



East Asia & Pacific  
Gender

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# How Do Shifts in Land Tenure Affect Farmers in the Philippines?

## KEY FINDINGS

- Land titling interventions often span several years. The impacts of an intervention that subdivides collective land titles and issues individual titles can vary across individuals and time.
- The vast majority of farmers in the sample prefer to own land individually rather than collectively. However, an intermediate stage in the intervention—between survey subdivision and issuance of individual titles—decreases their perceptions of tenure security, trust in government, happiness, and women’s decision-making authority in the short-term.
- These shifts are not universal across farmers, and the anxiety related to a change in tenurial status may fade over time.
- The receipt of individual land titles improves perceived tenure security and can lead to investment in the land.
- To ensure positive or neutral impacts throughout the process of the transition in land rights, clear communication and access to support services are essential, as well as ensuring titles are distributed in a timely manner.

## CONTEXT

Economic theory predicts that formalized property rights can influence investment decisions and productivity by reducing the threat of expropriation, increasing access to credit, and/or gains from trade.<sup>1</sup> However, rigorous evidence documenting impacts is thin, and most analysis does not

## EAST ASIA AND PACIFIC GENDER INNOVATION LAB

The East Asia and Pacific Gender Innovation Lab (EAPGIL) carries out impact evaluations and inferential research to generate evidence on what works in closing gender gaps in assets, economic opportunities, and agency, and how closing these gaps can help achieve other development outcomes. Ultimately, EAPGIL seeks to increase the welfare of women and men in East Asia and the Pacific by promoting the uptake of effective policies and programs identified based on evidence.

<sup>1</sup> See: Besley, Thomas. 1995. “Property Rights and Investment Incentives: Theory and Evidence from Ghana.” *Journal of Political Economy* 103(5): 903-937.

focus on the period during which land rights are in transition. Land reform programs can take many years to implement, so understanding the impacts during this transitional period is important for considering both beneficiary welfare and economic impacts. The potential impacts during transition are ambiguous. On one hand, change can breed anxiety, so shifts in land tenure arrangements could have negative impacts on farmers. Nevertheless, intermediate steps of land reform can also provide clarity on borders, settle boundary disputes, and reassure farmers that they will soon formally possess their land.

We explore the impacts of a land reform program in the Philippines using mixed methods at different periods of program implementation. Over 4.9 million hectares of land have been redistributed to over 2.8 million Filipino farmers under the Comprehensive Agrarian Reform Program (CARP) since its inception in 1988. Of these, almost half were awarded in the form of collective titles that did not provide beneficiaries with full individual property rights. The Department of Agrarian Reform (DAR) is in the process of subdividing these collective titles and distributing individual land titles to the respective Agrarian Reform Beneficiaries (ARBs). The DAR's Parcelization Program includes two major milestones: first, a subdivision survey demarcating the exact boundaries of each individual plot in the collective landholding and second, the registration and distribution of individual title documents. Prior to the subdivision survey, a *pulong-pulong*, or community meeting, is held to inform beneficiaries about the parcelization process, documentation requirements, and schedule of activities and to resolve border disputes, if any.

## WHAT DID WE DO?

EAPGIL, in partnership with Innovations for Poverty Action (IPA) and researchers from the University of Maryland and University of the Philippines Los Baños, carried out an experimental impact evaluation (IE) of the DAR's Parcelization Program. The IE randomized 475 collective titles across 12 provinces into equal treatment and control groups after our baseline survey was completed in 2017.<sup>2</sup> Treatment titles were prioritized for the subdivision survey, while control titles began the process only after the study. Our follow-up survey, conducted between November 2019 and February 2020, interviewed 641 ARBs across 324 titles.<sup>3</sup> At the time of our follow-up survey, most ARBs in our treatment group had been



part of a subdivision survey that measured the boundaries of their new individual parcels, but only a small portion of them had received their formal individual title documents. As such, the findings from the quantitative impact evaluation only represent the effects of an intermediate stage of the subdivision process, which may be different from the long-term effects after titles have been received.

