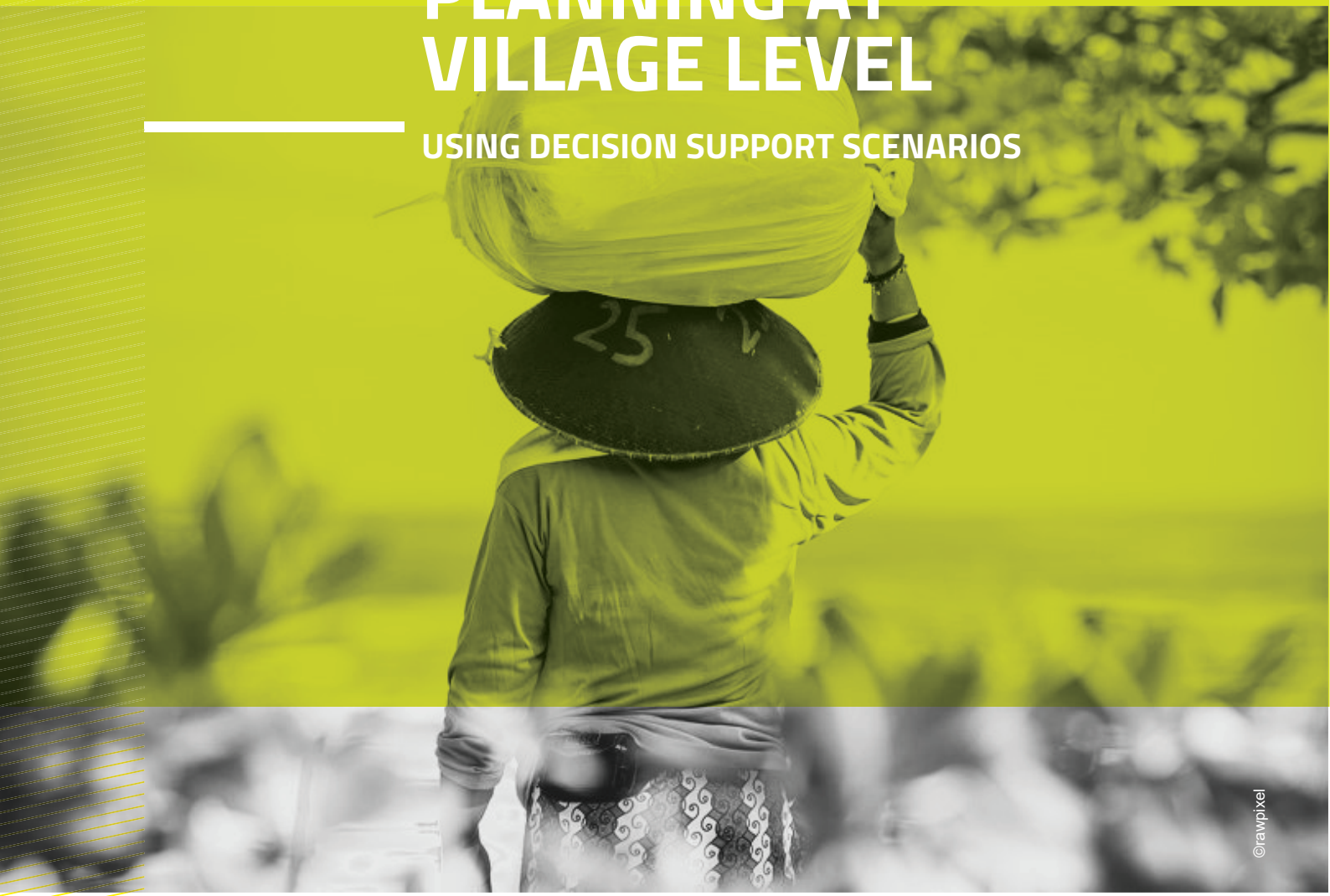
Food and Agriculture Organization of the United Nations

FORESIGHT PLANNING AT VILLAGE LEVEL

USING DECISION SUPPORT SCENARIOS



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CCAFS

Utrecht University

FORESIGHT PLANNING AT VILLAGE LEVEL

USING DECISION SUPPORT SCENARIOS

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TABLE OF CONTENTS

ABOUT THIS HANDBOOK

This handbook aims at providing guidance and resource to implement foresight planning at the village level. This handbook presents a full exercise to be conducted at the field level. The exercise is divided in five steps. The exercise is designed as an added section to the Participatory Forest and Agricultural Land Use Planning, Allocation and Management (pFALUPAM) manual.

The participatory forest and agricultural land use planning is carried out with the involvement of a broad set of local stakeholders, i.e., relevant offices from all sectors including the village administration authority, village organizations consisting of both men and women, and different ethnic groups. These local stakeholders participate in the consultation and decision-making process together with technical teams to develop a multi-year plan for agricultural land use and management and forest conservation and management within the village.

