LAND USE PLANNING FOR SUSTAINABLE GROWTH IN INDONESIA
Low utilization of spatial planning tools, despite high stakeholder interest

Program Overview

MCC's $474 million Indonesia Compact (2013-2018) supported sustainable economic growth through the $228 million Green Prosperity (GP) Project. GP included the $38 million Participatory Land Use Planning (PLUP) Activity, which aimed to strengthen the capacity of local communities and district level institutions to manage their own land and resources and encourage investment. This was in support of GP's objectives to increase productivity and reduce greenhouse gas emissions. As a way to decrease land conflict and improve land use planning and management, PLUP conducted boundary-setting and mapping at the village level and developed geospatial land databases at the district level.

MCC commissioned Social Impact to conduct an independent final performance evaluation of the PLUP Activity. Full report results and learning: https://mcc.icpsr.umich.edu/index.php/catalog/180.

Key Findings

Challenges in Implementation

› Most Participatory Land Use Planning contracts successfully achieved outputs, but tight timelines and procurement delays threaten sustainability.

Participatory Village Mapping and Local Capability Building

› Village Boundary Setting was the most appreciated component for its high level of community engagement and alignment with technical requirements. Its high cost constrains replication, however.

› Villages mapped by PLUP comprise 20% of the definitively registered villages in Indonesia, despite being less than 5% of the total villages in the country.

› Policy changes during and post PLUP, including the introduction of a new online permitting system, diminished the use of PLUP's district-level information management systems and all 35 systems were offline at endline.

Barriers to Investment and Promotion of Sustainable Development

› While PLUP generated interest and knowledge in geospatial data there is little evidence to suggest PLUP effected overall land-use allocation, administration, and planning.

Evaluation Questions

This final performance evaluation was designed to answer the following questions:

1. What were the factors and challenges influencing PLUP implementation?

2. To what extent have PLUP outputs been sustained and short- and medium- outcomes realized and how did these vary across locations, gender, marginalized groups, implementers, and contract type?

3. What were the unintended results (positive or negative)?

Detailed Findings

These findings build upon the _interim evaluation report_ results published in 2016.

📋 Challenges in Implementation

Implementation challenges were largely consistent across PLUP contracts. PLUP contracts ran from 10-22 months, a timeframe that most implementers noted was insufficient to ensure the sustainability of project outputs particularly in face of procurement delays and other project complexities. For Village Boundary Setting, timeframes limited the period of community mediation for

Map of Sintang District

the 241 boundary disputes identified and not all issues were resolved by the activity's close. Tight timelines also did not account for the significant effort required to obtain, format, and clean land and licensing data and train government entities on its use. When training did occur, implementers were faced with high staff turnover and the need to revisit basic elements or adapt trainings on-the-go for attendees. Capacity-building was also hampered by MCA's delayed procurement of Information Management Systems (IMS) equipment and software. In multiple cases, Information Management Systems training had to proceed offline or required shifting trainings away from districts to regional centers. While the sequencing of implementation contracts provided an opportunity to incorporate lessons learned, the evaluation found minimal evidence of information sharing among implementers.
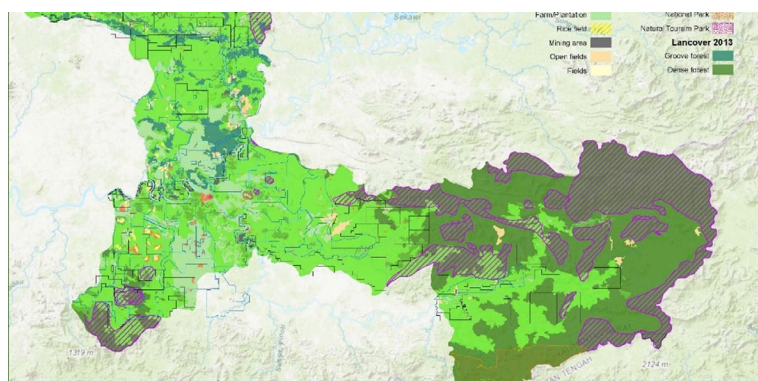
🗺️ Participatory Village Boundary Setting

PLUP mapped 363 villages in 17 districts across Indonesia. At the end of the Activity, 71% of PLUP villages were formally recognized by local government while the remainder either contained outstanding boundary disputes (42% of village leader respondents noted outstanding disputes at the time of the evaluation) or were still working their way through the government system for formal approval. Overall, the participatory Village Boundary Setting process was highly appreciated, though, when combined with the national government imposed technical requirements, was too costly for most sub-national governments to replicate in full. The evaluation found instances of district government and civil society organizations

adapting the process to fit within budget constraints. In addition, 69% of government survey respondents noted that PLUP village maps had supported the development of their district spatial plans. However, at the village level, only 25% of village respondents noted having access to hard or soft copies of village maps, and the evaluation found no direct link with Village Boundary Setting and development planning at the village level.