To better understand the mechanisms of the impacts observed in the short-term and to try to understand the likely long-term effects of the parcelization program, follow-up qualitative work was conducted in April and May 2022. The qualitative sample included ARBs who had already received individual titles and those who were still waiting for individual land titles. A total of 66 interviews were completed in two provinces: Misamis Oriental and Davao Oriental. The sample included ARBs, spouses of ARBs, and local DAR staff.

## WHAT DID THE QUANTITATIVE ANALYSIS SHOW?

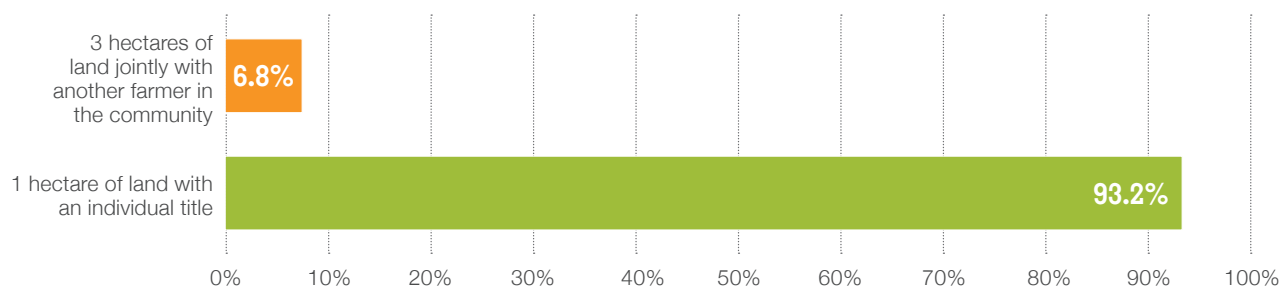
**The vast majority of ARBs in our sample prefer to own land individually rather than collectively.** At the time of the quantitative baseline survey, when all ARBs were still farming collective titles, we asked them if they would prefer to own 1 hectare of land with an individual title or 3 hectares of land jointly with another farmer. 94 percent chose the former option even though the latter gave them 50 percent more land. Importantly, most land originally awarded to ARBs as collective titles was done so to expedite the progress

2 Our sample included collective titles in the provinces of Camarines Sur, Albay, Davao Oriental, Davao del Sur, Davao Occidental, Sarangani, Sultan Kudarat, North Cotabato, Surigao del Sur, Misamis Oriental, and Bukidnon.

3 At the time of endline, treatment titles in the provinces of Bukidnon and Davao Occidental had seen little movement and were excluded from the sample as the intervention had not progressed enough to measure impacts. Pairwise randomization was carried out, so control and treatment titles from those provinces were excluded.

## FIGURE 1: ALMOST ALL FARMERS PREFER INDIVIDUAL TITLES

*“WOULD YOU PREFER TO OWN 1 HECTARE OF LAND WITH AN INDIVIDUAL TITLE, OR 3 HECTARES OF LAND OWNED COLLECTIVELY WITH ANOTHER FARMER IN YOUR COMMUNITY?”*



