



PARTICIPATORY LAND USE PLANNING (PLUP)

As part of the third component of the project “Institutional strengthening and capacity building at village and District levels”, Participatory Land Use Planning (PLUP) was implemented at village level by a team composed of technicians from District offices (of Agriculture and Forestry—DAFO— and of Land Management—DLMA).

This activity was implemented through a partnership between Agrisud and IRD-CIFOR-NAFRI over the year 2011. In 2010, the IRD-CIFOR-NAFRI team had developed an innovative PLUP method adapted to the local situation in Viengkham District, with landscapes dominated by subsistence-based shifting agriculture. The main challenge was to insure participation of the villagers and their full understanding of the planning process. Through partnership with Agrisud, the participatory approach was improved, adding village monograph and Village Action Plan (VAP) as to prepare extension activities. A PLUP implementation team composed of district staff was gradually made autonomous.

OBJECTIVES

- ☑ Build capacity of District staff to facilitate rural development planning by conducting diagnostic studies, Participatory Land Use Planning and Village Action Plans,
- ☑ Create opportunities for the villagers to express their needs and to propose development activities adapted to their real situation, empower villagers in becoming informed negotiators in planning processes,
- ☑ Set-up clear boundaries for village territories to avoid village conflicts in the future,
- ☑ Decide on conservation, protection and production forest areas with the villagers and set-up village regulations,
- ☑ Securing land tenure rights.

Achievements in 2011

- * A team of District technicians trained to implement PLUP autonomously,
- * PLUPs done in 19 villages,
- * 19 village development committees set-up: 228 persons trained in PLUP

Busting PLUP myths

Myth 1: PLUP is a lengthy, complex process which discourages active participation of villagers.

Reality: A preparation is needed before engaging with villagers in PLUP.

Understanding of the local farming systems and livelihoods is essential to adapt to local circumstances.

Then, participatory methods make the interactions with villagers lively and fun.

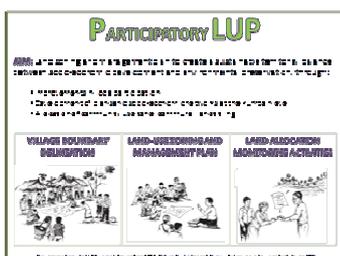
STEPS FOR IMPLEMENTATION

1. Village meeting and Village Land Management Committee

The PLUP starts with a village meeting. An opening ceremony is organized with the District Authorities (representatives of the Governor Office, DAFO, DLMA and Village cluster) as to officialise the process to the villagers’ eyes.

After the introductory speeches, the District team explains to the villagers the objectives of PLUP and the successive steps that will be done in their village over one week. Posters are used to illustrate the different activities.

During the meeting, election takes place to select the 12 members of the Village Land Management Committee (VLMC) who will do the PLUP with the District team. Great attention is taken to balance gender, ethnicity, age, social and economic status in the VLMC composition. Enough time should be dedicated to carefully select VLMC members.



“This approach puts the keys of development in the hands of local communities and avoids engaging them into endless assistance programs”

Governor of Viengkham district - 2011



Busting PLUP myths

Myth 2: PLUP implementation is expensive.

Reality: Cost per village for equipments and consumables is about USD100. Staff related expenses, compensations for VLMC members and transportation represent the bulk of the PLUP costs.

2. Socioeconomic data collection

During this phase, District technicians collect village socioeconomic data through exhaustive household surveys and focus group discussions with the local authorities and members of the VLMC. Information about the village history and development issues (problem census) is collected and synthesized into a village monograph report.

Data are processed into parameters for PLUP implementation and used to prioritize issues to be considered during land zoning and design of a village development plan.

Notions such as biodiversity and carbon sequestration are also introduced to the villagers so that conservation-development trade offs can be discussed during PLUP.

3. Building a 3D model map of the village

To build a 3D model of the village landscape, the team uses a topographic map printed on a A0 paper (80 cm x 80 cm). Layers of cardboard are cut along the contour lines and pasted one after another onto the base board beginning with the lowest altitude and finishing with the highest altitude. Sticky tape and plaster bandage strips are laid over the relief model to create an overall smooth surface.

