

Farmers' perception of launched land use rights registration program in Myanmar

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ABSTRACT. Myanmar started implementing the Land Use Rights Registration Program (LURRP) amid ongoing land ownership conflicts. The study aimed to determine farmers' knowledge, attitude, and participation relative to the LURRP. First, the paper provides a profile of the farmers regarding demography and socio-economics. Secondly, it discusses farmers' knowledge about LURRP and their attitude towards the program and its implementers. Finally, it reveals the farmers' participation in implementing the LURRP. The descriptive-analytical study involved 180 respondents of households with land use certificates from the 21 village tracts in Pyinmana Township, Dekkhina District, Nay Pyi Taw. The study employed a survey using a five-point Likert scale framed according to the Participatory Land Registration framework stages. The majority of farmers were males (80.0%), married (86.7%), belonged to the 38–57 age group (51.7%), reached primary schooling (99.4%), and worked on the farm for more than 31 years (51.1%) on an average of a 3-ha lot. Results revealed that farmers perceived LURRP as medium-level, while satisfaction with the process was moderate and high for personnel as implementers. The farmers highly participated in the field check and issuing stages, but participation was low in the other four stages. Intensification and enhancement of the promotion of community awareness on land laws and LURRP to increase farmers' knowledge using sources of information commonly used by the farmers, including the more personal means, and framing the information about the various stages of LURRP with a clear link to the benefits farmers are supposed to receive, may be considered. Eventually, these efforts can help create a more favorable community perception, appreciation of, and support for the program.

Keywords: farmland law, information sharing, land use certificates, participation stages

INTRODUCTION

Myanmar started implementing the Land Use Rights Registration Program (LURRP) amid ongoing land ownership conflicts. In Myanmar, land governance requires the rule of law, improved transparency, and fair land laws to get state legitimacy (Lau 2014). The land is a contested resource in Myanmar and has been a subject of controversies over land disputes (Open Development Myanmar 2016). To end the clamor of injustices on favors given to big land investors, it may be suggested that LURRP is the government's urgent response to the controversy.

The Farmland Law of 2012 aims to develop business opportunities and the country's economy through improved

utilization of lands (Boutry *et al.* 2017). In 2013 and for the first time, Myanmar started issuing land-use certificates (LUCs) to farmland holders through the implementation of LURRP (Srinivas & Hlaing 2015; Baver *et al.* 2013). The LURRP aims to benefit farmland holders with land security and access to lands they have been tilling for many years. However, since the enactment of the Farmland Law, it took only a few months, *i.e.*, January 1 to March 31, 2013, for the government to implement the LURRP.

In the promulgation of the National Land Use Policy (National Land Resource Management Central Committee, Nay Pyi Taw, January 2016), Myanmar is promoting

and gift their land use rights for cultivation; and 4) the Central FAB shall be responsible for revoking the rights to work on the farmland and provide land evaluation for various purposes (Boutry *et al.* 2017). Section 6 and Chapter II of the 2012 Farmland Law states that the Township FAB shall issue the LUCs to the following persons after the prescribed registration fees have been paid: an agricultural household (or) member of the household; head of household (or) a member of the household. So, there is no priority for the head of household over a household member, nor does it apply to a specific gender. Section 3 of the Farmland Law defines farmland as “areas of land designated as paddy land, ya land, kiang land, perennial plant land, taungya land, dhani land, garden land, land for growing of vegetables and flowers, and alluvial island land.” The law “does not include land within any town or village boundary used for dwelling, religious buildings and premises, and public-owned land not used for agriculture purposes.”

METHODOLOGY

Study site

The study was conducted in Pyinmana Township, Dekkhina District, Nay Pyi Taw in Myanmar (**Figure 2**). The farmland of Pyinmana covers an area of 12,509.24 ha, which is 11.34% of its total land area. Nay Pyi Taw is the administrative capital of Myanmar, where the LURRP was first implemented. Nine farmlands are managed under the 2012 Farmland Law. Pyinmana has 30,911 ha of arable land

divided into four: 16,491 ha lowland, 7,104 ha upland, 6,700 ha garden land, and 616 ha taungya (**Figure 3**). Lowland is utilized mainly for paddy cultivation, while primarily non-paddy crops are cultivated in upland areas. Vegetables and ornamental plants are cultivated on garden lands. Taungya is the shifting cultivation area in hilly regions.