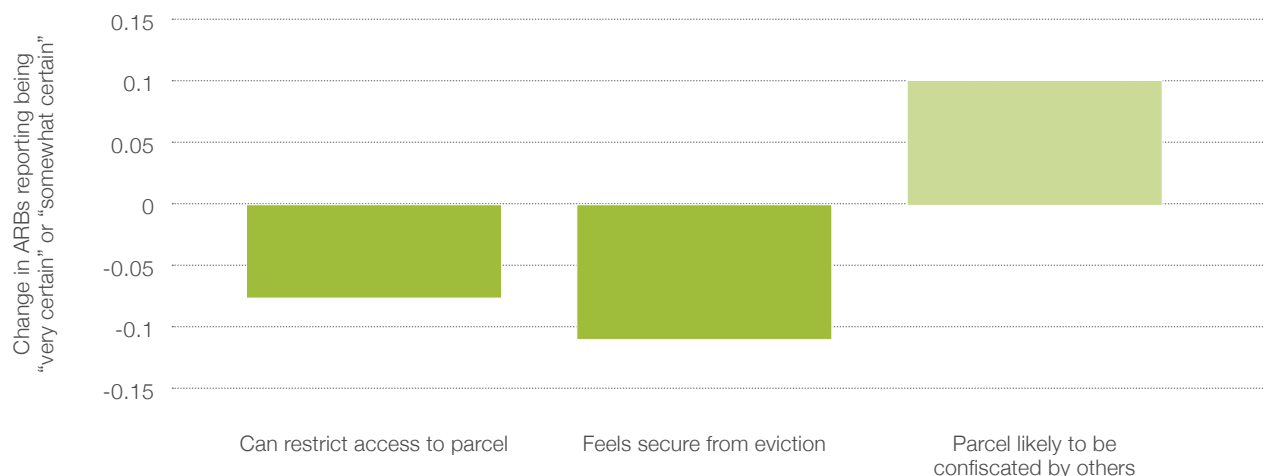
of redistribution, not because farmers exercised collective ownership or management of their land. Titles where ARBs prefer to remain under collective ownership are not subdivided by the DAR.<sup>4</sup>

**However, impact evaluation results showed that on average the subdivision survey—an intermediate stage of the parcelization process—reduced ARBs’ tenure security and trust in government, reduced their life satisfaction, and increased their anxiety.** Despite high demand for the intervention at baseline, at the time of our quantitative follow-up survey, ARBs in the treatment group reported significantly lower tenure security and trust in government compared to the control group. In particular, they reported feeling less

secure in their ability to restrict access to their parcels and felt less secure from eviction (Figure 2). Treatment ARBs also had less faith in the ability of their Barangay Council<sup>5</sup> and municipal government to help them enforce their land rights in the event of disputes with neighbors, government bodies, or private companies (Figure 3). Aligned with a decrease in tenure security and trust in government, we also find that the subdivision survey increased ARBs’ anxiety levels by 9 percent and decreased their life satisfaction by 26 percent. Interestingly, although tenure security decreased, the likelihood of leasing out the land increased after the subdivision survey, possibly due to clarity regarding the area that can be leased or to increase cash flow to make amortization payments, as described below.

