic of China and Thailand (Favre and Myint 2009).

Soybean is produced by smallholders as well as mid-size and large farms. Farmers involved in soybean also grow rice, maize, and niger. Some are also involved in pigeon peas and garlic (Winrock International, undated). The main harvest is during the monsoon¹⁸, so drying is a problem, as well as finding labor willing to work at that time (see below).

Overall, input cost are relatively low for soybean compared to other crops (maize, rice, garlic) and margins for smallholders are higher than other crops.

There is potential to introduce processors for making soybean oil. This can then be made into soybean cake with a screw press. Alternatively, using hexane it can be made into a soybean meal, which is higher in protein than cake and is better feed for poultry layers. But few millers do this and soybean meal is mostly imported. Another method is to add an enzyme to full fat soybean (beans heated, not crushed for oil) to produce meal. This is better for poultry broilers and is the largest meal source for commercial feed mills. But the enzyme is expensive (and imported).

There is only one soybean mill and refinery in Taunggyi. Most mills in Taunggyi also process groundnuts from the Dry Zone for local wholesale market.

Yields for smallholders could be improved with better practices. Favre and Myint (2009) found that in Shan State, on *yar mye*, soybean gross margins can be very low because of inefficient land preparation practices. However, in villages where improved cultivation practices have been adopted, soybean gross margins are comparable to groundnut.

Potential exists for farmers to benefit from contract farming. Contract farming overcomes problems of access to finance and input use, but many farmers are unable to fully benefit from the model. Farmer cooperatives would have more bargaining power for negotiating contracts.

Potential for gender-specific interventions will depend on the production model targeted by the Value Chains project: large-scale, commercial production that targets export markets or household-based production. In fact, with soybean it is possible to have a blended model that combines export and domestic consumption¹⁹. With soybean, if a small portion of the harvest is kept for domestic consumption and further processing (for example, making tofu and soy milk), women in particular may benefit from improved storage facilities and more advanced processing techniques.

7.3 Cross-cutting Recommendations for Gender and Social Inclusion in Value Chains for Rural Development

The following section looks at a range of gender issues related to value chain development, the constraints these can impose on women and opportunities for the Value Chains project to initiate pro-active strategies

¹⁸ See Figure 1 above for cropping calendar.

¹⁹ In USAID HARVEST experience, farmers that are involved in growing cash crops were convinced to keep as little as 5% of the harvest after seeing the nutrition benefits and additional income generation opportunities in this approach.

for women’s empowerment as part of value chain development. Finally, it offers some guidelines for working with rural women²⁰.

In rural households in Myanmar, both women and men are actively involved in agricultural production and related economic activities that are essential to support the well-being of the household, although the specific roles, access to and control of resources and decision-making are highly engendered. Women’s empowerment will result from increasing their access to and control of resources necessary for their livelihoods as well as strengthening their capacity and opportunities for decision-making within the household and their communities. The following summarizes the “business case” and the “development case” for focusing training, technical assistance, and other support to strengthen women’s opportunities. Notwithstanding the legal, social, and cultural obstacles that face women, they will tend to increase their productivity and their capacity to contribute to the financial security of the households, as well as gain the confidence and skills to be more pro-active in their relations within their households and their communities.

Table 8. Business case and development case to strengthen women’s opportunities

Business Case	Development Case
<p>Improve the efficiency of business. Although men are perceived as the “real” farmers, the economic stability of the household depends on the economic activities of all members including women. Focus on the crops and tasks that are the responsibility of women will increase the efficiency of the family business.</p>	<p>Strengthen food security and poverty reduction outcomes. Providing training, technical assistance and other support to women in their existing and new roles in agricultural value chains will ensure that all household members benefit from new technologies and practices that increase yields and gross margins.</p>
<p>Ensure the flow of quality goods. A significant portion of the individuals involved in producing and handling crops and creating value addition are women. However, as unpaid laborers, many women lack incentives for improving production and processing practices. Addressing women’s needs in the value chain will contribute to strengthening the quality of products.</p>	<p>Removing discriminatory beliefs and practices. Both women and men have the right to live free from discrimination, to have opportunities to access and use the resources that will assist them to strengthen their roles and responsibilities, and to expand horizons by learning new technologies and skills and gaining confidence.</p>
<p>Creating new business opportunities. Women are often invisible and underserved buyers and suppliers in agricultural value chains. Addressing their needs for technical, credit, and other resources can enhance the commercial viability of their work and, often, encourage the creation of new business opportunities.</p>	<p>Improving household nutrition. Household nutrition will improve through own consumption of nutrition-rich foods as well as increased income to buy the foods. Women are frequently responsible for growing vegetables and fruits and raising the small animals that can provide nutrition-rich foods. There is also a strong relationship between women’s income and its use to meet household nutrition needs (Quisumbing 2003).</p>