Land Office Capacity Building

Land office capacity-building included strengthening of land office operations, staff, geospatial data, and IT/hardware systems. Informational Management Systems were provided to 35 districts (5 districts did not receive a complete IMS due to delayed procurement) to support data sharing and utilization. However, partially due to policy changes by the government during and post PLUP, none were being utilized for data transmission in 2022, and the national server, also provided by the Activity, was offline since late 2021. Limited internet connectivity, staff turnover, budget constraints, and equipment failures all contributed to servers going offline. The inability of PLUP IMSs to integrate with government systems (including the national permitting portal) introduced post-Activity, limited overall usability. Despite these challenges, some government respondents noted they continued to work with PLUP data on land use, permits and licensing from local storage.

Geospatial data use when identifying certain areas
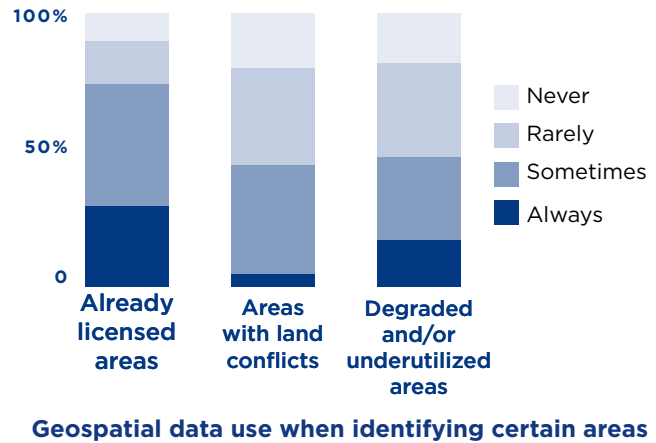
PLUP training was highly appreciated by government respondents for helping them understand and appreciate geospatial data administration. Several districts reported ongoing "geospatial clubs" initiated by contractors which featured discussions about tips and tricks for software use, and discussions about how data could be shared and used for planning in the district.

Barriers to Investment

While land office officials indicate that geospatial data use increased under PLUP, less than 30% of the ten GIS survey respondents noted always using spatial data to identify permit overlaps, and less than 20% always utilized data for identifying land conflicts or degraded and/or underutilized areas. All ten corporate respondents confirmed they do not rely on government data, PLUP or otherwise, for investment decisions. An analysis of investment trends in PLUP districts compared to non-PLUP districts within the same province shows no difference over the period from 2011-2021. 59% of government officials in a 2020 online survey suggested that PLUP had no impact on investments in their jurisdictions.

The introduction of the Online Single Submission shortly after PLUP altered the permitting processes and the direct utilization of PLUP data. In addition, land-based investments are increasingly difficult to make in some of the PLUP districts, due to the restrictions on land-use. One district noted only 10% of land was available, and it was highly fragmented and unsuitable for large-scale investment. Where land exploitation is lower, there remain other barriers including poor infrastructure and systems to support investors, which was outside the scope of the PLUP design.

🌐 Promotion of Sustainable Development

PLUP was intended to provide foundational inputs to support Compact investments under the Green Prosperity Facility. However, procurement delays under the Project caused PLUP to run concurrently with GP investments. Therefore, although PLUP provided components for effective land use and planning, there is little evidence to suggest any impact on land-use allocation, administration, planning, or management or any alterations in any the use of high conservation value or degraded land. Similarly, no significant variations in results according geography, sex/marginalized groups, implementer, or contract type were observed.

The focus of PLUP on government entities in land planning and use, rather than multi-stakeholder roles, limited the reach and relevance of PLUP. According to respondents, since PLUP worked largely on Village Boundary Setting and land-use planning at village and district levels, high conservation value land and degraded lands are usually outside the jurisdiction of the actors that it supported. Most high conservation value land and degraded lands are under the auspices of the Ministry of Environment and Forestry rather than local administrative jurisdictions. Therefore, subnational planning has limited bearing on land within the national forest estate.

MCC Learning

📖 MCC should be realistic with land investments that have dependencies on or with other non-land investments and ensure appropriately defined achievable project objectives informed by well-designed TOC.

📖 MCC should ensure sustainability planning for land and information system investments include securing multi-stakeholder buy-in and by de-risking mechanisms during project design.

📖 MCC should utilize comprehensive data quality review processes to determine data availability and accessibility before project implementation.

📖 When regulatory and technical reforms are needed, MCC should ensure dialogue and partnership with government agencies start very early in the project.

Evaluation Methods

This final evaluation is primarily an ex-post performance evaluation, occurring four years after the completion of the Activity, the timeline for which short- and medium- term outcomes were anticipated to be realized. Due to COVID-19, data collection consisted of an online survey in 2020 and remote and in-person activities in 10 sampled PLUP districts from November 2021 – January 2022.

Ex-post performance evaluation

Mixed-methods data collection

35 completed online surveys from district officials from 30 PLUP districts (2020).

27 in-person geospatial use surveys with government land officials in 10 sample districts.

Administrative and Data Documentation from **10** sampled districts.

114 remote qualitative interviews with:

83 local, district, regional and national government officials
10 former implementers
10 investors
11 other non-government stakeholders (e.g., civil society organizations)

16 terabytes of Spatial Data generated by PLUP.

200+ Implementer Reports and Project Documents.