## FIGURE 2: THE SUBDIVISION SURVEY LOWERS ARBS’ FEELINGS OF TENURE SECURITY

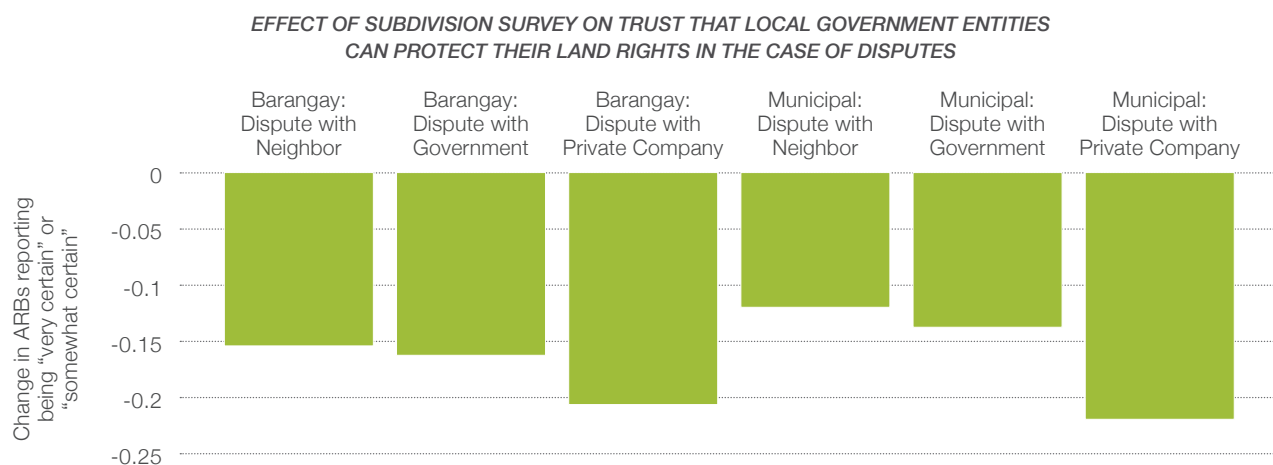
*EFFECT OF SUBDIVISION SURVEY ON SELECTED TENURE SECURITY OUTCOMES*



<sup>4</sup> ARBs of seven of our treatment titles opted to maintain collective ownership, and their titles were not subdivided.

<sup>5</sup> Barangay is the lowest level of local government in the Philippines, equivalent to a township.

**FIGURE 3: THE SUBDIVISION SURVEY LOWERS ARBS' TRUST IN GOVERNMENT TO PROTECT THEIR LAND RIGHTS**

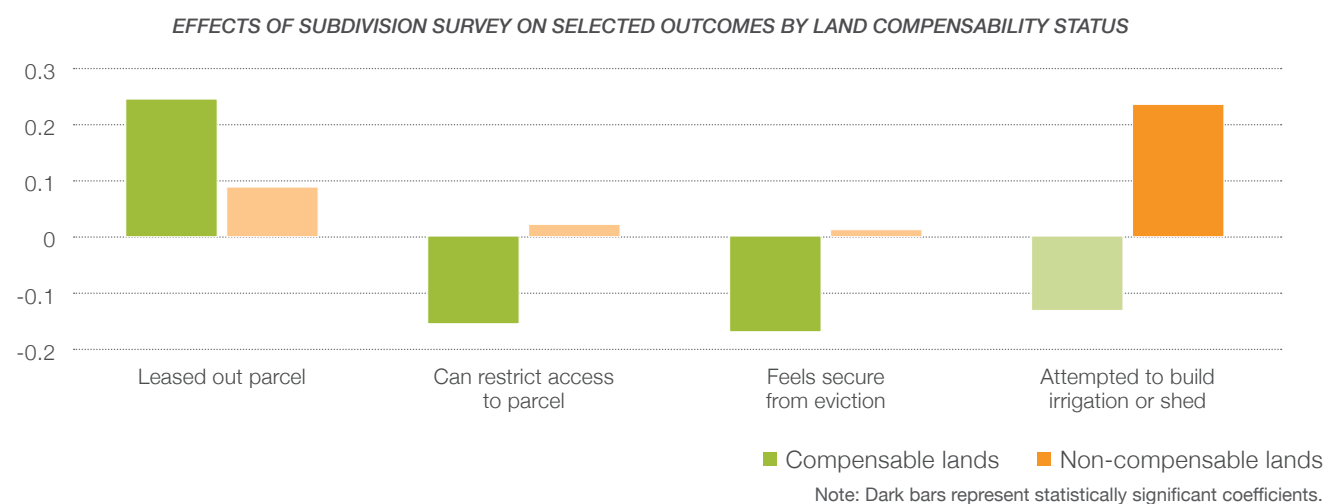


Note: All treatment effects are statistically significant at the 5% level.

These impacts are concentrated among ARBs whose land is compensable, meaning that they would need to repay the value of the land. Until the New Agrarian Emancipation Act was signed into law in July 2023,<sup>6</sup> recipients of CARP-awarded lands that were formerly privately held were required to make payments to the Land Bank of the Philippines (LBP) to compensate the former landowners. The receipt of an individual title also came with an amortization schedule, as the subdivision survey enables the calculation of the value of the parcel that each ARB owns.<sup>7</sup> Legally, ARBs could lose their land if they did not

make the required amortization payments. However, this rarely occurred in practice, and numerous support services were available from the DAR for ARBs who struggle to make payments. As shown in Figure 4, declines in tenure security were concentrated among ARBs on compensable lands, and ARBs on compensable lands were much more likely to lease out their parcels.<sup>8</sup> Moreover, while ARBs on compensable lands were less likely to make investments on their land after subdivision, those on non-compensable lands increased their investments in irrigation and sheds on their land after subdivision.