The 3D model map is used for village boundary delineation and land zoning.



Advantages and limitations of the 3D model map

- ☺ Villagers can “read” the map easily and recognize the localisation of mountains, rivers, village area... which enhances their participation and comprehension,
- ☺ A group of six people are able to construct a 3D model from cardboard and plaster materials in only one day,
- ☺ Information on 3D map can be transposed to digital maps on GIS through on-screen digitizing of photographs,
- ☹ Relief models are only useful in mountainous areas. 2D maps are more adapted to relatively flat regions.



4. Village boundaries delineation and GPS points

To delineate village boundaries on the 3D model, representatives of the neighbouring villages are invited so that they can discuss the boundaries with the village committee. When settled, GPS points are taken and an official agreement is edited and signed by the village chiefs.

During this process, many land conflicts have been resolved between neighbouring villages because, for the first time, the two parties involved were invited to discuss their disagreements and encouraged to negotiate, with the help of the District team playing the role of mediator.



Some testimonies:

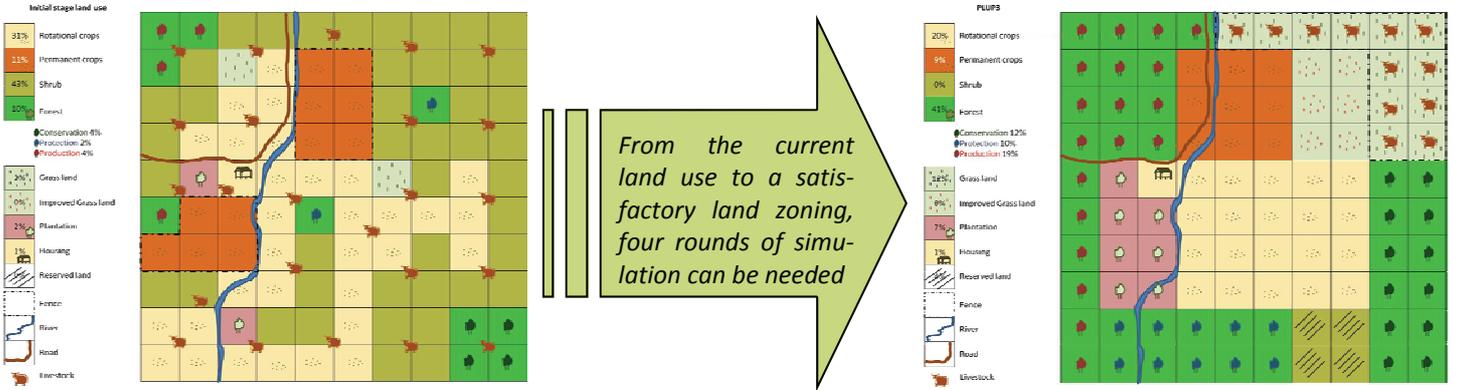
“The 3D model map is very easy to read. It looks like a view from a plane” (village committee member, Vang Heung village)

“Before, the production areas were dispersed in the territory, and limits were not clearly defined between the different villages. Now everything is clear. It is better that way. There is no more conflicts between neighbouring villages and everyone knows our village boundaries” (committee member, Vangbong village)



5. Role playing game: "PLUP Fiction"

"PLUP fiction" is a learning device for land zoning and local development planning. Based on a virtual village territory visualized on a board, members of the committee learn how to make informed decisions about land zoning according to the needs of different stakeholders, including 4 different household types, conservationists and developers. Each proposition is made on a transparent tracing paper, then analysed and discussed considering its economic and environmental impacts.



6. Participatory Land Zoning

Using the method learned during the landscape simulation game, the members of the Village Land Management committee negotiate their own land use zoning on the 3D model representing their village landscape.

They first design their current land use by using coloured pins and string on the 3D model. Then, land zones are digitized, analysed and compared to the needs expressed by the villagers in their Village Action Plan, i.e. village economic development, labour force availability, rice self-sufficiency, livestock carrying capacity, preservation of ecosystems services such as biodiversity and carbon (see p.6).

