

### Adding values to upland agriculture A vision and roadmap for sustainable agriculture in the Lao Uplands

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# Knowledge Capitalization Process:

#### **Objectives**

- ▶ Taking stock of knowledge about development in the Lao Uplands;
- Developing a common vision for the future to feed development policies;
- Provide guidance to strategic planning of the Ministry of Agriculture and Forestry and other relevant ministries.

#### Institutional set-up and process

- Initiative chaired by Minister of MAF;
- Hosted by the Sector Working Group of Agriculture and Rural Development - Communication platform between Govt agencies and Development Partners; Workshop series – multi-stakeholder platform.

Date	Workshop topic	Organizers
Nov 23, 2017	Soil carbon is what we need!	DALaM, CIRAD, EFICAS
Dec 9, 2017	We are what we eat	MAF, GRET, CIRAD, ACTAE
Feb 9, 2018	Bringing agroecology to market	ALISEA, NUoL, GRET, CIRAD
Feb 23, 2018	Vulnerabilities and adaptation to changes in the Lao Uplands	DALaM, NAFRI, CIRAD, CDE, CARE, CCL, SAEDA
Feb 27-Mar1, 2018	Green extension practitioner's workshop	DTEAP, LURAS, FAO
Mar 12-14, 2018	Lao Uplands Conference: landscape of opportunities	DALaM, NAFRI, CIRAD, CDE, TABI, LURAS
May 2, 2018	Alternative Futures in the Lao Uplands: a macro-level perspective	NAFRI, DALaM, CDE, TABI
June 18, 2018	Sector Working Group of Agriculture and Rural Development	Govt agencies and Development Partners



Alternative futures in the Lao uplands

- challenges & opportunities
- Vulnerabilities and adaptation to change



towards agroecology



- Landscape approaches: co-designing development pathway
- Green Extension: learning processes for sustainable agriculture



- ENABLING ENVIRONMENTS Youths in agriculture for uplands development
- of total area of the country is mountainous of total population lives
  - in uplands of upland population is bellow n

Lao DECIDE info

38%

# **Re-connecting Upland Areas to Economic Growth**

Competing visions remain for green growth in the uplands, with alternative development pathways, i.e. niche vs industrial agriculture, non-farm jobs in mountain areas and rural-urban migration.





### Main drivers of change in the uplands as envisioned by conference participants

Based on the presentations and panel, what do you think is the main driver of change in the uplands in the next 10 years? ອົງຕາມການນ່າສະເໜີ ແລະ ການ ສົນທະນາລັກສະນະການຖາມ-ຕອບບັນຫາ, ເຈົ້າຄຶດວ່າປັດໄຈຫຍັງທີ່ເປັນຕົວຂັບ ເຄື່ອນຂອງການປ່ຽນແປງຢູ່ເຂດເນີນສູງໃນ 10 ຕໍ່ໜ້າ?

Foreign Agriculture concessions/commercial agriculture ການສຳປະທານທີ່ດິນກະສິກຳຂອງ ນັກລົງທືນຕ່າງປະເທດ/ການຜະລິດກະສຶກຳເພື່ອເປັນສຶນຄຳ (ກະສຶກຳພານິດ) 52%

34%

Green Agriculture - ກະສິກຳສື່ຂຽວ

Highway - ເສັ້ນທາງລົດ

25% High-speed train - ລິດໄຟຄວາມໄວສາ

16%

Hydropower - ສ້າງເຂື່ອນໄຟພ້າ

15% Mining - ຂຸດຄົ້ນບໍ່ແຮ່

5%

Which agriculture option presented is most viable for the uplands ? 000 ເລືອກກ່ຽວກັບກະສິກຳແບບໃດທີ່ໄດ້ນຳສະເໜີແລ້ວ ສາມາດນຳໄປປະຕິບັດໄດ້ຫຼາຍ ທີ່ສຸດ ສໍາລັບເຂດ ເນັນສາ?