**FIGURE 4: FARMERS ON NON-COMPENSABLE LANDS SAW NO CHANGES IN TENURE SECURITY AND WERE MORE LIKELY TO INVEST IN INFRASTRUCTURE**



6 The New Agrarian Emancipation Act (Republic Act 11953) was signed into law on July 7, 2023 and condones principal payments, interests, and penalties on land that ARBs are currently tilling. The law also assumes the obligation of ARBs who were required to make direct compensation to former landowners, exempts ARBs from the payment of estate tax, and grants ARBs who have paid their debts already priority access to credit facilities and support services.

7 Clarity on parcel boundaries also makes amortization payments more enforceable.

8 43 percent of ARBs in our sample were on LBP-compensable land, and amortization payments were required at the time of the study.

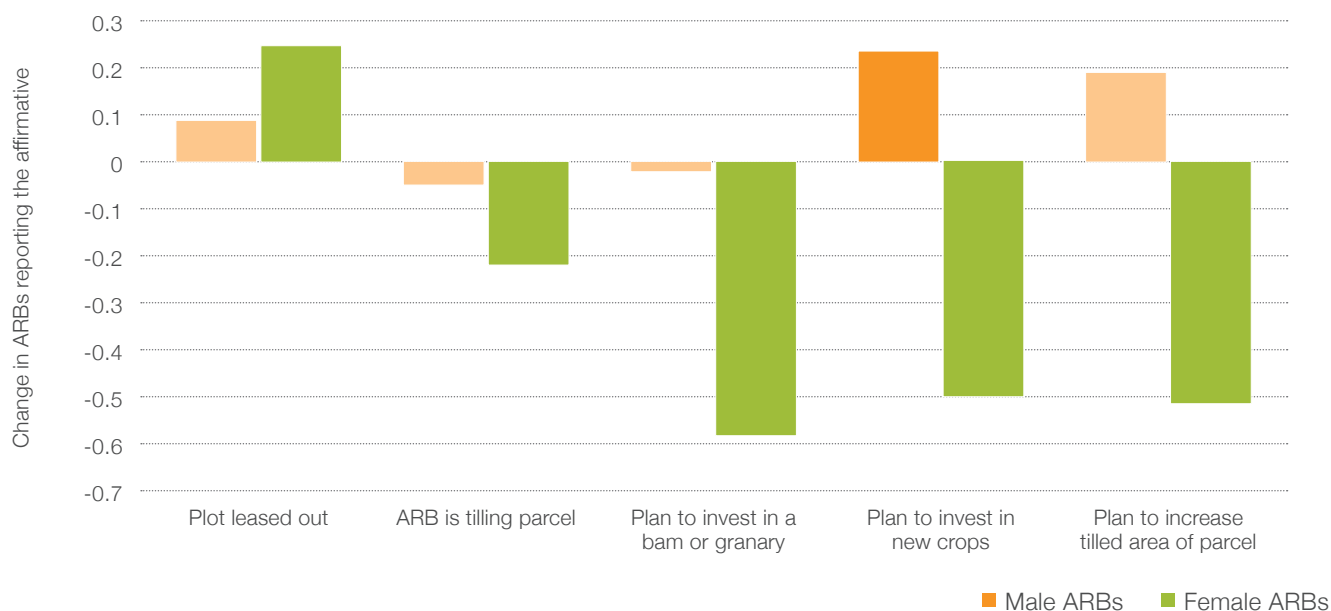


Impacts were also heterogeneous by gender, with female ARBs more likely to lease out their land and less likely to plan to invest in their land after the subdivision survey. Compared to the control group, female ARBs in the treatment group were 24 percentage points more likely to lease out their parcels, while male ARBs were 8 percentage points more likely.<sup>9</sup> Following the intervention, female ARBs were also less likely to say they will make investments in their land such as planting new crops, building new structures, or expanding the area planted (Figure 5). In contrast, the subdivision survey increased the likelihood that male ARBs plan certain types of investments including planting new crops. Female ARBs have fewer agricultural assets and have tilled their parcels for less time than male ARBs, but also have relatively more education and are more likely to have non-agricultural income. Gender differences in impacts may be due to the clarification of land rights in the intervention allowing female farmers to lease their parcels to more experienced farmers and concentrate on off-farm work where they have a comparative advantage. However, female ARBs also experience stronger declines in their trust in government and greater increases in their anxiety compared to male ARBs.