Source: MEAS, 2013

Mainstreaming gender in the Value Chains for Rural Development Project

As a first step to mainstream gender, the Value Chains project should ensure that the training, technical assistance, and other support services provided by the project reach the established targets for women’s participation. This is critical and must be done to meet the basic social and gender objectives of the project. However, mainstreaming alone may not result in significant, substantive, or sustainable changes for women’s roles and agency. Promoting women’s empowerment will require approaches that focus on how women can learn new skills and negotiate new spaces in their families and communities. To deepen benefits for women and to promote gender equity, the Value Chains project should:

²⁰ This gender analysis desk study should be ground-truthed in the specific context of Myanmar. In the coffee value chain, for instance, women in Viet Nam account for more than 50% of marketing activities while in Brazil very few women are involved in production due to high levels of mechanization. Neither of these conditions is likely to exist in Shan State, although this needs to be confirmed through targeted field research.

- Support women’s technical needs in the recommended value chains
- Support women’s participation and leadership in producer groups
- Strengthen micro-enterprise development associated with the targeted value chains and
- Establish socially inclusive project monitoring.

Each of these points is discussed below.

Support women’s technical needs in recommended value chains

In the coffee and soybean value chains, on-farm postharvest management involves activities that are the primary responsibility of women. These activities should be the focus of on-farm training, extension visits and other technical support directed at women, to introduce improved technologies, time-saving techniques, and ways they can enhance the value-added activities.

- **Postharvest techniques:** On-farm training and regular extension visits that work specifically and separately with women to teach them new postharvest technologies and techniques will strengthen women’s capacities and benefits. Targets should include how to improve value-added activities such as sorting and drying coffee beans. If some portion of the soybean crop is retained for household consumption, women should be involved in the design, construction, and use of proper storage facilities.
- **Coffee cupping:** Women and ethnic groups should be targeted to learn relevant cupping techniques and skills including how to use equipment, and be prioritized for wage employment.
- **Access to postharvest equipment:** Women involved in postharvest activities in the recommended value chains need access to good equipment. This can be achieved by facilitating access to credit for the women themselves, or by working with men to ensure that their access to credit is used to provide this equipment.
- **Training in the use and maintenance of mechanized equipment:** As households expand their use of mechanized equipment, they need training and technical assistance in the proper operation and maintenance (O&M) of equipment. Often equipment imported from other countries does not include user manuals in the local language and rural farmers frequently damage equipment through improper use, storage, and lack of maintenance. Simple techniques have been shown to save significant amounts of money to repair broken equipment or avoid expensive repair work²¹. Women can easily learn the techniques and appreciate the benefits for themselves and their households: “My husband is too busy, so I can do this.” “My husband has migrated for work, so I can do this.”

Engendering work to strengthen agricultural extension services (AES): Any work that the project does to build the technical capacity of government or private sector AES should reinforce the importance of delivery of these services to meet the technical needs of women’s roles in value chains in a manner that addresses time, mobility, and educational limitations. While the objective of value chain development is to improve productivity and access to markets of targeted agricultural commodities, some strategies may further marginalize women in the agricultural sector. Extension and technology transfer needs to recognize the potential gender impacts. For example:

- **Contract farming:** A scheme to enroll local coffee producers in the production of organic coffee in Uganda has demonstrated some adverse consequences for women’s time and labor²². As a result of the requirements of the scheme, women spent substantially more time than previously on activities such as weeding, manure application, harvesting, processing, and transportation, increasing overall

²¹ In Cambodia HARVEST, village-based O&M training focused on the use – and repair – of broken equipment in the practical part of training. At an estimated repair cost of \$60 per equipment, the repair of 700 hand tractors, water pumps, etc., resulted in savings of \$42,000.