Agroforestry (stabilizing uplands shifting cultivation) ກະສຶກຳບ່າໄມ້ (ການເຮັດໄຮ່ໝຸນວຽນເຂດ ເນີນສູງ ແບບຄົງທີ່ຍືນຍົງ)

29%

Livestock ລ້ຽງສັດ

Green commodity ສິນຄຳສີຂຽວ

Youth in Agriculture ໄວໝຸ່ມກັບການເຮັດກະສິກາ 14%

# A Roadmap to Green Agriculture

### Adding values to upland agriculture

- ▶ Green agriculture is an essential component of green growth in the Lao Uplands. It should be supported by smallholder farmers engaged in agroecology practices.
- Indicators used to assess progresses; monetary, moral, meaning values

### Inside-out development process

- ▶ Co-designing intervention pathways driven from the inside and less influenced from the outside to preserve the values of the Lao society,
- ▶ Increasing competitiveness could be associated with increasing quality and safety of agricultural products based on Lao standards.
- The envisioned transition towards agroecology requires massive investment into capacity development to empower the next generation of Lao upland farmers to seize emerging opportunities that are brought in by the next revolution in communication technologies.

### From projects to policies... with the private sector

- > The projects-based development model is reaching its limits and must be reformed -> revisiting program-based approaches?
- ▶ Innovative intervention mechanisms are required to create an enabling environment for agribusinesses and SMEs through partnering with the private sector.

Key Lessons from the Lao'Uplands Initiative

19%

### Changing uplands are

- > putting stress on the smallholder farmers who are the main labor force and actors of future green growth scenarios,
- external interventions should buffer negative impacts of on-going megatrends on the most vulnerable populations, and buffer risks for innovators and entrepreneurs.

### **Engineering transitions** requires

- ▶ innovative thinking, beyond current problem solving approaches, and
- ▶ local ownership and empowerment of people to take control of their own activities

### **Enabling environments** are essentials

- ▶ to put policies into action and avoid policy gaps
- ▶ requires a '3-I reform' of Institutions, Indicators and Incentives.



MINISTRY of AGRICULTURE MAND FORESTRY



laouplands.org

/laouplandsinitiative

Swiss Agency for Development



# **Alternative Futures: Multi-function or Mono-function?**

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The Uplands of Lao PDR is a diverse mosaic of ethnic groups, landscapes and biological diversity. Seeking a more sustainable future for the Uplands is clear and central to the Government of Lao PDR's national development priorities. However, the sustainable development of the uplands hangs in the balance, caught between two competing and often mutually exclusive vision. This poster summarizes findings of a process to develop scenarios which could help planners better address challenge facing the uplands.

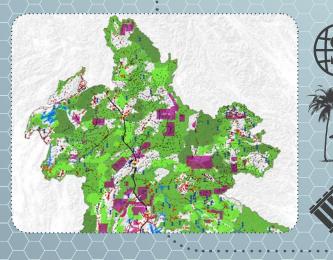
# Development Goals:

- 17 Turning Land Into Capital- FDI investment in land
- Agricultural intensification & commercialization 2/
- Poverty eradication
- 4/ Regional connectivity & integration
- The "Battery of Southeast Asia'

# **Conservation** Goals:

- Forest Strategy 2020: 70%
- SDG 15: Life on Land
- Stabilization of shifting cultivation 3/ 4/
- **Biodiversity & Protected Areas** Sustainable agriculture, niche markets

Complex overlay of foreign direct investments & policy constrain upland livelihoods



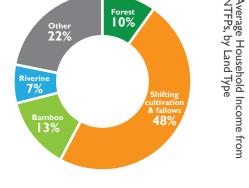


860 foreign direct investment projects mainly for mining hydropower & agriculture

**8% of all villages** in Lao PDR fall inside land considered Forest land - around 2,000 villages in area designated protection forest



Shifting cultivation landscapes create a multifunctional landscape and largest proportion of livelihood and income to upland farmers who are poorest and most vulnerable.