In addition to heterogeneous impacts across households, the subdivision survey shifted dynamics within households—reducing the decision-making power of the wives of male ARBs and reinforcing conservative gender norms. Compared to their counterparts in the control group, wives of male ARBs are 51 percentage points less likely to say that their decision can prevail after a disagreement with their spouse over major decisions on the parcel. Consistent with this finding, male ARBs are 33 percentage points less likely to say that both spouses can make decisions about agriculture. The subdivision survey also reinforced more conservative gender norms regarding land ownership and gender roles. Wives of male ARBs were less likely to say that their names were on the titles of the parcel, while male ARBs themselves were 34 percentage points less likely to say that women should be the final decision-makers on parcels they own<sup>9</sup> (Figure 6). Notably, these declines in women’s decision-making power occurred only in the households of male ARBs: in the households of female ARBs there were no significant changes in decision-making, and if anything, women’s involvement in decision-making may have slightly increased.

**FIGURE 5: FEMALE ARBS WHO RECEIVED THE TREATMENT WERE MORE LIKELY TO LEASE OUT THEIR PARCELS AND LESS LIKELY TO MAKE INVESTMENTS IN THEIR LAND**

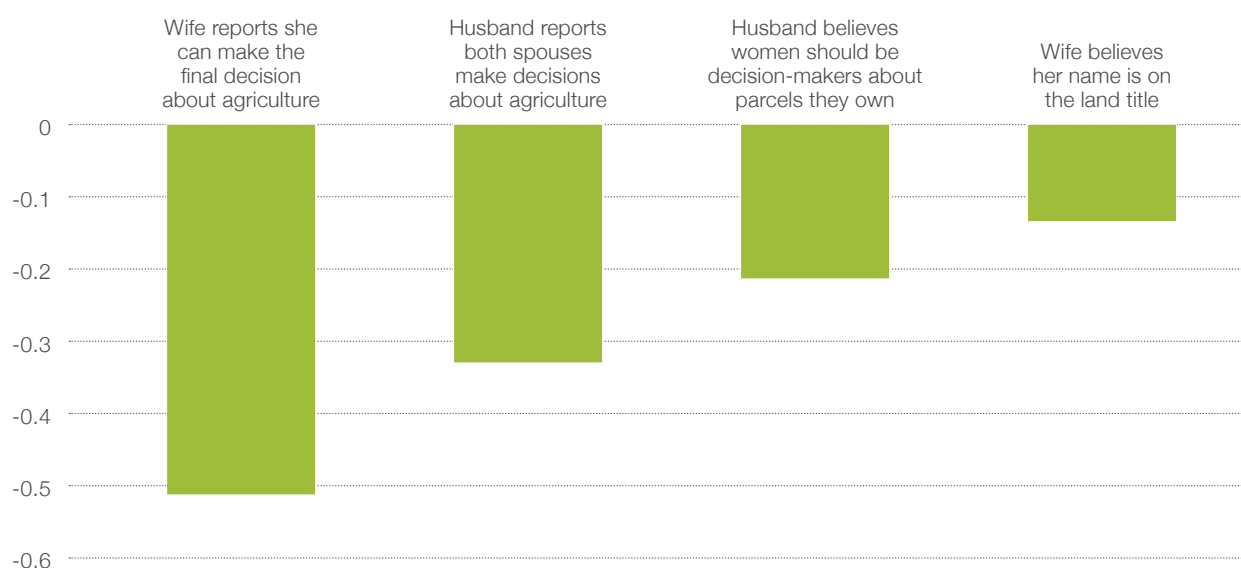
*EFFECTS OF SUBDIVISION SURVEY ON SELECTED PLOT-LEVEL OUTCOMES BY GENDER*



9 30 percent of ARBs in our sample are women.