In Lao PDR, the participatory forest and agricultural land use planning (pFALUPAM) programme has been implemented in several target villages of provinces and districts covering approximately 10 percentage of the country.

In 2020, sixteen decision-support scenarios, called SAMIS contextual scenarios, were developed by 26 participants of the advanced training "Capacity Development on Decision Support Scenarios Design and Uses to Apply Future of Agro-Ecologcial Zoning (AEZ) Suitability and Yield Maps to Agricultural Planning in Lao PDR" provided by the University Utrecht. Participants were from five key departments of the MAF - https://cgspace.cgiar.org/handle/10568/111514. These scenarios were created through the identification and combination of key drivers of change, as identified by the participants.

The designing scopes in this foresight planning exercise are to test and improve the pFALUPAM plan using the AEZ maps recently developed by DALaM. By completing this foresight planning excercise the list of interventions proposed under the pFALUPAM will be reviewed to ensure their practicality, specificity and relevance against multiple futures scenarios..

RATIONALE

Why foresight and scenario planning matters

Foresight is a term used for a collection of methods that aim to explore what the future might bring – with most foresight approaches focusing on the use of multiple alternative scenarios to explore future directions of multiple drivers of change

(Habegger 2010, Bourgeois et al. 2012).

Planning exercises for the future should be mindful of the context for which plans are being made. Food systems offer particularly complex planning contexts undergoing constant change, threads, and high level of uncertainties, where forest and agricultural land use are key areas of intervention for transformative and resilient agriculture.

Exploratory scenarios give an understanding of how systems interact, and what changes might occur in the years or decades to come. Anticipatory scenarios or decision–support scenarios develop a pathway to pre-determined futures that vary according to their desirability.

From Vervoort et al. (2010): "If scenarios are to be impactful, creating change in individuals and organizations, they have to be emotionally engaging (Xiang and Clarke 2003). Schwarz (1991) has said that scenarios should "keep the decision-makers up at night". The power of scenarios to engage is partly a matter of content – do the scenarios foreground the concerns and interests of those who are meant to use them? When scenario processes are reflexive, they can explore futures that challenge deep assumptions in their participants; this can make them more engaging.

Farmers are harvesting/processing cassava yied in Bolikhamxay province

Setting the foresight planning exercise

The overall exercise will take up to four hours with a minimum of fifteen minutes break. The location should be ideally close to the houses of the participants in a covered and quiet location to mitigate the heat or rain. It is highly suggested that water and snacks are freely available for the participants of the exercise. It is encouraged that the persons to be contacted to join the foresight planning exercise are the same people identified last year for producing the plan. In regards, to the facilitators of this excercise it is suggested that the facilitator demonstrated experience in participatory and foresight methods with field experience. **The main aim of the exercise is to test the robustness of the village plan and to improve or provide more detail where needed.** The foresight planning exercise is divided in five steps: (1) Contextualise the scenarios at village level, (2) Naming the scenarios (3) Testing of village goals, formulating village vision 2030 (4) Role Play and action plan, and (5) Formulation of final recommendations.

Communication and support materials

Developing communication support is key in this exercise. Therefore, the pFALUPAM plan shall be made available in hard copy for the participants and plasticised A2 or A3 together with the printing of the relevant AEZ maps. Land use maps presented at the training site. For the foresight exercise, two of the future scenarios developed during the training course are used to visualise plausible futures in 2030. The description of these scenarios should also be made available in hard copy. Please refer to the Annex Workbook to access all materials to be printed for the foresight planning excercise.