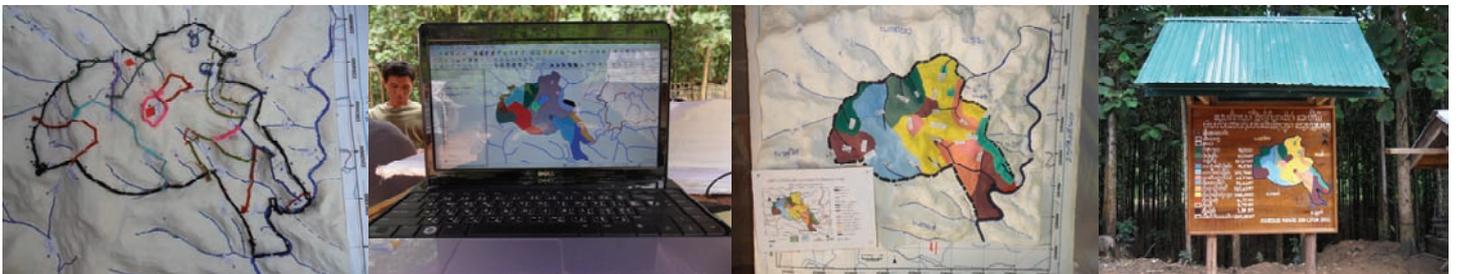
New land use plans are designed successively until all the committee members are satisfied. The iterative zoning process is facilitated by the use of a GIS software (QGIS) and an Excel based tool.

At the end, the 3D model is painted with the new land use plan. The digital map is projected on a wooden board where it is reproduced before it is posted in the centre of the village.

Busting PLUP myths

Myth 3: Uneducated villagers can not take part in the PLUP.

Reality: Our experience has shown that anyone can learn the art of land zoning from playing 'PLUP Fiction'.



Mr Bounkheud, Village Committee member, Phonkham village:

"Before, we already had land zones in our village, but now we know how to do it correctly, without destroying the forest. I want everyone to understand that for raising the livestock, you have to use the areas that have been decided for that. Crops have to be cultivated in the designated areas as well. As for the protection forest or the conservation forest, you can't go here or there to cut wood. If you do so, we, the three members of the committee, will inflict you fees. We're watching closely that the different species of trees that exist in our forests are not going to disappear, otherwise nothing will be left for the future generations [...] and that is our responsibility."

Busting PLUP myths

Myth 4: Local people know better than anyone else what is good for them. So no need for external intervention to support planning processes.

Reality: While local people know well their own situation they often do not know how to collectively design a better future for the whole village through land use planning.

The proposed PLUP method help them to visualize land related issues, to assess the potential impact of alternative scenarios before they make decision.

7. Village Land management rules and PLUP agreement

Land use management rules defined during the PLUP process mainly concern forestland. The rules regulates what is permitted and what is not in some specific land use zones. Sanctions and fees are decided by the committee members to penalize those who wouldn't respect the rules. The fees collected are transferred to the village community fund.

Each member of the committee is assigned a specific task within each of the three groups that compose the VLMC: agriculture land management group (3 persons), forest management group (3 persons) and group managing relationships with neighbouring villages (6 persons).

The PLUP process and results are synthesized in a document that includes: (i) the village boundary agreement, (ii) the composition of the Village Land Management committee, (iii) description of the land use zones, the land use management rules, the final land use plan map and (iv) the village action plan. This document is signed by the District Governor, the heads of DAFO and DLMA, the head of the village cluster and the village head. Each partner receives a signed hard copy of the document. All the computer data and soft copies are kept at the DAFO and DLMA offices, as well as with Agrisud and IRD-CIFOR-NAFRI for further upload in a national-level PLUP database.

8. Presentation of PLUP results to the whole village

The last day of the PLUP process, a closing ceremony is attended by the whole village. Members of the VLMC present to their community the work they have done during the PLUP with the District team, as well as the decisions that have been made.

The day before, committee members receive a small training from the District team on how to present the results to their fellow villagers.

The day of the ceremony, the District Authorities (Governor office, DAFO, DLMA and Village Cluster representatives) are invited to participate and officialise the decisions made by the committee. Representatives of the neighbouring villages are also present. It is important that all decisions made during the PLUP are known by the local community and are fully endorsed by the District.