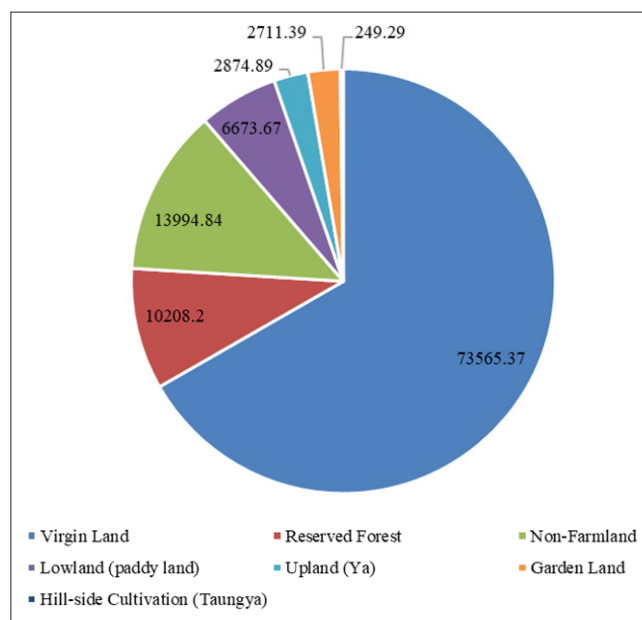


Figure 3. Area (ha) of land types in Pyinmana Township (Source: DALMS 2019).



Figure 2. Myanmar relative to its neighboring countries (left) and map of the Pyinmana township (right).

Population and sampling design

Pyinmana consists of 30 village tracts but only 21 of which have households with LUCs. Out of the 21 village tracts represented by 7,956 households (DALMS 2019), a sample of 180 households was obtained using the simple random sampling technique and employed a margin of error of 0.05 and a level of confidence of 95%.

Data gathering techniques and analysis

The survey study, framed after the Participatory Land Registration (PaLaR) process (Ulvund *et al.* 2019) and participatory land administration (PLA) framework (Asiama *et al.* 2017), was conducted in 2020. Descriptive statistics and analyses (frequency counts, percentages, means) were used to describe the respondents' responses. Except for farmers' knowledge and attitude, primary data on participation and government facilitation were gathered using a two-category, Yes or No, with descriptors (poor 6–7 points, fair 8–10 points, and good 11–12 points). A frame of land use rights registration processes supported the primary data gathering (Table 1). To solicit farmers' attitudes towards the LURRP and its personnel, two instruments employed a five-point Likert scale and were computed with reliability coefficients of 0.721 and 0.913, respectively. Focus group discussions (FGD) with other LUC recipients and key informant interviews (KII) with DALMS township and district officers were also conducted to triangulate farmers' responses.

RESULTS AND DISCUSSION

Characteristics of the respondents

Table 2 summarizes the characteristics of the 180 respondents, of which the majority (80%) were male farmers. This result corresponded to the registered names of landowners in the study area and was validated during KIIs. Accordingly, farmers can register their land use rights with the name of either the husband or wife. However, there was also minimal information for women on the option of joint registration. Joint LUC registration is defined as a registration in which more than one household member's name is indicated in an LUC. This LUC registration type is legal but seldom practiced (Faxon 2020).

The farmers' ages ranged from 33 to 83 years old, with an average age of 57.5 years. The majority of the respondents (51.7%) were from the middle age group (38–57), and the young age group (18–37) made up the small distribution of the farmers (1.1%). This shows that the active farmer labor forces were above 38 years old, and the small number of active young farmers may pose a problem in the study area in the long run. As discussed in the FGD, youth farmers had difficulty farming as it is physically demanding, labor-intensive, yet not enough to support a family financially. Farmers' children mostly wanted to migrate to the city rather than work as farmers. However, parents wanted their children to work/use the land and farm.