OVERVIEW OF THE DECISION SUPPORT SCENARIOS | SAMIS contextual scenarios

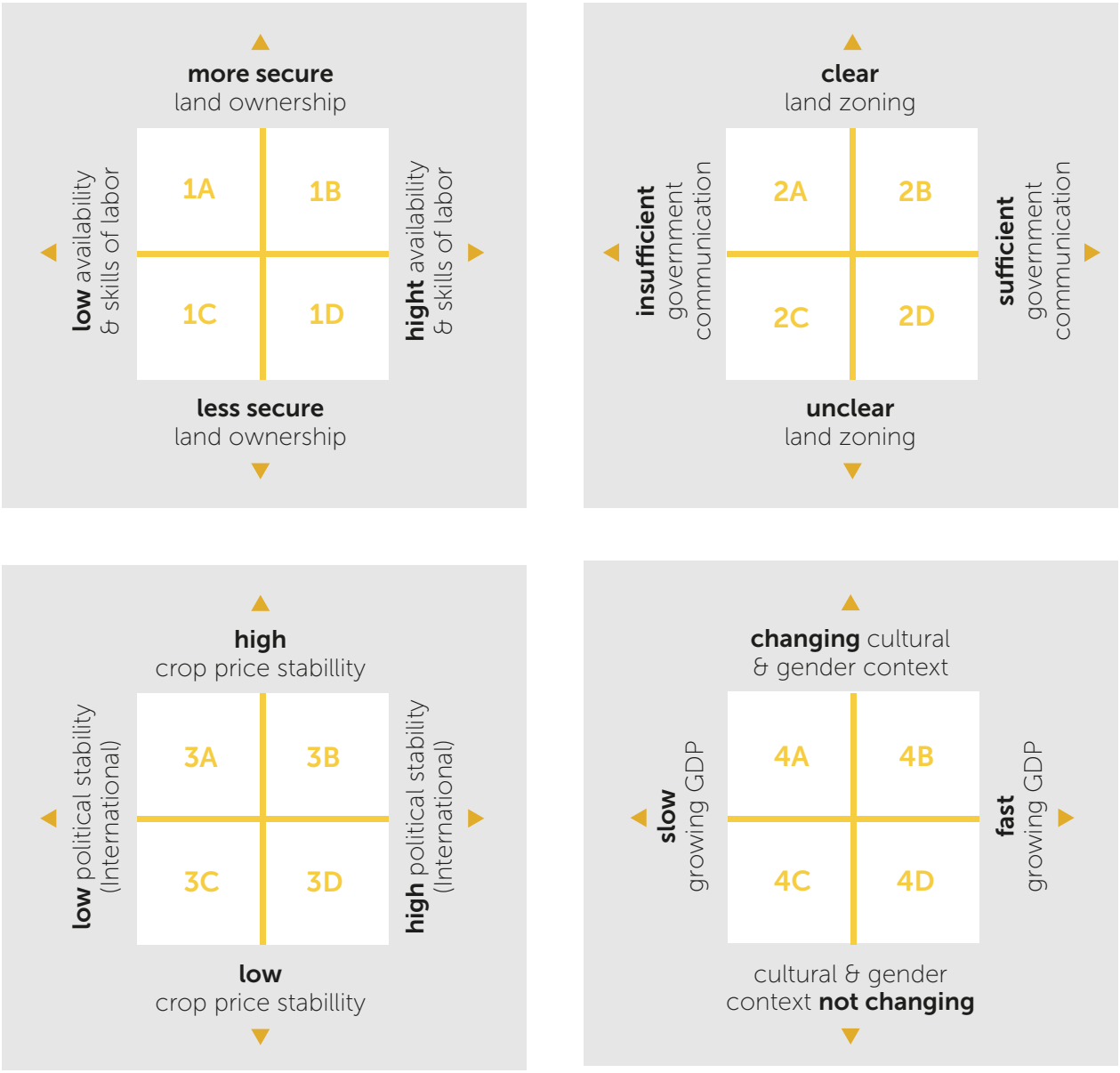

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Figure 1. Overview of the SAMIS contextual scenarios

The scenarios that have been identified to be used to test the goals of the pFALUPAM are scenario 1d (Less secure land ownership & high availability and skills of labour forces, figure 1) and 2a (clear land zoning & insufficient communication between government actors, figure 2).

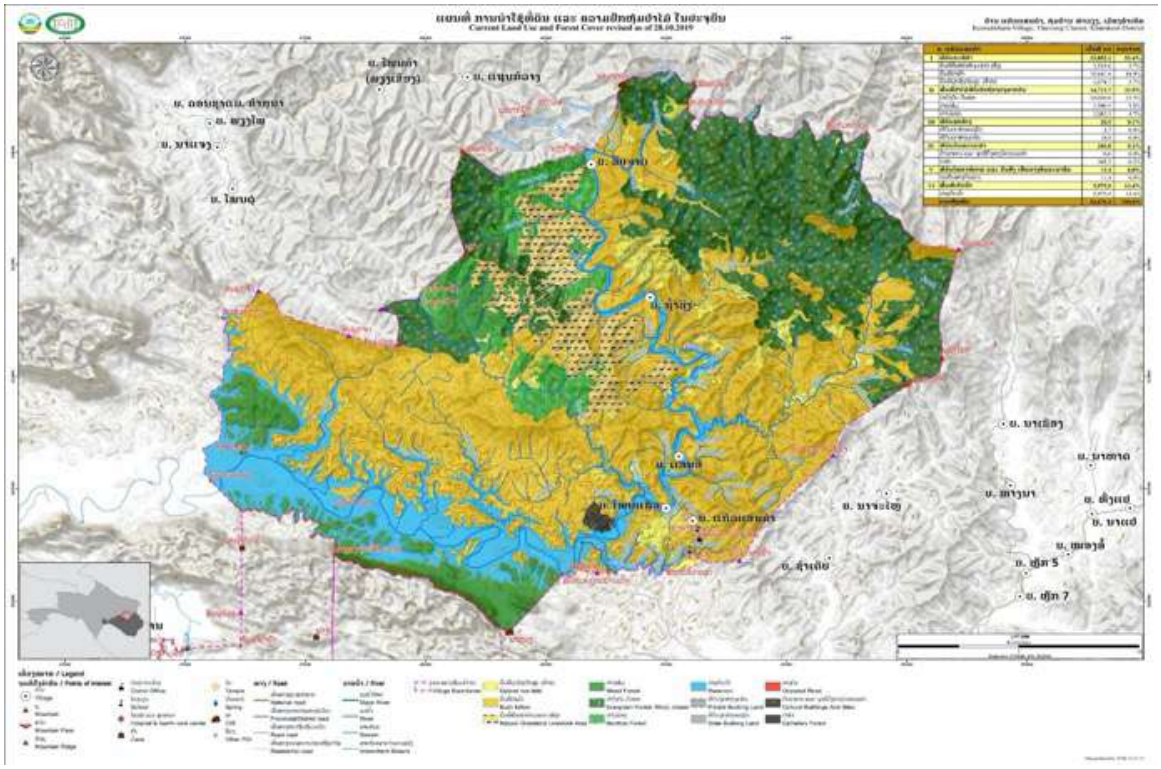
The scenario narratives will be available in Lao and printed for the exercise, to enable a discussion among the participants. In the annex, also called "WORKBOOK" all documents to be printed to support all the steps of the foresight planning exercise.

