



Vibrant Mountain Communities

Regional Development in Mountains:
Realizing Potentials, Tackling Disparities

Sustainable Mountain
Development Series

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The high-mountain town of Mestia (1 500 m asl) in the Upper Svaneti region of Georgia, a UNESCO World Heritage site. Agriculture is a pillar of the region's economy (GTW/shutterstock.com)

Bottom-up land use planning for equitable rural development in Lao PDR



Cornelia Hett, Phaythoun Pilakone, Kevin Kamp, Micah Ingalls and Andreas Heinimann

In the uplands of Laos, high poverty and insecure land tenure prevail. At the same time, traditional agriculture is being rapidly transformed into large-scale operations for commodity production and resource extraction. In this context, how can equitable economic development be achieved that both benefits family farmers and protects the environment? The participatory land use planning approach developed and implemented by the Agro-Biodiversity Initiative lays the foundations.

Villagers and government representatives in the Lao uplands working to implement FALUPAM (K. Kamp)

Three-quarters of Laos is mountainous and dominated by subsistence farming [1]. Most of the poor (87 percent in 2012/13) are rural, and poverty is concentrated in upland areas [2], where people generally lack formal land tenure rights [3]. Traditional swidden agriculture has resulted in a mosaic of natural forests, cultivated fields and forest fallows [4]. However, the Lao uplands are rapidly transforming due to (a) the economic integration into the Mekong region, (b) the national agenda promoting intensified, market-oriented agriculture and (c) the sparing of land for biodiversity conservation. The rural population benefits only marginally from these changes [5].

To promote pro-poor rural development, increase local tenure security and plan conservation, the Agro-Biodiversity Initiative (TABI) has developed a participatory forest and land use planning and management approach (FALUPAM) [6]. This bottom-up approach targets the village level and involves local residents and local/district-level government staff. FALUPAM is a multistage process that is implemented jointly over several years, enabling trust building, fair negotiation and adaptive change management.

During the various stages of FALUPAM, actors:

- Establish local land use planning committees and collect data on agrobiodiversity resources and socio-economy;
- Work in inter-village negotiations to identify landscape features and delineate village boundaries;
- Assess and map the current land use situation by considering all land uses, including land for swiddening, livestock grazing and collection of non-timber forest products;



" FALUPAM is good because it is participatory – if people are involved in the process, they follow the results – and because it involves detailed data collection and decreases conflict within and between villages."

Deputy Director, Agriculture and Forestry
Office of Luang Prabang Province [6]

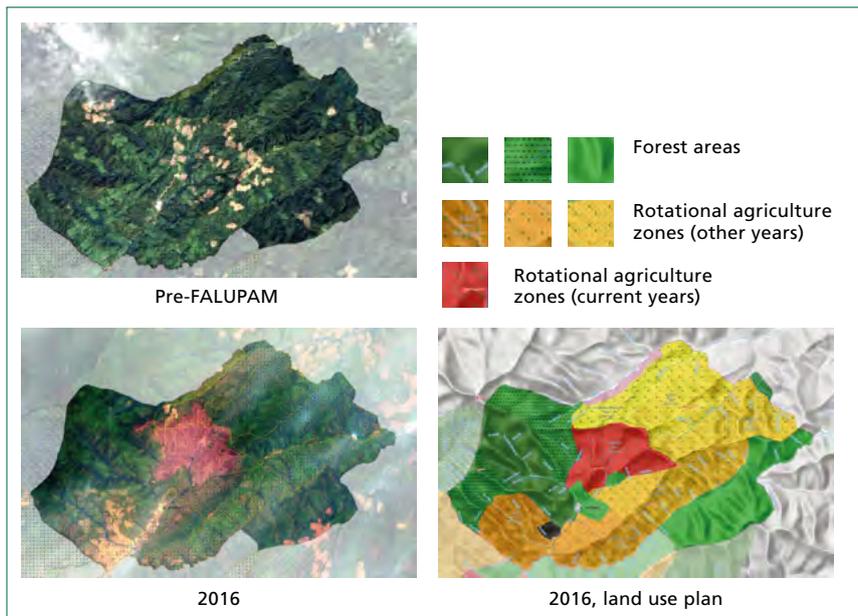


Figure 1. Example of implementation of a negotiated land use zoning plan in Thathong village, Northern Laos. Top: Starting situation, with swidden agricultural fields dispersed across the village territory. Bottom: Spatial clustering of agriculture and forest areas during the land use planning process led to larger continuous spatial units, which enables more efficient annual cropping of upland fields and promotes “tidiness” of landscapes. Source: modified from [3]

- Co-design future land use management and zoning plans by jointly negotiating development priorities and assessing trade-offs of different land use options, including the practice of clustering cropped upland fields (see Figure 1);
- Implement the plans, monitor the outcomes and, based on the outcomes, revise and update the plans.

The land use plans created under FALUPAM have been instrumental in creating clarity on land tenure. They respect local and customary tenure and are spatially precise in their clear definition of land use categories. The plans have also been recognized at higher administrative levels, making them the foundation for further development planning.

For the villages, the benefits of FALUPAM have been:

- **Economic:** The clustering of cropping land has led to improved land management and thus economies of scale for agricultural production. It has also secured the production of high-value (but long-rotation) agrobiodiversity crops (e.g. benzoin trees, or tea from ancient tea forests) by delineating forests for agricultural use;
- **Social:** Clustering the upland fields has strengthened village social networks through collaboration and coordination on land use. It has increased villagers’ negotiation capacity towards outsiders and reduced inner and inter-village land use conflicts. FALUPAM facilitated a constructive dialogue on the politically sensitive topic of swiddening, with government representatives from district and provincial levels;
- **Environmental:** Forest fires were reduced through more effective cooperation on fire control. The clearly defined areas of forest conservation and restricted use, also across village boundaries, led to larger continuous natural habitats and wildlife corridors. FALUPAM directly increased conservation forest areas by 9.5 percent and has contributed to the national strategy of increasing forest cover nationwide.