Table 1. Roles of the government and community under the land use rights registration.

Stage/Process	Facilitation role of government	Participation of community
1. Contracting and preparation	- Initiate to involve local stakeholders - Decide on the area of interest to be mapped - Sign a memorandum of understanding or MoU with the community for the work plan, registration fee, incentives, and contract for the operator team (geo-surveys/technical teams)	- Involve local stakeholders (the head of the village, community representatives) - Co-decide on the area of interest to be mapped - Sign MoU with the government for the work plan, registration fee, incentives, and contract for the operator team - Work with the geo-survey team on the hardware and software setup, field tests, and the compilation of baseline data.
2. Community socialization	- Promote inclusiveness in mind - Raise awareness and mobilization of community - Introduce methodology and technology	- Join in advocating inclusiveness in planning and procedures - Decide to approve the result of the activity in their village - Take responsibility for the execution of the plan
3. Training and data collection	- Train and assist in LURRP implementation - Conduct community meetings with wide participation rather than a representative meeting	- Act as facilitators in the conduct of awareness-raising campaigns in the community - Demarcate the boundary to survey - Collect spatial and legal data
4. Data cleaning and verification		Process the data
5. Data validation and integration	- Validate the collected data - Integrate the data into a dataset	
6. Document delivery	Issue the certificates	Check the personal land tenure documentation

The majority of the farmers (86.7%) were married, while the single farmers make up the smallest percentage (1.1%). Widow and widower groups made up 12.3% of the overall farmers. The size of the household reflects the availability of farmers to participate in any farming activities. About 80% of the farmers had four to six farm household members. Household size ranged from one to nine members. Myanmar's educational system consists of basic primary school level (4 years), basic middle school level (4 years), basic high school level (2 years), and university level. Almost half of the respondents (43.3%) finished at least basic primary school level (Grades 1–4). Accordingly, to be able to read and write was enough. Moreover, almost half of them (43.9%) finished Grades 5 to 8 or the middle school level. Farmers with higher education were 2 or 1.2% characterized to have shown better comprehension of advisories, acted upon the advisories more promptly, and shared the information with fellow farmers more often than those with lower education levels (Gowda & Dixit 2015).

Smallholder farmers have been predominantly involved in Myanmar's agriculture sector. The majority of respondents worked on the farm for more than 30 years (51.1%). About 56% of farm households own less than 2 ha (LIFT 2016). In Pyinmana, 8.9% of respondents owned more than 6 ha; about 60% owned 2–6 ha; about 31.1% had less than 2 ha. With a mean farm size of 3.17 ha ranging from 0.40 ha to 20.23 ha, it can be said that farmland size in the study area is varied. Lastly, while others were members of FAB and village committees, the majority (74.4%) did not join any association. Identifying ways how to engage more farmers in the association was discussed in the FGD. A reorganization of existing FABs was recommended to improve the flow of information between farmers and create opportunities for engaging women.

Farmers' knowledge about the land registration process

Table 3 provides the percentage distribution of farmers' knowledge of LURRP. The majority (68.3%) have a medium level of knowledge about LURRP. Overall, the mean score of 5.65 suggests that farmers have an inadequate understanding of the institutional policies and land registration processes despite the DALMS's promotion of the basic rights of LUC holders, among others, through extension education activities. The inadequate level of knowledge of the respondents was supported by incorrect responses of farmers to questions about LURRP. Majority of the farmers (84.4%) and (94.4%) failed to answer correctly the questions on the bill that supports the LURRP (*i.e.*, Farmland Law of 2012) and the final approving agency for LUCs (*i.e.*, FAB district offices), respectively. The respondents were also somewhat confused about which government agency is responsible for implementing the LURRP (45.6%) and if someone in their village represents them in the FAB office (40.6%).

Table 2. Demographic profile of respondents.