²² Bolwig, S., 2012. Poverty and Gender Effects of Smallholder Organic Contract Farming in Uganda. Published by IFPRI, USSP Working Paper #8, June 2012. <http://www.ifpri.org/sites/default/files/publications/usspwp8.pdf>

the length of their workday and reducing the time they had to relax or sleep. Moreover, men continued to control coffee revenues as well as other resources and decisions.

- Wage employment: Agricultural wage labor is an important source of income for landless households. Agricultural value chain development will tend to increase the demand for wage laborers. However, despite guarantees to equal pay in the 2008 Constitution (Article 350), women in Myanmar earn as much as 20-30% less than the amount men earn for similar work.

Promote women’s participation and leadership in farmers’ groups, producer/marketing groups, and other associations

The collective activities of groups of farmers can be a powerful strategy to strengthen the adoption of new technologies, increase production, and ensure access to new market channels. However, for rural women in Shan State, the opportunities to participate in and benefit from these groups may not be readily accessible. Traditional social and cultural norms will tend to preclude women’s participation. If they do join, they risk being marginalized by the attitudes and behaviors of men, as well as by their own perceptions of appropriate roles due to lack of education, confidence, and self-esteem.

Leadership training can target women in the households and communities where the project will be implemented. Small-group training using participatory, adult-learning techniques will be most successful, and should be designed in recognition of women’s constraints related to time, mobility, and language/literacy (see also below). The focus of the training can be women’s participation and leadership in these groups, although the benefits will extend much beyond in terms of women’s own sense of empowerment.

Table 9. Scope of Indicative Women’s Leadership Training for Farmers’ Groups

Introduction	<ul style="list-style-type: none"> • Getting to know one another • Discussing what it means to be a good leader • Conducting SWOT analysis of one’s self-esteem
Gender in farmers’ groups	<ul style="list-style-type: none"> • What is gender situation in Myanmar? • What are gaps and needs in women’s participation and leadership in farmers’ groups?
Understanding farmers’ groups	<ul style="list-style-type: none"> • Definition of a farmers’ group and key principles • What are the benefits of a farmers’ group?
Leadership in a farmers’ group	<ul style="list-style-type: none"> • What is leadership and leadership styles? • What are the qualities of a good leader? • What are the roles of a leader in a farmers’ group?
Group dynamics and building cohesion in farmers’ groups	<ul style="list-style-type: none"> • Why is group cohesion important? • What are the conditions for successful group cohesion? • How do you achieve group cohesion?
Participatory design-making in farmers’ groups	<ul style="list-style-type: none"> • What is a decision-making process? • Why is it important to have male and female views in the decision-making process?
Communications in farmers’ groups	<ul style="list-style-type: none"> • What is good communication and how can it breakdown or fail? • Learning how to communicate effectively: active listening, being assertive, facilitation skills, negotiating skills, time management and public speaking

Source: SNV, 2014

Support micro-enterprise development associated with the targeted value chains

Throughout Myanmar, women and men engage in diverse micro-enterprises. Small-scale agriculture is a form of micro-enterprise – if it is approached as “farming as a business”. It is also likely that every rural household has at least one member who, seasonally or year-round, part-time or full-time, is involved in

activities such as small-scale vending, tailoring, handicrafts, machine repair, etc. These activities are frequently more stable than agricultural activities and can produce higher incomes.

However, women in particular but also men frequently lack basic skills to properly manage and grow a micro-enterprise. Farmers do not understand the relationship between input costs, productivity, revenues, and profits. Small businesses do not know how to account for sales on credit as well as cash sales; they do not know how to establish prices for their products based on time and materials costs; and, they do not have effective business development or marketing strategies. Women also lack the confidence, communications, and negotiating skills to enable them to build sustainable businesses. To address these issues, the Value Chains project should consider:

- Financial literacy training: A basic program of training and mentoring in financial literacy can be adapted to the needs of “farming as a business” and/or small, non-farm micro-enterprises. It can encompass proper recording keeping for agricultural production, as well as how to set up and maintain a cash book for small businesses. Small businesses can also benefit from learning how to keep a customer account book for credit sales; how to establish good prices for products and services that cover all costs and generate a profit; and the basics of marketing.
- Business planning and marketing: Larger micro-enterprises and producer/ marketing groups can benefit from a higher level of training that focuses on how to develop a business plan and effective strategies to identify and exploit new market channels. As part of business planning, farmers’ groups will also need to understand how to work collectively to plan production and how to negotiate with input and other suppliers for bulk purchases.
- Linking existing savings groups to the targeted value chains: Savings groups whose members are involved in a farmers’ group or have micro-enterprises in the same village can link women and other disadvantaged populations to higher value markets and generate increased incomes.

