



Gender Empowerment and Agricultural Production in Lao PDR



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Background and Rationale

- The promotion of equality between men and women is a priority in the 8th NSEDP.
- The effective participation of women in various areas (economic, cultural, political,...) is essential to reduce poverty and to improve living standards.
- The agriculture employed approximately 65% of the total workforce in 2015 (half of which were women).
 - ❖ Women's illiteracy was higher than men's in the rural areas (21.5% against 8.4%) in 2017 (Labor Force Survey, 2018) → lower opportunities.
 - ❖ As women work more in commercial agriculture, they are away from home for more hours, and devote less time to attend to family nutrition needs in traditional ways.

Background and Rationale

- Women seldom receive adequate and continuous attention (e.g., agricultural policies mainly target men). This may hinder the achievement of agricultural development and poverty eradication programs.
- There is a great need to:
 - ❖ Promote *gender equality* in agricultural production in Lao PDR in the national policy agenda.
 - ❖ Recognize the contribution of *women's empowerment* to food security and agricultural incomes.

Research Objectives

- Overall objective: To provide the Lao government with guidance on appropriate policies to increase farming productivity and food security through the promotion of women's empowerment in the agricultural sector.
- Specific objectives:
 - ❖ To measure women's empowerment rural areas of the Lao PDR;
 - ❖ To investigate the impact of women's empowerment on agricultural production in the Lao PDR.

Research methodology

- To capture women's empowerment in agriculture, this research constructs the Women's Empowerment in Agriculture Index.
- Based on Alkire et al. (2013), this study focuses on five domains of women's empowerment (5DE).
 - ❖ Production
 - ❖ Resources
 - ❖ Income
 - ❖ Leadership
 - ❖ Time (workload)

Research methodology (Cont.)

Domains	Indicators	Definition of indicators	Weight
1. Production	Input in productive decisions	Sole or joint decision-making over food and cash-crop farming, livestock, and fisheries.	1/5
2. Resource	Asset ownership	Sole or joint ownership of at least one major household asset.	1/15
	Buy, sale or transfer of assets	Participation in decision to buy, sell or transfer assets.	1/15
	Decision about credit	Participation in decision-making about credit.	1/15
3. Income	Control over use of income	Sole or joint control over the use of income from crop farming, livestock farming, and fishery production.	1/5
4. Leadership	Group membership	Active member in at least one formal or informal group.	1/5
5. Time	Workload	Spent less than or equal to 10.5 hours on paid and unpaid work during the previous day.	1/5

Source: Alkire et al., (2013)

Research methodology (Cont.)

- To compare gender inequality across population groups, women's empowerment in five domains is broken down by:
 - ❖ Geographical locations
 - ❖ Ethnicities
- An econometric model is applied to quantify the impacts of women's empowerment on agricultural productivity, with a particular focus on rice and livestock production.

Research methodology (Cont.)

- Model specification:

- $\ln Y_i = \alpha_0 + \alpha_1 \ln WE_i + \alpha_2 \ln Land + \alpha_3 \ln Labor + \alpha_4 \ln Fertilizer + \theta HC_i + \lambda FC_i + u_i$

- $\ln L_i = \beta_0 + \beta_1 \ln WE_i + \beta_2 \ln Land' + \theta HC_i + \lambda FC_i + v_i$

- Estimation method:

- Ordinary Least Square **VS** Seemingly Unrelated Regression

Data collection

Quantitative surveys

- A household survey are conducted from June to August 2020.
- Field survey are carried out in four provinces:
 - ❖ Xiengkhouang and Sayyaboury (North)
 - ❖ Savannakhet (Middle)
 - ❖ Champassack (South)
- Sample size:
 - ❖ Proposed 400 farm households
 - ❖ Mainly focus on primary female from each household.