Characteristics	Frequency (n=180)	%
Gender		
Male	144	80.0
Female	36	20.0
Age (year)		
Young (18–37)	2	1.1
Middle-aged (38–57)	93	51.7
Old (> 57)	85	47.2
Mean		57.5
Range		33–83
Civil Status		
Single	2	1.1
Married	156	86.7
Widowed	22	12.2
Household size (number)		
1–3	24	33.0
4–6	145	63.0
Above 6	11	4.0
Mean		4.7
Range		1–9
Educational attainment		
None	1	0.6
Primary (Grades 1–4)	78	43.3
Middle (Grades 5–8)	79	43.9
High (Grades 9–10)	20	11.1
University	2	1.2
Farm experiences (years)		
0–10	5	2.8
11–20	33	18.3
21–30	50	27.8
31–40	59	32.8
Above 40	33	18.3
Membership in association		
None	134	74.4
Farmland administrative body	14	7.8
Village development committee	9	5.0
Others	23	12.8
Farm size (ha)		
Below 2	56	31.1
2–6	108	60.0
Above 6	16	8.9
Mean		3.17

Table 3. Farmers' knowledge about land use rights registration process.

Question	Frequency (n=180)		Percentage (%)	
	Correct	Incorrect	Correct	Incorrect
LURRP was being implemented by which law?	28	152	15.6	84.4
Which ministry is implementing the LURRP?	98	82	54.4	45.6
What is the final agency to approve the LUCs application?	10	170	5.6	94.4
Is there any village representative in the FABs?	107	73	59.4	40.6
What is the youngest age for the farmers to apply the LUCs? Inst,	58	122	32.2	67.8
Can foreigners or any organization in which the foreigner is included apply for the LUCs?	146	34	81.1	18.9
Does the person who has the right to use the farmland have the right to sell that right?	126	54	70.0	30.0
In which bank the person who has the LUCs can mortgage those rights?	163	17	90.6	9.4
Can the person who has LUC by other means change the originally cultivated crop with other kinds of the crop without permission?	161	19	89.4	10.6
Can the person re-apply if the issued LUC is lost or damaged?	120	60	66.7	33.3
Knowledge score level		Frequency	Percentage (%)	
Low (0–3 points)		27	15.0	
Medium (4–7 points)		123	68.3	
High (8–10 points)		30	16.7	
Total		180	100.0	
Mean		5.65		
Range		2–9		

Questions on addressing farming households' needs through selling rights over their land (70%), raising crops freely (89.4%), and mortgaging lands with the bank (90.6%) were answered correctly by the majority of the respondents. Overall results suggest that farmers may find LUCs beneficial in meeting financial needs. However, the farmers may not find interesting the institutional and legal support aspects of the LURRP.

Interestingly, although the farmers' answers to questions based on the institutions and the law of the LURRP were mostly incorrect, the FGD participants expressed confidence that their answers were correct. This suggests that the farmers were intent on acquiring knowledge about LURRP but find it challenging to appreciate information about the program that does not directly relate to the benefits they are entitled to. This is consistent with the findings of previous studies showing that farmer-beneficiaries of prospective government policies and programs tend to be more engaged in a learning process that is focused on their potential benefits than on the technical and legal issues (Asiama *et al.* 2017; Ulvund *et al.* 2019; Lau 2014; Hurley *et al.* 2022). It could further suggest that the knowledge-sharing process may have to be examined to make it more effective in transferring correct technical and legal information about LURRP.

Farmers' attitudes toward the LURRP

With a weighted mean of 4.31, the farmers' attitudes towards the LURRP were strongly positive (**Table 4**). Similar to the farmers' perception, the overall strongly positive responses of the farmers on LURRP are likely due to the focus of most questions on the benefits they can potentially get from the program. As discussed above, the promise of concrete benefits that may accrue to the farmers is a strong pull to elicit positive attitudes and support for a new program or policy. The pull effect in this case may have even been reinforced by the understandable long-running aspirations of the farmers for a better life. Further, this result also indicates that farmers have less intent to be engaged in discussing issues not clearly of direct benefit to them. It is conceivable that higher positive ratings are likely if questions on the comprehensibility of and procedural matters related to LURRP were framed to specific benefits to the farmers.