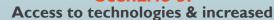


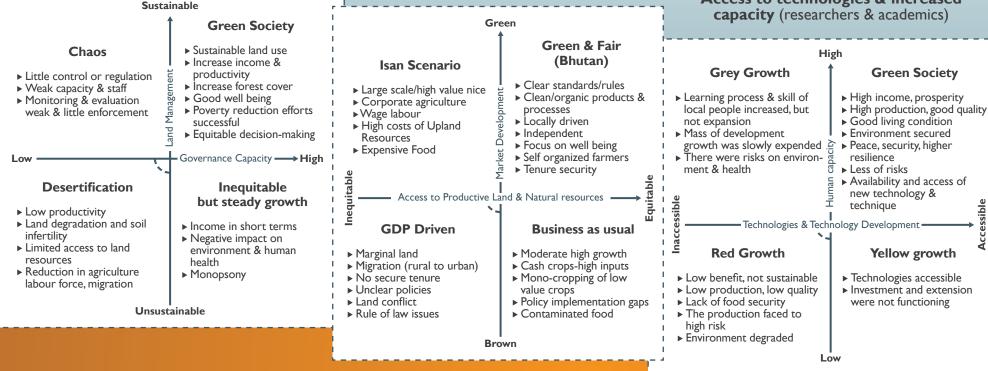
# Developing Scenarios Using Critical Uncertainties

Scenario I: Governance & land management (Policy planners)

Scenario 2: Access to markets & land (Foreign Advisers)

Scenario 3:





### **Successful Interventions** that Cut Across Scenarios

- Inclusion of youth: Greater investments in providing youth opportunity for new businesses is needed.
- Investments in locally established social enterprises and agrientrenpeurship. Continue promoting market access with a focus on niche markets. Large scale industrialization provided short-term profit but little long-term sustainability.
- Participatory land use planning approaches which secure land tenure arrangements of local people in relation to large-scale land investments.
- Improved result-based management systems which reward innovation and hard work rather than business as usual budgeting and projects.
- Institutional strategies are needed at all levels to improve Rule of Law.
- Farmer organizations with clear purpose, focusing on single activity.
- Support to bottom-up development processes, making sure that ideas and plans come from the local level.

### Lessons Learned

- Scenarios based on uncertainties are useful as they help uncover different world views, and help to look at multiple factors, opening up different possibilities.
- Alternative pathways entail gains and losses, we need to find ways to manage trade-offs and minimize impacts on most vulnerable.
- Institutional reforms should rely on individuals with high capacity who belong to these institutions. Transformations initiated and managed from within, not from outside.
- ▶ Need to take a systematic approach looking at larger issues of governance, marketing systems and natural resource management.
- ▶ Focus on incentives (markets, policies), indicators and results based systems in addition to technical capacity building as main features of projects.
- ▶ Results of engaging with private sector investment to improve agricultural output have been mixed and in many instances led to negative impacts on livelihoods, human health and the environment. Clear policy guidelines and standards need to be put into place and rigorously applied.