Data collection (Cont)

Qualitative surveys

- This research also aims to collect information from:
 - ❖ Head of village,
 - ❖ Head of women's union
- Focus groups will be organized with rice and livestock farmers.
- Interviews will be organized with representatives of government agencies (DOA, DAW, DLF, PAFO, DAFO, PLW, DLW, and Women's union).
- These interviews aim to determine:
 - ❖ Whether the existing policies are sufficiently effective.
 - ❖ What additional policies are needed to enhance women's role in agriculture.

Data collection (Cont.)

- The distribution of samples by provinces

Provinces	Frequency	Percent
Xiengkhouang	57	13.23
Sayyaboury	76	17.63
Savannakhet	175	40.60
Champasack	123	28.54
Total	431	100.00

Data collection (Cont.)

- The distribution of samples by ethnic groups

Ethnic groups	Frequency	Percent
Lao-Tai	277	64.27
Hmong	54	12.53
Khmu	57	13.23
Other ethnics	43	9.98
Total	431	100.00

Results and Discussions

- Five domains of women's empowerment in agriculture by provinces

	Production	Resource	Income	Leadership	Time	5DE
Xiengkhouang	0.178	0.110	0.167	0.124	0.076	0.656
	(0.272)	(0.168)	(0.255)	(0.189)	(0.116)	(1.00)
Sayyaboury	0.170	0.145	0.185	0.134	0.116	0.751
	(0.226)	(0.193)	(0.246)	(0.179)	(0.155)	(1.00)
Savannakhet	0.173	0.143	0.184	0.105	0.145	0.750
	(0.231)	(0.191)	(0.245)	(0.140)	(0.193)	(1.00)
Champasack	0.186	0.169	0.195	0.067	0.099	0.716
	(0.260)	(0.236)	(0.272)	(0.093)	(0.138)	(1.00)

Note: Numbers in parenthesis are the share of each domain in women's empowerment in agriculture

Results and Discussions (Cont.)

- Women's empowerment index bounds between 0.65 and 0.75.
 - The highest empowerment score in Sayyaboury
 - The lowest empowerment score in Xiengkhouang province.
- Women in Sayyaboury, Savannakhet, and Champasack provinces have higher scores in controlling household income.
- Female samples from Savannakhet and Champasack have the lowest score in the domain of leadership.
- Women from Xiengkhouang have the largest score in productive decisions, but lowest score in workload domain.

Results and Discussions (Cont.)

- Five domains of women's empowerment in agriculture by ethnicities

	Production	Resource	Income	Leadership	Time	5DE
Lao-Tai	0.182	0.158	0.191	0.107	0.130	0.768
	(0.237)	(0.206)	(0.249)	(0.140)	(0.169)	(1.00)
Hmong	0.159	0.103	0.155	0.114	0.073	0.605
	(0.263)	(0.171)	(0.256)	(0.189)	(0.121)	(1.00)
Khmu	0.168	0.114	0.175	0.096	0.118	0.671
	(0.250)	(0.170)	(0.261)	(0.144)	(0.176)	(1.00)
Others	0.180	0.168	0.195	0.055	0.095	0.693
	(0.260)	(0.243)	(0.281)	(0.079)	(0.137)	(1.00)

Note: Numbers in parenthesis are the share of each domain in women's empowerment in agriculture

Results and Discussions (Cont.)

- Women's empowerment index bounds between 0.60 and 0.77.
 - The highest empowerment index appears in Lao-Tai group
 - The lowest index appears among Hmong women.
- There are higher scores in the income domain.
- Women from Lao-Tai, Khmu, and other ethnic groups are in a better position in the control of household resources.
- Hmong women tend to work harder whereas their engagements in the productive decision, ownership of household assets, and the control of household resources are comparatively small.

Results and Discussions (Cont.)

- The impact of women's empowerment on agricultural production.

	Rice		Livestock	
	Coefficient	S.E.	Coefficient	S.E.
Constant	13.038***	0.656	-14.472***	4.901
WE (Log form)	0.177**	0.084	2.761***	0.613
Production area (Log form)	0.453***	0.052	0.596**	0.248
Rice farm labor (Log form)	0.031	0.037	-	-
Fertilizer (Log form)	0.000	0.006	-	-
Rain-fed rice	0.424**	0.179	-	-
HH heads' characteristics	Yes		Yes	
HH characteristics	Yes		Yes	
R squared		0.2528		0.142
Chi squared		136.18***		66.83***
Observations		406		406

Note: *** denotes significant at the 1 percent level, ** significant at the 5 percent level, and * significant at the 10 percent level.