Farmers' perception towards LURRP personnel

Overall survey results reveal that the farmers have a high (mean=3.95) favorable sentiment towards the LURRP personnel (**Table 5**). All questions asked concerning the LURRP personnel except for one received strong agreement from the respondents. The only question that did not get strong agreement from the respondents was the knowledge level of the LURRP village personnel. This was also the only question that did not directly pertain to the farmers'

specific benefits from the program. On the other hand, all other questions were specifically about the benefits of the LURRP. Once more, it is notable that farmers' favorable perception of a program or policy was highly influenced by the benefits they perceived or received. It is also likely that the respondents' perceptions influenced their relations with the LURRP personnel from the same community. Studies suggest that personal ties among community members and friends are support mechanisms that make life pleasant (Wellman & Wortley 1990; Amati *et al.* 2018).

Farmers' participation in land use rights registration processes

The section discusses respondents' ratings on the LURRP processes categorized into six stages using PaLaR (Table 6). Among the six stages, only in the field check stage and the issuance of certificate stage did more than 60% of

the farmers participated. The field check stage appeared interesting to the farmers as these are familiar field activities and were easily perceived as spatially tied to the benefits they will receive. On the other hand, the issuance of the certificate stage is engaging for the farmers since this is the point where the benefits they are eager to receive will finally be handed to them. Once again, these results indicate the farmers' motivation to engage in programs where the benefits are clear and within reach. All the other activities in the other stages of the registration process are indoor and technical activities (such as training and seminars) or legal procedures that disinterest the farmers, likely due to the perceived minimal relevance to promised benefits or, as some farmers indicated, a case of misinformation. In similar studies on land registration, it was concluded that participation could be motivated by the kind of quality information people get through educational activities (Kusmiarto & Aditya 2020).

Table 4. Farmers' attitude towards LURRP.

Statement	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Weighted mean	Adjective rating
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
LURRP is very beneficial	0	0	0	0	0	0	28	15.6	152	84.4	4.84	High
LURRP is based on the farmers' need	0	0	4	2.2	0	0	36	20	140	77.8	4.73	High
LURRP is comprehensible	0	0	86	47.8	4	2.2	54	30	36	20.0	3.22	Moderate
LURRP encourages farmers' involvement.	0	0	82	45.6	10	5.6	56	31.1	32	17.8	3.21	Moderate
LURRP process period is fair.	0	0	60	33.3	10	5.6	102	56.7	8	4.4	3.32	Moderate
LURRP helps my children to inherit the farmland	0	0	11	6.1	0	0	61	33.9	108	60.0	4.48	High
LURRP reduces border conflict	0	0	12	6.7	4	2.2	57	31.7	107	59.4	4.44	High
LURRP helps in getting credits for farm inputs	0	0	0	0	2	1.1	26	14.4	152	84.4	4.83	High
LURRP increases tenure security	0	0	0	0	4	2.2	42	23.3	134	74.4	4.72	High
LURRP increases investment in land management.	0	0	8	4.4	4	2.2	63	35.0	105	58.0	4.47	High
LURRP helps to receive compensations if the land is taken away	0	0	0	0	0	0	45	25.0	135	75.0	4.75	High
LURRP promotes gender equality	0	0	2	1.1	5	2.8	99	55.0	74	41.1	4.36	High
LURRP increases female willingness to work in the field	0	0	7	3.9	0	0	107	59.4	66	36.7	4.29	High
I am satisfied with the LURRP	0	0	0	0	0	0	49	27.2	131	72.8	4.73	High
Overall weighted mean											4.31	High

Legend: 1–Strongly disagree, 2–Disagree, 3–Neutral, 4–Agree, 5–Strongly Agree

1.00–2.33 = Low, 2.34–3.67 = Moderate, 3.68–5.00 = High

Table 5. Farmers' attitudes toward the LURRP personnel.