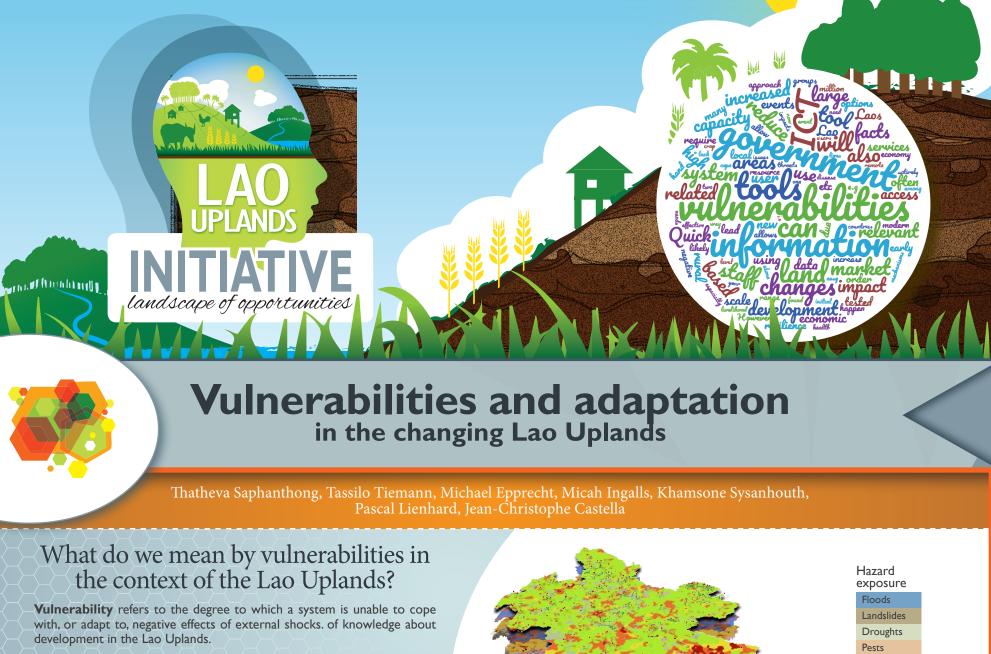




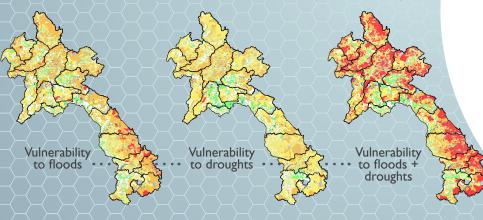


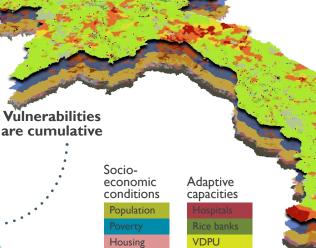


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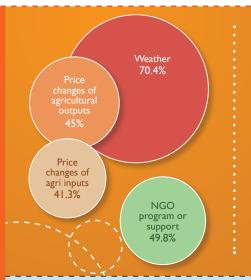


**Resilience** refers to the capacity to accommodate adverse effects, in order to maintain or improve basic structures and ways of functioning.





# Both Traditional & New Vulnerabilities Affect Upland People



### Weather and markets are main uncertainties

- Climate change exacerbates issues, market volatility adds risk Vulnerabilities are context and location speciic, relevant interventions require ample context analysis
- All change can bring vulnerabilities, also non-hazardous change (e.g. large projects, population displacement)

#### Large scale projects occupy vast land areas

- Two major threats: indebtedness in a context of economic competition; eviction due to large scale investments (e.g. dams, mines, concessions)
- Market economy fuels desires that require cash
- Can lead to unsustainable land management

role of develo pment partners is to buffer the risks for the most vulnerable.

240,00	upland families
6 mio h	<b>a</b> upland rice
l mio h	a of concession
0 mio h	a exploration concessions

UXO

# Buffering Negative Impacts of On-Going Changes

Beside traditional approaches to disaster risk reduction,

reducing exposure to risk and sensitivity to damages major efforts are required to increase adaptive response.

### Mobile 4D Disaster reporting tool, successfully tested in Laos

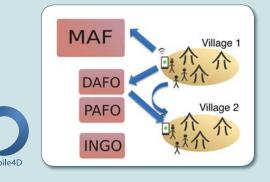


### **Pilot testing**

- 2014 Disaster Monitoring Vientiane Capital, Luangprabang
- 2015 MAF (CST, DoPC) Sekong, Saravan, Attapeu
- > 2016-2017 Monitoring locust outbreaks - Luangprabang, Huaphan

### **Early warning** systems

- For disaster risk reduction and adaptation to unpredictable events
- ► Accurate, locally relevant data, for timely intervention
- Modern ICT tools can provide early warnings on hazards
- Decentralized information structure using ICT tools and social media was found to be the most successful



### **Smartphone App**



- Send out warnings ▶ Receive warnings
- (location based)
- ▶ Contact other people

### Web-Administration

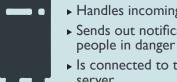


- Send out warnings
- Administration: combine, edit, close warnings

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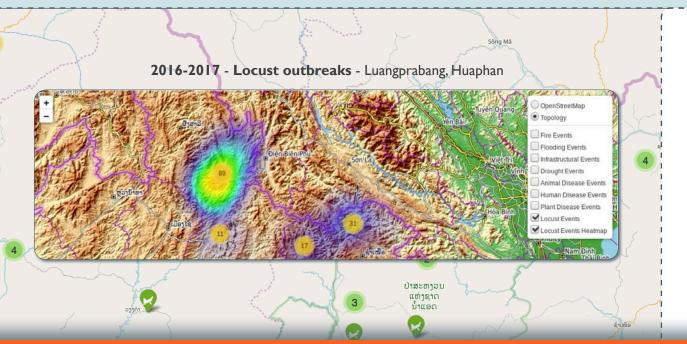
Provide further help