Establish socially inclusive project monitoring

In order to promote and track a proactive approach to social inclusion and gender equity, project indicators should disaggregate to measure and attribute the outcomes and impacts for women and other social groups. For example:²³

- In rural households, women and men of all ages are involved in productive activities that contribute to the well-being of the household. It is essential to disaggregate for sex when tracking the impacts and outcomes of project interventions. Similarly, data should be disaggregated where relevant for different ethnic groups.
- Rural households do not act in a unitary manner. Therefore, measuring impacts and outcomes of the “head of household” who is generally an older male will not capture the intra-household changes.
- Poverty is a dynamic condition in developing countries such as Myanmar. While people are often designated as poor or non-poor, the conditions of the majority of the population are that they are clustered just above or just below the official poverty line. Therefore, if there is a good harvest, many poor households will prosper and “move out of poverty” at least temporarily. Conversely, droughts, floods, or other “shocks” can result in non-poor households “falling into poverty”. As a consequence, assessing and drawing conclusions about project outcomes and impacts for households should take into account the current context.
- Indicators should capture quality and not just quantity²⁴. An important aspect of project evaluation is the perceptions and viewpoints of the participants. For example, that the project may measure the satisfaction of women and men as well as different social groups with services, with the quality of their participation/service access, or with their assessment of how they have (or have not) benefited.

²³ Land O’Lakes, 2015. Integrating Gender Throughout a Project’s Cycle 2.0. Washington, D.C.: Land O’Lakes, January 2015. World Bank, 2009. Gender in Agriculture Sourcebook. Washington, D.C.: World Bank, 2009.

²⁴ UNDP, 2012. Gender Analysis at Inn-Thar, Pa-O, Danu and Taung-Yoe Villages around Inle Lake. Yangon: UNDP Myanmar, December 2012.

Key principles for working with women

An effective approach to working with rural women in Myanmar must take full account of the social and cultural conditions as well as the existing capacities and self-perceptions of the women. The following are important to successful work with women, which warrants their mention.

- Women have limited time availability: Between their productive and reproductive roles in rural households, women have very little additional time available for training and other project-related activities. It is essential to negotiate with women to establish with them the frequency of their participation in project activities and agree on the timing and duration of these activities.
- Women have limited mobility: Rural women often lack the transport to travel far from their village, as well as the time or money to make the trip. Within the social norms of the community, women may be discouraged from traveling outside their village. Combining limited time and mobility, village-based training is often the most successful format for working with women.
- Women will likely have children with them when they participate in project training and other activities: As there is little or no childcare available, women will bring their young children with them to project activities. Women's attention spans may be interrupted by children's needs; women may move away and back into the activities as needed by their children. Ensuring the provision of water and healthy snacks will be important for the well-being of the children that accompany their mothers to training.
- Women and some men have limited language, literacy, and/or numeracy skills: Training methods and materials and all activities must be designed in accordance with the literacy and numeracy skills of the women who will participate in the activities. In ethnic minority areas, both women and men may only speak the local language.
- Women are not able to learn and adopt new technologies and technical information: This is a view often put forward by men but, unfortunately one that also reflects women's perceptions of themselves. However, ample experience on the ground clearly demonstrates that women are fully capable of learning, adopting and successfully using new agricultural technologies and other technical materials.

Overall, key principles for working with women include: respect, consultation, peer and group learning, and learning-by-doing.

Promoting gender balance in the project team

Finally, Winrock should ensure that project staff, in addition to their technical qualifications, have knowledge, attitudes, and skills that enable them to work effectively with rural women in the targeted value chains. The following are some suggested guidelines for recruiting and training staff to work with women.