Statement	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Weighted mean	Adjective rating
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Personnel are very suitable for their job	3	1.7	4	2.2	11	6.1	104	57.8	58	32.2	4.17	High
Village head is assisting	3	1.7	12	6.7	4	2.2	88	48.9	73	40.6	4.20	High
Personnel can be met easily	3	1.7	24	13.3	5	2.8	93	51.7	55	30.6	3.96	High
Village personnel are knowledgeable in their area of responsibilities	3	1.7	36	20.0	18	10.0	85	47.2	38.0	21.1	3.66	Moderate
Personnel respect farmers.	3	1.7	11	6.1	2	1.1	116	64.4	48	26.7	4.08	High
Personnel have good service delivery	5	2.8	17	9.4	12	6.7	110	61.1	36	20	3.86	High
Personnel are willing to solve farmers' problems	5	2.8	19	10.6	3	1.7	108	60	45	25	3.94	High
Personnel provide appropriate information about LURRP	3	1.7	29	16.1	7	3.9	101	56.1	40	22.2	3.81	High
Personnel visit farmers regularly	3	1.7	26	14.4	5	2.8	110	61.1	36	20	3.83	High
Overall weighted mean											3.95	High

Legend: 1–Strongly disagree, 2–Disagree, 3–Neutral, 4–Agree, 5–Strongly agree
 1.00–2.33 = Low, 2.34–3.67 = Moderate, 3.68–5.00 = High

However, people's commitment to the program should come first before they would engage in the registration processes (Balas *et al.* 2021).

Preparation. In this stage, more than 50% of the farmers did not participate in seminars, workshops, and village representative elections and had no family discussions about the program (Table 6). This could reflect the ineffective framing and conduct of these activities where the farmers did not easily appreciate its relevance to the eventual benefits they will receive from the program. The conduct of well-planned educational activities promoting land administration and registration policies through training needs assessment is a suggested starting point for impactful collaboration between program implementers and communities (USAID 2005; Hanstad 1998). Socioeconomic impact studies of potential successes (*e.g.*, land tenure and farm productivity) are also deemed important (Deininger & Feder 2009). Further, as revealed in Table 7, the ineffective facilitation of the activities by the government in this stage, as shown by the respondents' negative perception, could have minimized the respondents' participation in these stages.

Socialization. Socialization describes the participation of farmers in a) training events related to LURRP and b) farmers' reminders with other farmers to register their land-use rights. This aspect got a very low mean score of 2.61, making it the lowest among the six stages. Farmers' participation in the cited activities was very low in educational events (13.9%), which was supposed to increase

their knowledge about LURRP, and almost half (46.7%) did not remind their fellow farmers about registration (Table 6). Results suggest that farmers were not participative during the early part of the LURRP stages. Again, this could reflect the ineffective framing of activities in relation to farmers' benefits from the program. It could also be related to the government's ineffective facilitation of these activities, as perceived by the respondents (Table 7). Also, perhaps the respondents did not consider the efforts of DALMS and FAB Dekkhina hence, the very low participation (15.0%).

Field check. The majority of farmers were participative in checking land holdings on maps (78.3%) and working with surveyors in the field (70.6), indicating interest (Table 6). FGDs revealed that farmers were properly informed of the importance of checking the information about their land from the field survey and promptly correcting erroneous information. This is consistent with the importance of adequately communicating the relevance of activities to the benefits they will receive. It is also consistent with the agreement of more than 50% of the respondents that the government performed its facilitation role at this stage (Table 7). Of all the stages, the field check professes the technical role of the government but will need much of the land claimant's cooperation in doing a field survey, signing boundary approval, and checking with maps to pass the stage. Farmers may not appreciate the need to attend a field survey with surveyors to check the technical information on a map. Hence, motivating them to engage in such activities is crucial. This is despite the importance of checking holdings

Table 6. Farmers' participation in the LURRP stages.