VILLAGE MAPS

(All maps will be provided by DALAM)

EXAMPLE - KEOSAENKHAM VILLAGE

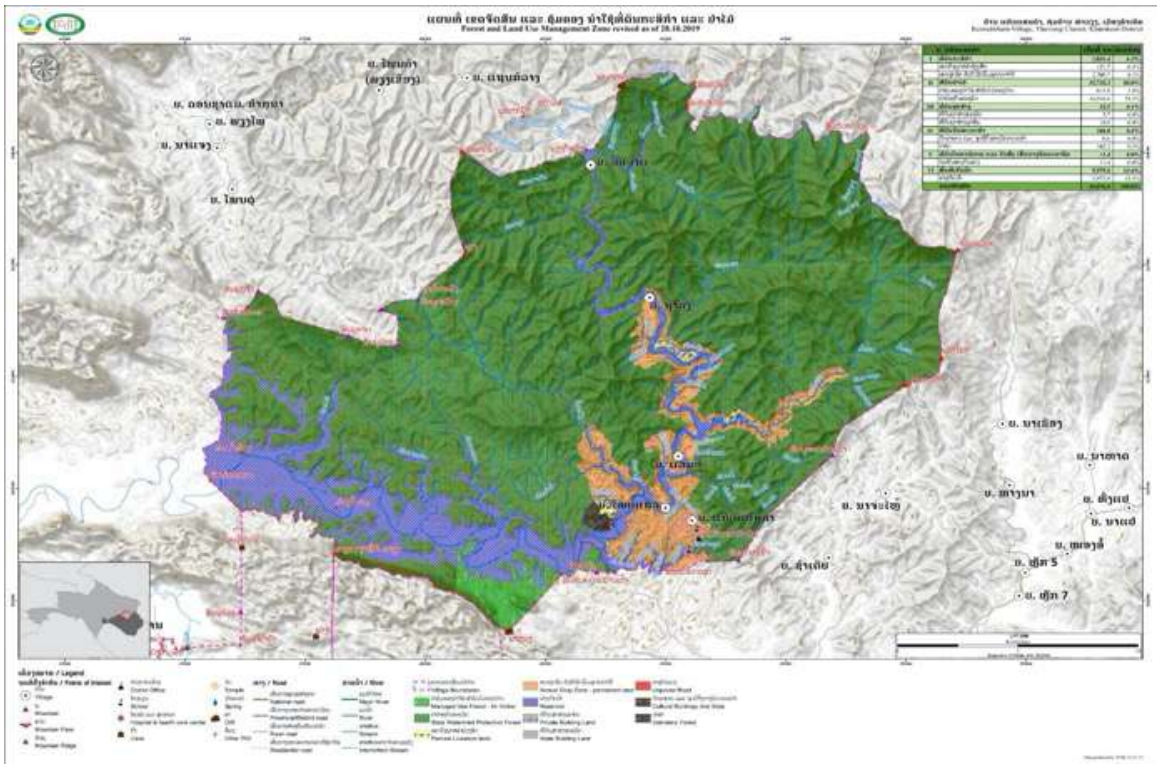
Current land use and forest cover map



Khamkeuth district, Bolikhamxay province map by Department of Agriculture Land Management Ministry of Agriculture and Forestry, 2022.

Administrative boundaries of Lao People Democratic Republic, National Geographic Department, 2013.