- Hire intentionally to balance gender composition of the project team. To the extent possible, ensure that at least one candidate interviewed for each position is a qualified women.
- Provide awareness raising and ToT training on gender equity/mainstreaming issues to male and female members of project team, with an emphasis on participatory methods and practical examples of how to integrate women into project work, clients, etc.
- Support female and male staff to balance work and family demands.

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Appendix I: Organizational Mapping

According to Shan State Women Development Organization, approximately 40 women groups currently exist in Shan State, of which approximately 15 are more prominent and active, while most other groups appear to be village-based and difficult to identify through desk research. Below are brief organizational summaries for the most active women's groups in Shan State, based on our desk research and phone conversations with focal points, where contact information was available.

Most of the organizations described below are based in Taunggyi.

The Pa-O Women's Union (PWU)

PWU promotes Pa-O women's rights and empowers women to become leaders in politics, economics, and society. PWU was established in 1999 and is currently a member of Women's League of Burma (WLB). It was started by a migrant worker in Bangkok who realized that Pa-O women in Shan State needed an organization that would provide capacity building for local women and promote their rights. Currently, PWU cooperates with Pa-O National Organization and focuses primarily on social and religious community activities; membership fluctuates between 50 and 100 women, depending on the event being planned and required resources.

To date, PWU's major accomplishments include:

- Internship Program. PWU has operated an internship program every year since 2004 to empower young Pa-O women to be leaders; 18 women have completed the program to date. After completing the program, they went on to study at the School for Shan State Nationality Youth or Foreign Affairs Training, or became interns at WLB, Human Rights Education Institute of Burma or Altsean-Burma. Most former interns have come back to work as staff and trainers at PWU.
- Pa-O Women's School. In addition to developing leadership skills, young Pa-O women need to be trained in basic English, technical, and political skills, with the ultimate goal of returning to their villages to transfer their knowledge to others. The school was established in 2009 in Mae Hong Son, Thailand. The school offers a 10-month intensive training program. Graduates have to return to their villages for at least a year, after which they may apply to become PWU interns.

Building on the success of these classes, a group of PWU members recently formed a separate Pa-O Women Education Foundation that provides training in English and other skills in high-demand.

Shan State Women's Development Organization

The Shan State Women's Development Organization works towards eliminating all forms of discrimination and violence against women and children and improved wellbeing of poor and marginalized women and children in Shan State. Anyone from Shan State can become a member if they are committed to improving wellbeing and protecting rights of local women and children. The members pay a small fee for a 6-month membership.

In 2015, the organization plans to conduct training and workshops on handicraft making, gender equality and Constitution, CEDAW, and other subjects.

Shan Women's Action Network (SWAN)

SWAN was founded in 1999 and is active in both Myanmar and Thailand; it is also one of the founding members of the WLB. Initially, SWAN focused on advocating for the rights of Shan refugees in Thailand, but has since expanded into community-based advocacy and other activities on both sides of the border. SWAN has four main program areas:

- Education: education in Shan language in six schools along the border in Thailand.
- Women’s Empowerment: conducting trainings on leadership, gender, and human rights and providing year-long leadership training for women in Shan State with a focus on community-based project implementation.
- Information and documentation: production of Shan language newsletters and publication of reports on the situation of Shan women in Myanmar.
- Women’s wellbeing: basic health services and crisis support.

In addition to local organizations that promote gender equality and human rights, there are several organizations that focus on agricultural development in Shan State.

Metta Development Foundation

The Metta Development Foundation was established in 1998 to assist communities in Myanmar recover from conflict and humanitarian emergencies.

One of the highlights of the Foundation’s activities is the establishment of Farmer Field Schools (FFS) in Kachin and Southern Shan State. The objective of FFS is to give farmers an opportunity to learn and achieve greater control over the conditions faced by smallholder farmers. The program encourages farmers to understand integrated farming systems and focuses on community development. Many of the FFS members have established rice banks, seed banks, buffalo banks, saving and loan associations, and cooperative shops, while starting to cultivate cash crops, such as vegetables, tea, coffee, and mulberry for silk production.

Myanmar Agro Action (MAA)

MAA is a non-profit organization with members who are retired senior government officials experienced in agriculture and environmental sectors in Myanmar. MAA focuses on sustainable agriculture, environmentally friendly agriculture, and development of livelihoods through capacity building and conservation. MAA is currently staffed with 20 volunteer members, including an agronomist, botanist, zoologist, microbiologist, food technologist, and engineers.