LURRP stage and activity	Frequency (n=180)		Percentage (%)	
	No	Yes	No	Yes
<i>Preparation stage</i>				
Farmers' attendance at farmland law bill seminars	158	22	87.8	12.2
Farmers' involvement in village representative election	100	80	55.6	44.4
Farmers' discussion in the family	111	69	61.7	38.3
Mean	3.95			
<i>Socialization stage</i>				
Farmers' attendance at the LURRP awareness training	155	25	86.1	13.9
Farmers' reminder to other farmers	96	84	53.3	46.7
Mean	2.61			
<i>Field check stage</i>				
Checking with the surveyor in the field	53	127	29.4	70.6
Signing for boundary approval	131	49	72.8	27.2
Checking the holdings on maps	39	141	21.7	78.3
Mean	4.76			
<i>Application stage</i>				
Filling up the application form	160	20	88.9	11.1
Submission of the legal documents	140	40	77.8	22.2
Helping with other farmers' application	107	73	59.4	40.6
Mean	3.74			
<i>Adjudication stage</i>				
Checking the 30-day notice	160	20	88.9	11.1
Informing about the 30-day notice	165	15	91.7	8.3
Mean	2.19			
<i>Issuance of LUCs</i>				
Claiming the LUC by themselves	62	118	34.4	65.6
Checking the LUC after claiming	14	166	7.8	92.2
Mean	3.58			

Table 7. Farmers' access to the government's facilitation in the LURRP implementation.

LURRP stage	Activity	Frequency (n=180)		Percentage (%)	
		No	Yes	No	Yes
Preparation	Informing the rights of LUCs	97	83	53.9	46.1
Socialization	Orientation about the LURRP	153	27	85.0	15.0
Field check	Motivation of farmers to participate in the field check	83	97	46.1	53.9
Application	Providing free application forms	4	176	2.2	97.8
Adjudication	Announcing the 30-day notice	150	30	83.3	16.7
Issuance of LUCs	Correctness of the LUCs	19	161	10.6	89.4

before completing the registration process. The farmers and government should see roles mutually reinforcing each other.

Application. Overall, the mean participation score (3.74) in the LURRP application stage was lower than desired (Table 6). This could indicate that the importance of this stage may not have been clearly communicated early in the program implementation. The handing out of the free application forms by the government recognized by the respondents as properly done (Table 7) may have been without adequate explanation that filling out the application form is essential documentation required in acquiring a land certificate of ownership.

Adjudication. Across all activities in this stage, the farmers indicated low participation (Table 6). In part, this could be due to the inadequate job of the government in facilitating these activities (Table 7). Particularly, it could indicate the ineffective communication of the importance of these activities in resolving boundary conflicts before a certificate of ownership could be issued. It could also be in part due to the hesitation of farmers to deal with boundary conflicts. Participation may have been improved through various modes of extension such as a) interpersonal, b) group communication, and c) mass media (Table 8). However, results say that the source of information about the LUC was limited to FAB offices (46.1%).

Table 8. Types of information sources and access of farmers.

Information source	Frequency (n=180)		Percentage (%)	
	No	Yes	No	Yes
<i>Interpersonal</i>				
Surveyors from the DALMS	93	87	51.7	48.3
Extension staff from other departments	174	6	96.7	3.3
Village heads	31	149	17.2	82.8
Other farmers	100	80	55.6	44.4
<i>By-group communication</i>				
Farmers' meetings	149	31	82.8	17.2
Farmers field school	159	21	88.3	11.7
<i>Mass media</i>				
Radio	120	60	66.7	33.3
Television	117	63	65	35
Printed media	158	22	87.8	12.2

Interpersonal means of information sharing are face-to-face interactions between and among the village heads, land surveyors of DALMS, and farmers. Results show that farmers obtained information about LURRP, firstly, from the village heads (82.8%); secondly, from land surveyors of DALMS (48.3%); thirdly, farmers (44.4%); and from extension agents of other government offices (3.3%). Only 7.2% of the farmers did not access information from sources under the interpersonal category. These findings indicate that accessing information from the village heads appear to be the most effective among the four information sources.