Results and Discussions (Cont.)

- Positive association between production area and agriculture.
 - 1 percent increase in rice production area raises household income from rice production by 0.45 percent.
 - 1 percent increase in livestock production area raises household income from livestock production by 0.60 percent.
- Labor and chemical fertilizer are found to have no significant impacts on rice output.
- Other controlled variables (household and household heads' characteristics) exerts mixed effects on rice and livestock production.

Results and Discussions (Cont.)

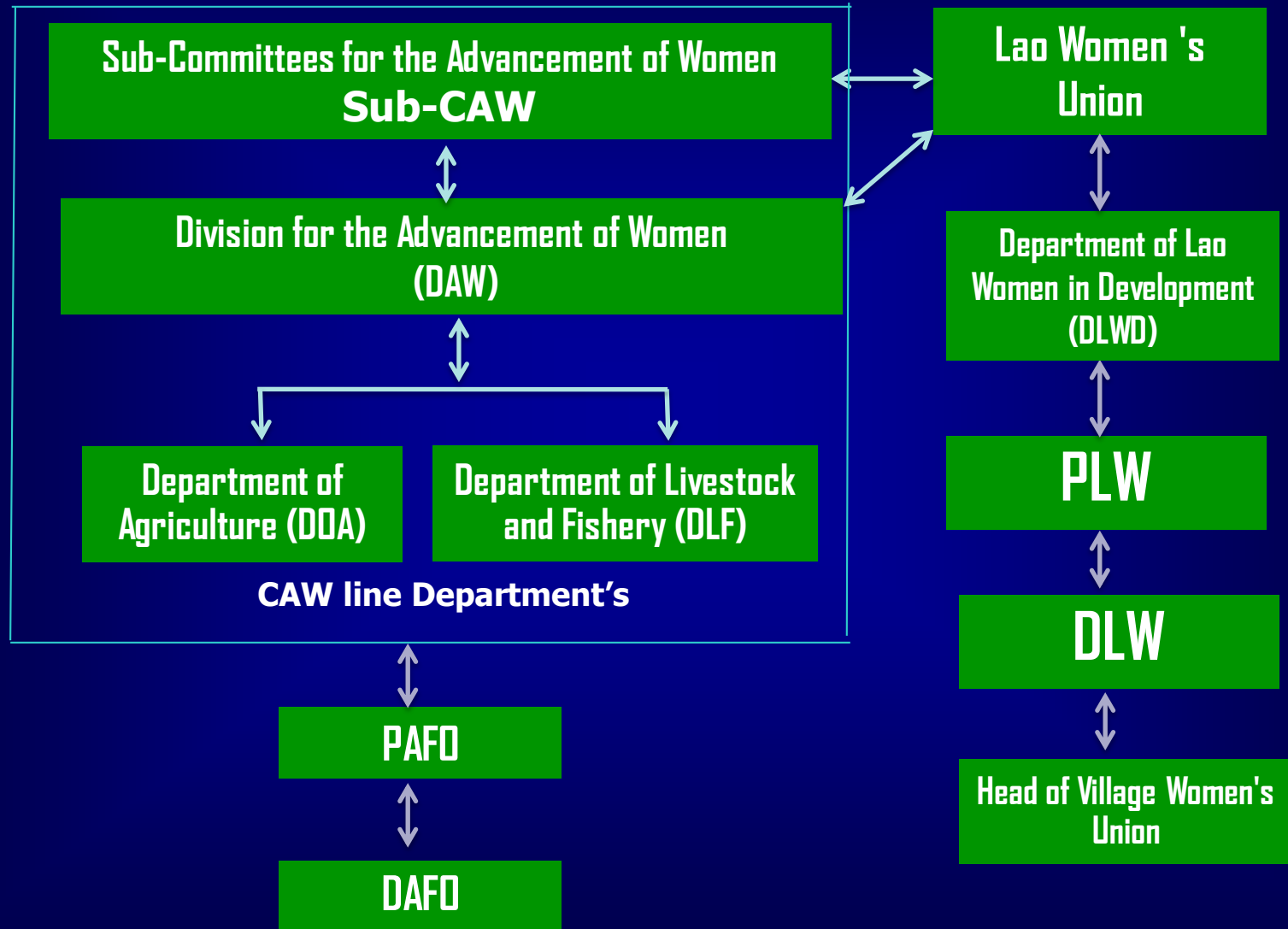
- Women's empowerment index is a significant predictor of rice and livestock production.
 - 1 percent increase in women's empowerment index raises household income from rice production by 0.18 percent.
 - 1 percent increase in women's empowerment index raises household income from livestock production by 2.76 percent.
- Possible reasons behind:
 - Women are altruistic and they allocate resources in a collective manner.
 - The rise of women's empowerment enables them to allocate productive resources optimally for agricultural production and in turn increase agricultural outputs.