## FIGURE 6: THE SUBDIVISION SURVEY HAD NEGATIVE EFFECTS ON THE WIVES OF MALE ARBS

IMPACTS OF SUBDIVISION SURVEY ON WOMEN'S DECISION-MAKING IN HOUSEHOLDS OF MALE ARBS, COMPARED TO CONTROL GROUP



### WHAT DID THE QUALITATIVE ANALYSIS SHOW?

**The issuance of individual land titles bolstered the sense of security and control that ARBs felt over their land, though the perceived impacts of individual land titles on ARBs' quality of life were diverse.** Individual land titles made ARBs feel more secure in their land rights and provided assurance that no other claims would be made on the land awarded to them. ARBs also perceived that with individual land titles they are in a better position to make decisions on the land, such as what crops to plant, the area to plant, what animals to raise, and how many. Some ARBs believed that not much had changed in their life after receipt of the individual land titles, while others felt that their quality of life improved, as they gained more autonomy over the land and were able to invest more in it. Some ARBs were able to use their individual land titles to gain access to electricity or water services.

**Perceptions of land rights during the transitional stage—after the subdivision survey and before receipt of individual titles—depend on the ARB.** ARBs and their spouses perceive the subdivision survey as the final step to obtaining the individual land title. Some ARBs felt their land rights were clear and permanent after the subdivision survey, and they began investing more in the land—for example, by

expanding the portion tilled or clearing, cleaning, and planting more permanent crops or perennial trees. Other ARBs felt that their land claim is temporary until the title is released, and without the title there is a risk that the government could confiscate their property.

**The pulong-pulong and subdivision survey are effective at helping beneficiaries understand the parcelization process and resolving border disputes; however, the process could be more informative and inclusive.** Most respondents had positive impressions of the pulong-pulong and felt that the discussion enabled them to feel more secure in their land rights. However, some respondents were apprehensive about the amortization and the property tax to be paid and were concerned about their ability to pay off the land. Relatedly, ARBs only had a general working knowledge about amortization and did not know when they will be expected to start making amortization payments. Several beneficiaries reported not receiving invitations to the pulong-pulong, and in most cases, invitations were only sent to ARBs and not to the spouses of ARBs despite the land being conjugal property. Some ARBs complained that the location of the pulong-pulong was far from the communities where they lived, and others found the subdivision survey to be physically taxing.

## WHAT DO THESE RESULTS MEAN?

**Even programs that can bolster land tenure security in the long run can breed anxiety and uncertainty during a transitional stage for some individuals.** Change can breed anxiety, and many land reform programs span several years, increasing feelings of uncertainty. On average, ARBs in the quantitative analysis had undergone the subdivision survey 20 months prior to the endline survey, and ARBs in the qualitative interviews had been waiting several years for their titles. The impact evaluation results demonstrated that on average, ARBs felt less secure in their land rights and greater anxiety in the first two years after subdivision. These impacts were greater for some individuals, including those on compensable lands and women. The qualitative analysis similarly revealed that the way the subdivision survey impacted tenure security differed among individuals, with some feeling more secure in their land rights whereas others felt that their rights were only temporary. It is also possible that these feelings change over time. Anxiety may be higher in the relatively short-term, and once ARBs have observed that nothing has materially changed in their access to the land or have witnessed other ARBs in their community receiving titles, these feelings shift again.