OVERCOMING THE SHORTCOMINGS OF FORMER LAND USE PLANNING APPROACHES

Main LUP shortcomings	How they are tackled in PLUP
* Lack of participation of village communities.	* Role play game and 3D model enhance participation of local communities in land use planning. Proper information is provided upfront to avoid misunderstanding about the purpose of the planning exercise. For example villagers should understand that data will not be used to collect taxes. Otherwise, they systematically minimize the number of their assets and therefore bias the analysis.
* Land use plans are generally not implemented.	* PLUP process should lead to extension activities through a village action plan formulated by the villagers according to their needs and potentialities.
* Nothing happen after land use planning except the nice wooden board with the map.	* Beside follow-up extension activities included in the village action plan, land zones should be clearly demarcated in the village using poles and landmarks so that everyone know the limits and can manage natural resources accordingly.
* All data and knowledge generated during LUP get rapidly lost afterwards.	* All the village information generated during the participatory land use planning process is synthesized in an accessible format. A village monograph presents a complete overview of the village from the villagers own perspective. This knowledge is relevant to further development activities and monitoring.

Busting PLUP myths

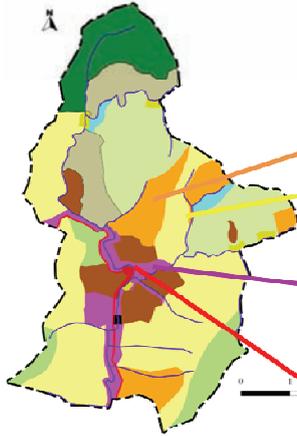
Myth 5: It is not clear how villagers can benefit from their participation in PLUP.

Reality: PLUP is an empowerment process for villagers who get trained as land use negotiators. They learn the real value of their lands and labour.

With that in mind, they are able to make rational decisions about land management, development activities and forest conservation. They calculate opportunity costs before seizing or rejecting offers from the district authorities, development agencies, or business investors.

9. Village Action Plan (VAP)

The Village Action Plan is the translation of the land use plan into concrete extension activities. Starting with the problem census, the committee members are encouraged to analyse the issues their village faces and to reflect on the possibilities and potentialities they have to overcome these issues. The result of this reflection is the Village Action Plan which list the activities the villagers wish for to develop their village. The District facilitators help the villagers to keep their action plans realistic and feasible. Being themselves technicians from DAFO, they have technical knowledge and can proposed extension activities that fit the village's needs.



Example of Village Action Plan linked to land use planning
Houay Thong village

Land Use	Planned activities
Permanent crop	Want to fence permanent crop area with barbwire.
Rotational crop	Want to plant new crops to feed animals or improve the soil. Are not interested in improved fallows because.
Plantation	Wish to plant coffee and castor beans and increase teak plantations.
Improve pasture	Want to create an improved pasture area.
Paddy	Improved irrigation for the existing paddy area; Build new paddy areas up to 9.6 ha.
Garden	Would like to increase and improve home gardening.

Some activities proposed within the VAP can also be realized by the villagers without external support.

Demarcation of land zones and plot fencing (i.e. to avoid livestock damages to crops) are concrete activities to start with when implementing PLUP.

Extension activities are essential to the effective implementation of a land use plan that provides a coherent framework for extension activities. Our experience in Viengkham district shows that the Village Action Plans can play an integrative role for developing activities with the multiple projects that support DAFO. Addressing the priority issues of the village communities along the development pathways they have planned themselves increases the impact of development interventions. It is important to involve both villagers and extension agents in the monitoring of the land use plan (including Village Action Plan) to make sure that the agreements made during the planning sessions are translated into concrete actions.



In 2011, some activities proposed in village action plans were supported by Agrisud project.

For example, problem census showed that the women considered that having too many children was a burden. They asked for information about family planning and birth control. Through a partnership with Lao Women Union and the District Health Office village trainings and sensitization sessions were proposed on that specific subject.

Busting PLUP myths

Myth 6: PLUP process is very complicated. It requires a dedicated project to support District staff all along the implementation.

Reality: The District staff who formed the PLUP team did not have any previous experience of PLUP implementation. They also lacked computer skills, and have never used GIS software before.