FALUPAM has been implemented in over 300 villages in 13 provinces. Training was provided to more than 70 government staff, faculty members and students at the National University, and staff of other major rural development projects.

- Land use planning is important to drive self-determined economic development at village level and simultaneously promote ecosystem services that are relevant for all levels, from local to global.
- To be effective, land use planning should provide space for the engagement of villagers, representatives of neighbouring villages and representatives of different levels and sectors of government. To build trust and ownership, land use planning should be carried out in an iterative way and over a long period.
- Adaptive change management is crucial to address challenges as they arise, and to take advantage of unforeseen opportunities. This means that land use zoning plans should continue to be evaluated and monitored – and, if needed, adapted.

The Agro-Biodiversity Initiative (TABI)

TABI is a joint programme of the Ministry of Agriculture and Forestry of the Government of Lao PDR and the Swiss Agency for Development and Cooperation. It aims to improve the livelihoods and incomes of local upland farmers by developing and facilitating opportunities to protect and enhance agrobiodiversity.

An evaluation in 200 villages showed that 66 percent of the villages followed the FALUPAM land use plans closely. One-quarter had minor difficulties in respecting the forest boundaries, and only 9 percent largely failed to comply with the plans. Reasons for failure included (a) unforeseen major land use interventions (e.g. granting of concessions at higher administrative levels) and (b) cultural constraints preventing clustering of upland fields [3].

References and further reading

Note: URLs were last checked on 23 September 2020.

- [1] Epprecht, M., Weber, A.-K., Bernhard, R., Keoka, K., Saphangthong, T., Manivong, V., Ingxay, P., Vongsamphanh, P., Bosoni, N., Hanephom, S., Vanmeexai, P., Kaungbounhieng, A., Sisouvan, H., Khounthikoumman, S., Xaichounorxa, P., Ingalls, M., Nanhthavong, V., Lu, J., Norasingh, I., Wiesmann, U. & Breu, T. 2018. *Atlas of agriculture in the Lao PDR: Patterns and trends between 1999 & 2011*. Bern, Switzerland, Centre for Development and Environment, University of Bern and Ministry of Agriculture and Forestry, Lao PDR, with Bern Open Publishing. <https://boris.unibe.ch/116598/1/Atlas%20of%20Agriculture%20Book.pdf>.
- [2] The World Bank. 2017. Lao PDR: Systematic country diagnostic: Priorities for ending poverty and boosting shared prosperity. Washington, DC, USA, The World Bank. <http://documents.worldbank.org/curated/en/983001490107755004/pdf/Lao-PDR-SCD-03-09-2017-03162017.pdf>.
- [3] Ingalls, M., Hett, C., Thanasack, P., Phouyyavong, K., Bernhard, R., Chanthasumlet, Y. & Philakone, P. 2019. *New directions for participatory land use planning: Can bottom-up approaches achieve a win-win for sustainable development and forest conservation?* NAFRI Research Brief No. 002. Vientiane, Lao PDR, Ministry of Agriculture and Forestry and Centre for Development and Environment, University of Bern. <http://dx.doi.org/10.13140/RG.2.2.25407.05283>.
- [4] Hett, C., Castella, J.-C., Heinimann, A., Messerli, P. & Pfund, J.-L. 2012. A landscape mosaics approach for characterizing swidden systems from a REDD+ perspective. *Applied Geography*, 32(2): 608–618. Oxford, UK, Elsevier. <https://doi.org/10.1016/j.apgeog.2011.07.011>.
- [5] Hett, C., Nanhthavong, V., Hanephom, S., Phommachanh, A., Sidavong, B., Phouangphet, K., Epprecht, M., Lu, J., Shattuck, A., Ingalls, M., Bernhard, R., Phathitmixay, S., Phomphakdy, C. & Heinimann, A. 2020 (forthcoming). *Land deals in the Lao PDR: A characterization of investments in land and their impacts*. Bern, Switzerland, Bern Open Publishing. <https://boris.unibe.ch/133115>.
- [6] Dwyer, M. & Dejvongsa, V. 2017. *Forest and agricultural land use planning: A strategic analysis of the TABI approach in Lao PDR*. <https://tinyurl.com/y2br88rl>.

TABI (The Agro-Biodiversity Initiative). No date. *TABI* (website). www.tabi.la.

Pha Khao Lao. No date. *The Pha Khao Lao agrobiodiversity resource platform* (website). <https://www.phakhaolao.la/en/home>.

Heinimann, A., Flint, C., Bernhard, R. & Hett, C. 2017. Putting upland agriculture on the map: The TABI experience in Laos. In M. Cairns, ed. *Shifting cultivation policies: Balancing environmental and social sustainability*, pp. 819–835. Wallingford, UK, CAB.

Victor, M. & Rasachack, K. 2018. *Putting upland agriculture and biodiversity on the map: An overview of the Forest and Agriculture Land Use Planning and Management (FALUPAM) Approach*. Vientiane, Lao PDR, The Agro-Biodiversity Initiative, National Agriculture and Forestry Research Institute, Department of Agriculture Land Management. <https://www.tabi.la/download/181/home/2879/forestry-and-agriculture-land-use-planing-brochure-2.pdf>.

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