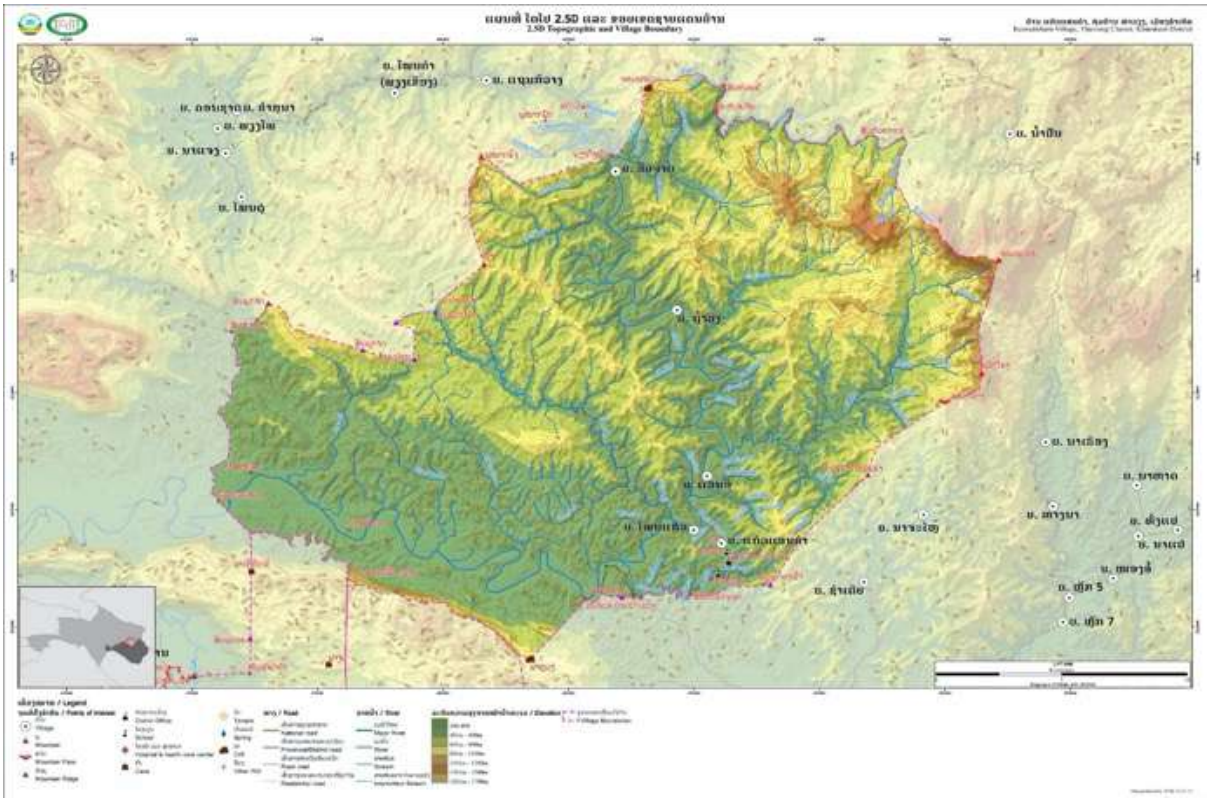
Forest and land use management zone



Khamkeuth district, Bolikhamxay province map by Department of Agriculture Land Management Ministry of Agriculture and Forestry, 2022.

Administrative boundaries of Lao People Democratic Republic, National Geographic Department, 2013.

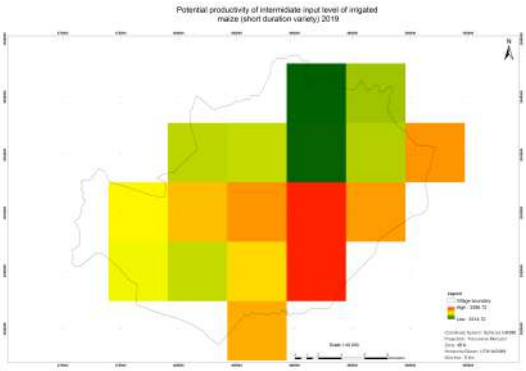
Village boundary and basic map



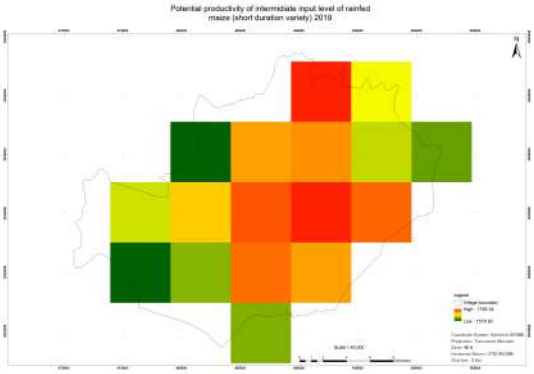
Khamkeuth district, Bolikhamxay province map by Department of Agriculture Land Management Ministry of Agriculture and Forestry, 2022.