### **Cloud-Server**



 Handles incoming warnings Sends out notifications to

Is connected to the cloud server



### Lessons from ICT testing for early warning

- ▶ Information has to have 3 vital qualities: timely, relevant, easy to understand
- Extension into further service provision is easy once the tool is established

# Looking ahead...

- ▶ Relieve constraints: technical, financial, human capacity
- Expand collaborations: MLSW, MoNRE, MOPH, MPWT, MEM, DCCM and CSOs









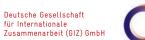
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# Why a Landscape Approach for the Uplands in Lao PDR?

**Tenure Insecurity** 

landscape of opportunities

The March March



**National Forest Targets** 



**Unclear Boundaries** 

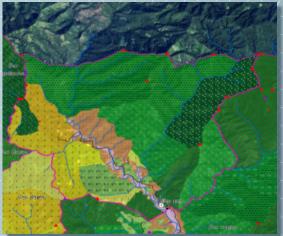


**Negotiating Trade-offs** 



**Transboundary Resources** 

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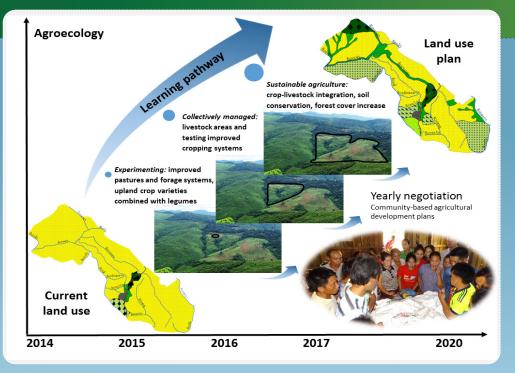


Sustainable Development

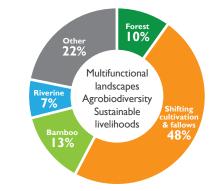


Multifunctional landscapes support food security and promote the resilience of upland livelihoods

- changes means that innovative solutions are needed to enable smallholder farming systems that leverage natural capital and enhance multifunctional landscape values.
- ▶ Diversified landscapes enhance farming systems' capacity to resist or recover from economic or environmental shocks through multiple income generating activities
- > Addressing stabilization of shifting cultivation in a realistic and practical manner requires clear policy guidelines about the legal status of complex landscape mosaics in the uplands.
- The transition from traditional shifting cultivation systems to modern agroforestry systems requires to provide a legal status to the complex landscape mosaics that are the basis of uplands livelihoods.



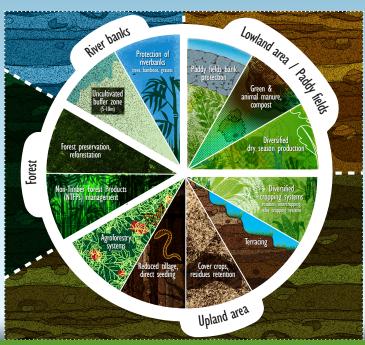
#### income of upland households (five times that of forests), TABI-CDE



### How to Maintain Multifunctional Landscapes?

- ▶ Participatory Land Use Planning is used to strike a balance between productivity increase and forest conservation goals at the local level; PLUP translates green growth policy into multifunctional landscapes;
- Integrated landscape approaches engage local communities in codesigning their own development pathway towards ecological intensification of agriculture as negotiated during the PLUP;
- ▶ In the transition from traditional shifting cultivation systems to modern agroforestry systems the scenarios initially revolve around the transformation of crop-livestock-forest interactions;
- Issues related to local land use rights (both individual and communal) and forest land allocation within three forest categories need to be addressed in the land law to preserve the complex landscape mosaics that ensure the resilience of upland communities and ecosystems.































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