MAA is actively involved in Southern Shan State, especially in the Inle and Pindaya areas, and has great knowledge of integrated agriculture systems in Southern Shan State.

United Nations Office on Drugs and Crime (UNODC)

UNODC has been implementing alternative development projects in Southern Shan State since early 2010. The implementation faced many obstacles in mobilizing opium farmers for crop substitution program due to internal conflict between arm groups. UNODC has been operating in the most difficult areas in Southern Shan State and has been able to establish strong commitment among the opium farmers, ex-opium farmers, and other farmers to support their livelihood program.

UNODC specializes in coffee cultivation and has conducted extensive assessment. UNODC has been providing technical support, farm inputs, seeds, and extension services for coffee farmers in Shan State.

Myanmar Fruit and Vegetable Producer Association (MFVP) of Southern Shan State

MFVP was established in 2010 under the Myanmar Fruit, Flower, Vegetable, Producer & Exporter Association (MFFVPEA; see below). Approximately 2,000 farmers are registered in the association and they are organized in eight groups based on the type of crops: potato, cauliflower, tealeaf, tomato, flower, ginger, mango, and coffee.

The goal of the association is to provide its members with technical support, information, training, and market linkages to increase sales. MFVP has been playing a critical role in promoting production of fruits and vegetables for both domestic and international consumers, especially in production and export of mango.

MFVP also serves as a platform for its members to discuss pressing issues and share opportunities through forums, exhibitions, conferences, and pilot projects.

Potato Producer Association of Southern Shan State

The association was also established in 2010 to provide support specifically to potato farmers. A total of 60 members are currently registered, including small farmers and wholesale traders. The association works together with other associations to provide farmers with training on good agriculture practices, irrigation, and other relevant knowledge to improve the quality and yield of potato production.

In 2013, the association began contract farming with Pepsi Co and Diamond Star Group. Myanmar potato farmers can produce quality products, but the rudimentary warehouse and distribution system means potatoes often spoil before they get to the market. Improvements to the potato logistics network can help stabilize potato prices in the region.

Myanmar Fruit, Flower, Vegetable, Producer & Exporter Association (MFFVPEA)

MFFVPEA was established in 2006 and operates under the Union of Myanmar Federation of Chambers and Commerce and Industry. MFFVPEA members include horticulture crop growers, buyers, brokers, scientists, wholesalers, retailers, and input suppliers from all over Myanmar. Currently, it has over 3000 individual members (up from 500 in 2006) and more than 37 company-members.

MFFVPEA has been playing a critical role to promote production of qualified fruits and vegetables for both domestic and international consumers. Based on the production area available and opportunities to expand the market, mango has become the top priority for the association, including in Shan State. Other agricultural products in Shan State that MFFVPEA works with include: tea, coffee, pineapple, tomato, green pepper, cabbage, ginger, potato, avocado, yam, and macadamia nut.

In addition, MFFVPEA organizes product-specific trainings and helps producers conduct competitor analysis, among other activities.

Appendix II: Recommendations for Further Research

The following questions are recommended for more in-depth, field-based research that will involve primary data collection and provide tailored information for the Value Chains project to better target its activities and interventions, particularly with regard to ensuring gender and social inclusion:

- Given ambiguous and rapidly changing legal framework for land ownership and land concessions in Myanmar, what are the de facto practices with regard to land tenure in Southern Shan? Do any differences exist among ethnic groups in the target areas?
- What are the specific responsibilities for women in agricultural labor within the project's targeted value chains? While there is generally little variation in rural agricultural labor divisions for men and women, there might be some differences and specific cultural practices associated with ethnic minorities in the target area.
- What exactly is the level of technical knowledge among the target beneficiaries with regard to production, harvesting, and postharvest processing in the selected value chains? How big is the need for training, particularly for female beneficiaries?
- In addition to the constraints outlined in this report, what are the specific challenges for agricultural development in Southern Shan State?
- Given the lack of data on trade volumes and flows for commodities and crops in Myanmar, it might be useful to try to estimate the proportion of maize, soybean, and other major crops grown in Southern Shan that is grown for export, for example under contract with CP and/or Chinese investors. This will most likely require contacting these companies directly, as well as local producer associations based in Shan State.