Administrative boundaries of Lao People Democratic Republic, National Geographic Department, 2013.

Potential productivity of irrigated maize



Potential productivity of rainfed maize



Prepared by the authors

STEP 1 FORESIGHT PLANNING EXERCISE AT VILLAGE LEVEL

CONTEXTUALISE THE SCENARIOS AT VILLAGE LEVEL

- **Summary:** This exercise aims at reformulating the two scenarios around the key drivers of changes identified in last year workshop to provide more context specific narratives that will support the exercise.
- **Purpose:** To familiarise the participants with the scenarios and enable them to think of multiple plausible futures of their villages.
- **Time:** 45 min
- **Difficulty:** Moderate / Hard
- **How it works:** The participants adjust the scenario narratives to the current local village situation. Table 1 containing the most impactful and uncertain drivers of change, as identified during the foresight training, are used as an outline

MOST IMPACTFUL DRIVERS

- **Use of chemical inputs**
- **Land ownership**

Other drivers:

- Development in GDP
- Soil degradation and loss of soil fertility
- Changes in urban population
- Changes in rural population
- Pollution due to agriculture inputs
- Land use planning by the government
- Farmer income
- Area of agricultural land
- Access of farmers to infrastructure
- Education level

MOST UNCERTAIN DRIVERS

- **Food security**
- **Land use planning by government**
- **Development of GDP**

Other drivers:

- Crop price stability / fluctuations
- Cultural differences
- Land ownership
- Availability of labor forces
- Farmer resilience to natural disasters
- Political stability
- Communication between government
- Gender equality

Table 1. Key drivers of changes, scenarios advanced training 2020

They will then complete the following bellow scenarios narratives:

SCENARIO 1D *Less secure land ownership & high availability and skills of labor forces*

AGRICULTURE IN NEED OF A RESCUE TEAM

In 2030, crop production of ..... (main crops in this region) is highly specialised in Lao PDR and specially in the province ..... (name the province of the village used in this exercise). The produced food (give some example of key crops and agriculture products.....) are recognised nationally for its high quality contributing to put on the map village such as XXXX which won different national prizes. However the quantities produced by the farmers are insufficient to respond to the demand coming from different regions of Lao PDR. This is due to the insecure land ownership of farmers as over the years multiple land issues raised such as.....(give at least two examples of raising issues).

Meanwhile the production levels of basic commodities such as rice to maintain food security cannot be kept stable and the youngsters of the village are seeking new opportunities in the main cities as incomes decrease. Please describe the labor force still available in 2030. Key Agricultural production areas, green baskets in XXX (village or province to be named) are being left empty due to land degradation related to the use of fertilisers and pesticides (describe the type of uses). To mitigate the flux of migration the government is encouraging agro-industries to build factories in non-permanent lands. Those large lands areas are being taken by agro-industries doing intensive agriculture such as XXXX (name intensive farming practices) that decreased even more the soil fertility and have a tragic impact on the environment. Despite those big factories that have been located in the XXX (location) - people are still migrating, as the modern agriculture is mainly mechanised and only two types of jobs are available - those that require almost no skill and paid badly or those that required degrees in science and research with high salaries (please precise who have those jobs) . As families are regularly out of food (describe crops and food price and its volatility) and income insecurity. There is a need to further improve public administration, especially laws, decrees and regulations (please precise the type of regulation needed)

SCENARIO 2A *Clear land zoning & insufficient communication between government actors*

HAPPY FARMERS

In 2030, weak governmental management, relationship capacity and low technical and developmental support, such as ..... (name examples of issues specific for this case) has lead to delays in accessing local information and delivering climate hazard information to farmers and people on the ground in ..... (name province and village). The level of knowledge about modern techniques of farmers is an obstacle for maintaining stable production levels of ..... (main crops in the region). This is mainly because of ..... (name effects of low knowledge levels on stable production) It is harder for farmers to access funding resources such as ..... (describe examples of funding types), because ..... (describe why it is harder). There is a risk of land overuse like .... (what does land overuse look like in this case) and departments may be making different plans for the same area. Prices and import and export volumes are inconsistent between sectors due to uncoordinated data collection. Nevertheless, the land zoning plans of the government are very clear, through ..... (describe the reasons why). Natural areas and sustainable use of natural resources can be maintained effectively, resulting in ..... (describe the visible results of successful conservation and natural resources management).

- **What are the end products:** The two scenarios narratives detailed and reformulated.