**Aspects of program implementation—including amortization, clarity of information, and documentation—can amplify feelings of tenure insecurity and anxiety**



**during a long transition process.** Quantitative results showed that the negative impacts of the subdivision survey were concentrated among ARBs on compensable land that would need to be repaid. ARBs on non-compensable land, in contrast, began investing more in the land. Qualitative work revealed that ARBs generally did not understand the amortization process well and were unsure of when they would need to make payments. Some also were concerned about their ability to make these payments. Because ARBs on compensable land were also more likely to lease out their land, we can deduce they may decide to lease their land to farmers with more access to productive inputs or greater skills and/or engage in non-farm activities in order to ensure they can meet their payment schedule. In addition, ARBs relinquish the original collective title after the subdivision survey, so it can be cancelled and an individual title issued. This leaves ARBs without formal documentation proving their ownership, which can exacerbate tenure insecurity.

**Aspects of program implementation may also explain the decline in women's decision-making authority in households of male ARBs.** By law, the land issued under CARP is considered conjugal property when ARBs are married. Nevertheless, most ARBs reported in qualitative interviews that only the ARB was invited to the pulong-pulong and subdivision survey. Program implementers mentioned that spouses tend to be invited if they cannot locate the ARB. ARBs and their spouses believed ensuring the presence of the spouse in the pulong-pulong and subdivision survey processes would make the process more inclusive and informative and would enable spouses to have an equal voice on decisions about the land.

**Despite some challenges during the transition in land rights, parcelization can be beneficial for ARBs.** Most ARBs have a strong preference for individual titles—most would prefer to have less land individually than more land held collectively. In addition, ARBs highlight how individual titles bolster their sense of security over their land and grant them more autonomy over agricultural decisions. Some also credit the individual titles with improving their lives by encouraging investment in the land or enabling access to services such as electricity and water connections. Importantly, there is no evidence of any lingering issues of tenure insecurity after individual titles have been received. The results of the impact evaluation can only shed light on the intermediate stage in the process when land rights are still in transition, and the qualitative evidence demonstrates that these effects are likely transitory.

## ACKNOWLEDGMENTS

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## POLICY RECOMMENDATIONS

**Communications about parcelization and land rights should be improved with more attention to invitations, detailed information about recent changes in amortization requirements, and more appropriate venues for community meetings.** Many ARBs report not receiving invitations to the pulong-pulong, and the agenda for the discussion is not clearly understood among those that do receive invitations. Extra effort needs to be made to ensure that all beneficiaries are aware of these critical information sessions and understand the importance of their attendance. ARBs and their spouses did not have a clear understanding of how amortization would work, and this is a source of anxiety. The recent reform removing ARBs' obligation to pay amortization means that better communication about how amortization works will no longer be necessary. However, communications should ensure that ARBs and their spouses are aware of the new law, understand that they will no longer be required to pay amortization, and that their land is also no longer subject to estate tax. Venues for community meetings should be selected with the objective of facilitating beneficiary participation: the venue should be in the community where most beneficiaries reside and be a well-ventilated and calm environment.

**The parcelization process should be more gender-sensitive and inclusive of spouses.** The central DAR office can develop a toolkit that provides clear guidance to local DAR offices on how to promote gender equality through their regular interactions with ARBs. Invitations to pulong-pulong and the subdivision survey should be addressed to both the ARB and the spouse when the land is conjugal property to enable spouses to feel included in the process, have the necessary information to fully participate in intra-household discussions and decisions regarding the land, and reinforce the notion that land is conjugal property. Information on spousal rights to conjugal property can be disseminated through the DAR's interactions with ARBs and their spouses. Finally, support services can be more inclusive by targeting not only ARBs but also their spouses and other household members.

**Accelerating the parcelization process, improving transparency throughout the process, and providing access to support services could alleviate concerns and enable beneficiaries to take advantage of increased clarity in land rights.** The long duration of the parcelization process creates uncertainty and is a source of frustration for beneficiaries. Improved coordination among the different agencies involved in parcelization and the digitization of the process could speed up implementation. More frequent communication about the status of titles could build trust in the system, and provision of a temporary document may alleviate concerns when beneficiaries must surrender their collective title documents for processing of individual documents. Finally, improving access to support services could enable beneficiaries to take advantage of the clarity in their parcel boundaries to make more investment in the land.

## FOR MORE INFORMATION

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