Results and Discussions (Cont.)

- The findings of this study are:
 - Compatible with Wouterse (2017) in the context of Niger;
Diiro et al. (2018) in Western Kenya;
Rahman (2010) in Nepal.
 - Contradictory to Udry (1996) in Burkina Faso;
Karamba and Winter (2015) in Malawi
- The size of impact vary depending on the types of crop and livestock production.

Results and Discussions (Cont.)

Stakeholders' perspectives on gender empowerment in agriculture



Conclusion

- The primary objectives
 - To measure women's empowerment in agriculture.
 - To investigate the impact of women's empowerment on agricultural outputs.
- The results show that:
 - Women significantly contribute to agricultural production.
 - Women from Lao-Tai, Khmu, and other ethnic groups are in a better position in the control of household resources.
 - Hmong women tend to work harder whereas they are found to be disempowered in the productive decision, ownership, and the control of household resources.

Conclusion (Cont.)

- This study supports a view that promoting women's role in agriculture would significantly increase the outcomes of agricultural production.
- Based on the empirical results:
 - Women's empowerment index significantly increase household income from rice and livestock production.
- This implies that a policy intervention to empower women in agriculture can improve the effectiveness of poverty eradication program in the Lao PDR.

Recommendation

❑ Legal frameworks

- Some of laws and regulations were released and revised for decades and gender issue was not clear mentioned or even not mentioned. Therefore, those law and regulations may need to be amended (The Law on Agriculture has not been revised since 1998)
- The national gender mainstreaming guidelines in agriculture, land, and environment sectors need further revision for a better clarification
- Enact policies to overcome women's unequal access to economic livelihood opportunities, prohibiting sexual harassment, valuing and redistributing unpaid work, and ensuring full employment fair for all

Recommendation (Cont.)

- **Institutional and coordination mechanism and implementation of policy**
 - **Development donors should improve efforts to promote the advancement of women and gender equality under international commitments and national laws**
 - **Each project should ensure that men and women have equal control and access to the resources and benefits from agriculture project operations**
 - **Provide special attention in encouraging women to participate in planning and monitoring processes**

Recommendation (Cont.)

- ❑ **Capacity building for gender empowerment**
 - **Improve the capacity for all stakeholders to enable them to mainstream gender issues into the agriculture laws, decrees, and regulations, and legislation should address social issues associated with women in agriculture**
 - **Provide capacity building for women at PAFO, DAFO, agriculture technical service center and village level to be able to incorporate women development work in their activity plan and implementing the plan accordingly**
 - **Provide more opportunities and more support for vulnerable community households; establish village funds for women of ethnic minority and increase their involvement at the village and household decision-making level**
 - **Institution arrangement and the structures of the sub-CAW network should be strengthened and clarified their roles and measures of coordination to streamline and better coordinate gender work at all levels and among all actors**

Thank you!