STEP 2
NAMING THE SCENARIOS

- **Summary:** this exercise aims at ensuring that the participants truly understand the scenarios used stimulate their thinking of multiple futures in a time horizon of 2030

- **Purpose:** ensure participants engagement to futures and scenarios ownership. This thought-exercise will provide ownership over the scenario narratives that have been reshaped and contextualised to the village

- **Time:** 15 min

- **Difficulty:** Moderate

- **How it works?** A way to stimulate participants to envision multiple possible futures is for them to read the scenario narratives newly contextualised and to discuss **What the differences are in development directions of main drivers between the two scenarios:** use the following examples of main drivers as input for the group discussion:

- Land ownership
- Use of chemical inputs
- Land use planning by the government
- Economic development

Discuss within the group how the drivers could be influenced in the two scenarios and what are the main differences are between these developments.

At the end the participants picture themselves as being a journalist in 2030, what will be the name of the article the journalist will used to describe the state of their villages in the given scenarios. Food security

- **What are the end products:** (1) name for each scenario

STEP 3
VILLAGE GOAL TESTING | VISION 2030

- **Summary:** The aim of the exercise is to build from the village goal as captured by the pFALUPAM report of the given village and discuss their desired future
- **Purpose:** To elaborate a desired future at village level
- **Time:** 30 min
- **Difficulty:** Moderate to Hard
- **How it works?** : Please carefully and loudly read the village goal. It is advised that the main village goals, as written in the pFALUPAM, is printed and read aloud to the participants. In our case, we are using the one of the Keosaenkham villages as an example:

To stabilised agricultural production, to issue communal land title deeds; to create conditions that facilitate rural development; to encourage and promote agro-ecosystem production while preserving soils, natural resources and biodiversity, to reduce poverty of people from ethnic minority groups.

Then look at the LU maps (Please see Annex) and data provided in the report of Keosaenkham village. Discuss within your group how the developments in scenario 1d and then scenario 2a will affect the village goals by using the two guiding questions:
1. How do the developments in SCENARIO 1D facilitate or hamper the achievement of the village goals? For example, how do the developments in scenario 1d affect food demand and availability, production of cash crops for export, land zoning, conservation of biodiversity soil, and other natural resources, and dynamics between ethnic groups?

2. And how do the developments projected under SCENARIO 2A facilitate or hamper the achievement of the village goals?

- **What is/are the end products?** (Re)Formulation of a village goal 2030. Two to three sentences.

STEP 4
ROLE PLAY

- **Summary:** Another way to stimulate people's imagination is to provide an interactive experience that shows a glimpse of what the future could entail in each scenario. They will be asked to list activities that they will have to put in place to ensure that the desired future-village vision 2030 is achieved
- **Purpose:** Formulation of a multi-stakeholders list of interventions that could lead to development pathways.
- **Time:** 1h30
- **Difficulty:** Moderate
- **How it works?:** After reading each scenario narrative again, participants will be asked to think of the potential future in each scenario and what these developments will mean for them and for other stakeholders. They will have to look at the maps and identify areas of pressures. We focus on two crops relevant to the specific context of the village and the production chain of these crops from cultivation to trading. Three main stakeholders relevant to the local context of the village have been identified beforehand and will be introduced in the training. These are, for
  SCENARIO 1D: farmer, DALAM employee and commodity trader
  SCENARIO 2A: the main stakeholders are farmer, agricultural extension officer (MAF) and credit provider (bank or microcredit provider)

The group will be divided into smaller groups with a maximum of three persons. The participants will select one of the key stakeholders listed above as their character in the role play. The participants take five minutes to envision themselves as that character in the year 2030 and brainstorm the implications of the developments in scenario 1d on their character. They will engage in a discussion within the group, with each member representing one of the key stakeholders. The group will then go to the second scenario (2a) and again each participant selects a stakeholder character and thinks of how future developments in the scenario would affect this particular stakeholder. Participants will then discuss within their group, each member representing a different stakeholder.

The DALAM facilitator will then feed the discussion by asking questions related to the key crops and how future developments under the different scenarios will affect 1) the cropping systems and value chain of these crops, and 2) the key stakeholders. The effects of the future developments of the scenarios on the cropping systems and the stakeholders are written down in a list.

- **What is/are the end product?:** The possible effects of the scenarios on cropping systems and concerned stakeholders and proposed interventions to improve stakeholders situation

STEP 5
BACKCASTING AND FINAL RECOMMENDATIONS

- **Summary:** Building on the village vision 2030 and the list of interventions from the role play exercise the participants are requested to think back from the vision to today and add some missing interventions or reformulate some in a timeframe 2030-2021.
- **Purpose:** Backcasting is an exercise that encourages actionable and timely interventions
.
- **Time:** 45 min
- **Difficulty:** Moderate
- **How it works?:** The goals and activities are compiled and rephrased on post-its (for example, see figure 3 below) looking at 2030 in a backcasting approach. In this exercise, there are three time frames. Each activity is placed on a timeline in one of these time frames, starting by 2030, the year with the desired vision. What are the steps and interventions that need to happen per time frame between 2021 and 2030 in order to accomplish the village goal? The questions in the table below can be used in the group discussion and the activities are listed in the table to construct a list of activities divided per time period.