After only four months of field training (learning by doing), they were able to perform the all process from A to Z in 17 villages, all by themselves.

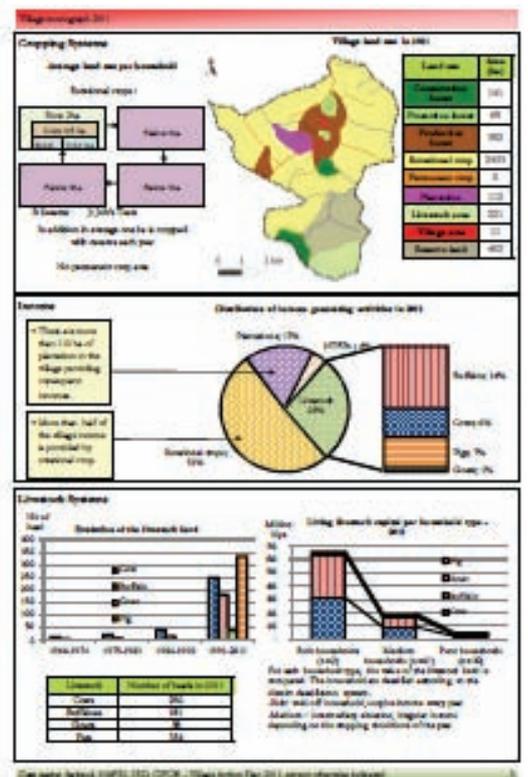
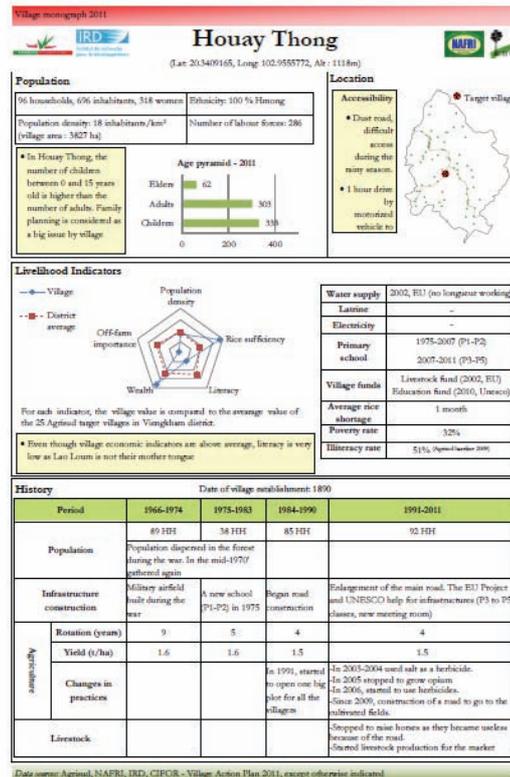


10. Data storage: the Village Monograph

The village monograph takes the form of a 4-pages-booklet. This format has been developed to be easy to read and to give a immediate information about the situation of the village at the time of PLUP implementation.

The monograph contains data regarding geographic situation, accessibility, ethnic composition, population growth, education and health, village history, problem census, economic activities, as well as the current land use and the new land use plan linked to the Village Action Plan.

The socioeconomic data collected during the PLUP process are entered into an Excel spreadsheet that automatically generates the required charts and graphs. Then, these outputs are copied and pasted in a monograph template. Using this model, the village monographs can be easily updated when new data are available.



The village monographs can be used by development projects and extension programs to select target villages, understand local issues and on-going changes in order to design relevant action plans. Available at the District offices, at the village level and on the Internet, the monographs can be used as empirical materials to design new project well adapted to local circumstances.

For further information:

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- Lestrelin G., Bourgoin J., Bouahom B., Castella J.C. (2011) Measuring participation: Case studies on village land use planning in northern Lao PDR. *Applied Geography* 31: 950-958.
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- NAFRI (2012) Handbook on Participatory Land Use Planning. Methods and tools developed and tested in Viengkham District, Luang Prabang Province. NAFRI-IRD-CIFOR, Vientiane, Lao PDR. Available in English and Lao languages.

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