Two types of sources to access the information about the LURRP and the land administration policies were identified, such as group meetings and farmers' field schools. Field schools had been introduced in Myanmar through programs and projects spearheaded by the Ministry of Agriculture, Livestock and Irrigation, and Ministry of Natural Resources and Environmental Conservation. A small percentage of farmers accessed information about the LURRP through the farmer field schools (11.7%) and group meetings (17.1%). This may suggest that the group method will not be as effective as through village heads but still a possible means of getting information.

Mass media (*i.e.*, radio, television, and print media) are commonly accessible to Myanmar citizens. Cellphones were not listed as most farming families were unfamiliar with them, which may be attributed to farmers' education and age. The findings show that 35% of farmers accessed information from television, 33.3% from radio, and 12.2% from printed media. On average, 71.6% of the farmers did not access the information from the sources under the media category across the three types of mass media mentioned before. It may be inferred that farm households have customary sources of information of interest to them that they access to know about the government's LURRP and land administration policies. If this is true, the preference of which source should be considered to increase participation in future government programs like the LURRP being implemented by DALMS should seriously consider those sources that target participants commonly use in gathering routine information such as daily news. Among the three information sources, interpersonal sources were the most preferred (52.8%). Group media was the second most preferred (31.10%). Only 16.10% of the farmers preferred the mass media information sources; thus, it is the third most preferred source.

Issuance of LUC. As shown in Table 6, the participation of farmers in this stage is high. Expectedly, granting of LUC was highly participated as it is the consummation of the aspiration of the farmers to have the security of tenure to

the land they till. Still, a good proportion of the farmers did not participate in the activities in this stage. It could be due to factors not investigated in this study. One could be the perception by some farmers that a certificate of ownership is but a piece of paper and that the lack of it will not be able to remove them from the land they cultivate without tenure. Others may have their sense of security based on the benevolence of the government that will not force them out of their lands as it has been doing in the past. Some may be intimidated by the responsibility of a land ownership certificate, such as paying taxes. While others may not appreciate the importance of having a certificate of ownership to the land they farm because they have enjoyed the freedom to farmland they do not own for the past years. However, studies suggest other reasons for the landowners' disinterest. One reason is that farmlands in Myanmar are reportedly unproductive, as evidenced by the support of development partners in infrastructure development programs to address the problem (World Bank 2016). Unproductivity of the land may have dampened the interest of farmers to acquire LUC since unproductive lands usually have low mortgage value. The study by Singirankabo & Ertsen (2020) suggests that "land registration can threaten 'de facto' tenure security or even lead to insecurity of tenure," which may have been the case among farmers in this study.

CONCLUSIONS

The study investigated the perceptions of 180 farmers-recipients of the LUCs through the LURRP launched in Myanmar. The LURRP is Myanmar's first innovation on land administration reform after three months of preparation before rolling out by the DALMS.

Below are the key findings of this study:

- 1) Farmers' knowledge about the LURRP and its institutional support, *i.e.*, Farmland Law of 2012 and FAB offices close to the farm households, was inadequate despite training and seminars. However, their level of knowledge on topics where LURRP was found beneficial (*e.g.*, selling rights over land and land as bank collateral) was noted high. Thus, farmers strongly perceived the LURRP positively because it is an instrument for the long-time desired land to be granted to them.
- 2) Farmers had favorable sentiments towards the LURRP implementers, particularly the FAB staff who reside in the same village. How farmers perceive LURRP staff depends on personal ties.
- 3) More farmers participated in field checks and issuance of LUCs among the six LURRP stages. Perhaps they considered the activities *i.e.*, checking landholdings

on maps and field surveys, as familiar ground and necessary stages to get benefits. They were not interested in stages that required attendance to training and seminars or legal procedures. Studies suggest that increased farmers' participation may be achieved through a well-planned registration program that focuses on people's needs and aspirations, explores how quality information can best reach the farmers, and considers impacts between potential success factors.

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