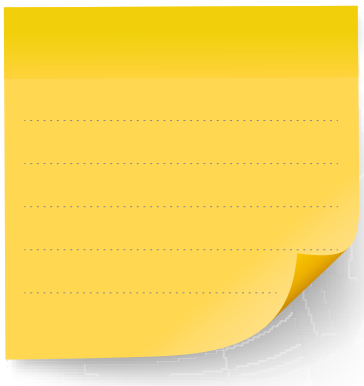
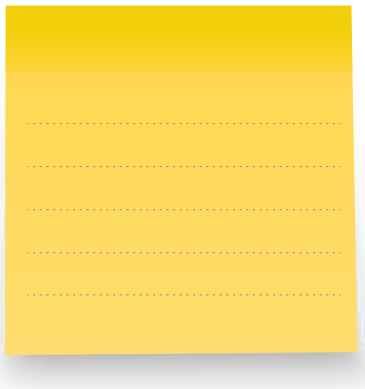
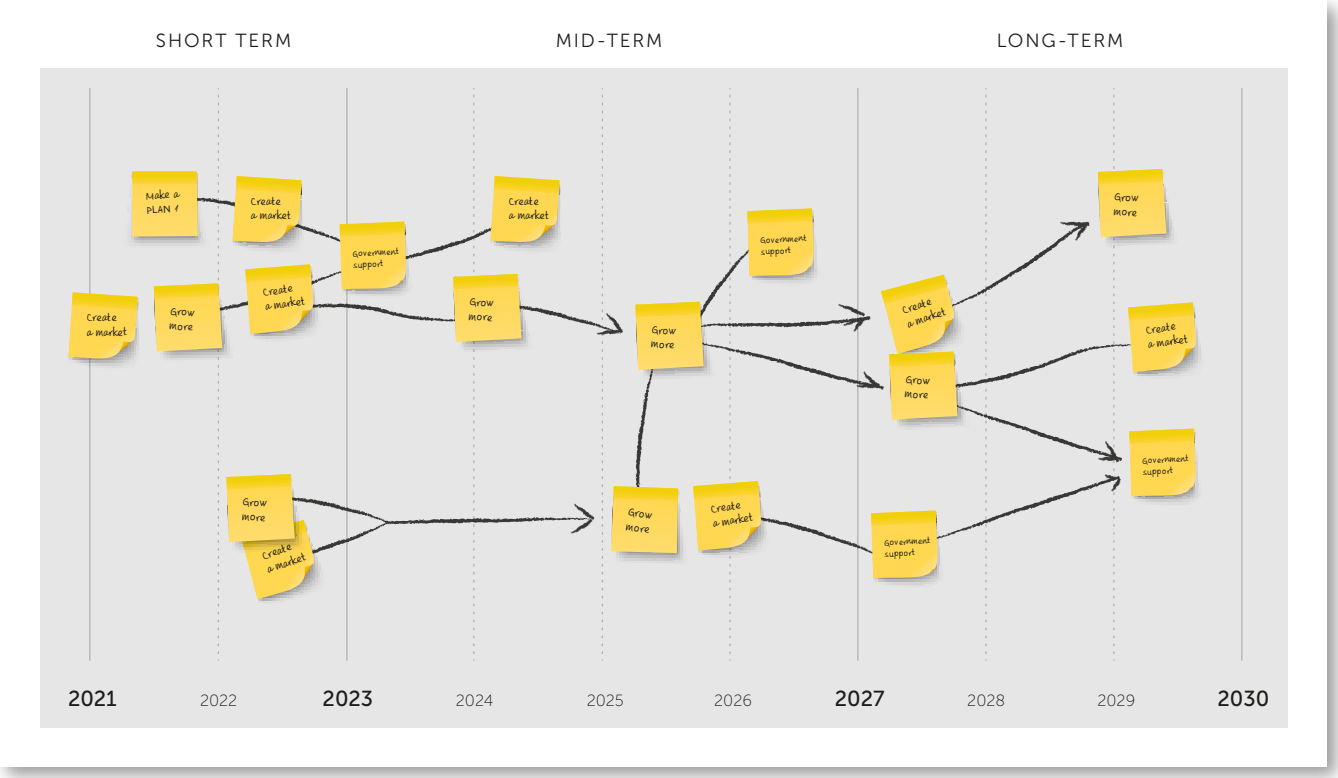
What steps and interventions need to happen last?	What steps and interventions need to happen in the intermediate future?	What steps and interventions need to happen in the next years?
2030 - 2027	**2027 - 2023**	**2023 - 2021**
		

Table 2 . Timeframe sequences

- **What is/are the end product(s)?:** Interventions placed in a timeframe (today to 2030)



Prepared by the authors

Figure 2 . Example of backcasting

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