



**Ministry of Agriculture and Forestry (MAF)  
National Agricultural and Forestry Research Institute (NAFRI)  
Agricultural Research Centre for Climate Resilience (ACCR)**

**ກອງປະຊຸມປຶກສາຫາລືລະດັບຊາດເພື່ອຮັບຮອງເອົາໂຄງການປັບປຸງການຜະລິດແບບປະສົມປະສານເພື່ອປັບຕົວເຂົ້າ  
ກັບການປ່ຽນແປງດິນສະພາບດິນຟາອາກາດໃນຊຸມນະບົດ ຂອງສປປ ລາວ**

**National Consultation and Validation Workshop of the Resilient Integrated Food Systems (RIFS) in Rural Lao PDR**

**Project for submission to Green Climate Fund (GCF).**

**ໂຄງການປັບປຸງລະບົບຜະລິດແບບປະສົມປະສານ  
ເພື່ອປັບຕົວເຂົ້າກັບການປ່ຽນແປງດິນສະພາບດິນຟາ  
ອາກາດ ໃນຊຸມນະບົດ ຂອງ ສປປ ລາວ  
Resilient Integrated Food Systems (RIFS) in rural  
Lao PDR**

**At the MAF Hall Meeting Room**

**ສະໜັບສະໜູນໂດຍ: UNDP**

By: Chanseng Phongpachith

**29September2016**

# **Overview of the Presentation**

- **Project organization structure**
- **Coordination of the stakeholders involved**
- **Project site (targeted provinces)**
- **Objectives /activities of the project**
- **Three main activities**
- **The challenges to be addressed by the project**
- **Main activities/sub-activities**
- **Roles and responsibility of stakeholders**
- **Timeframe for each activities**
- **Expected outcome and outputs**

# Project Organization Structure

## Project Steering Committee

### Senior Beneficiaries

DIC, MAF, NAFRI, MONRE,  
Local government authorities

### Executive

MAF

### Senior Supplier

UNDP

### Project Assurance

UNDP

### Project Implementation Unit (PIU)

### National Project Director MAF

### Responsible Party

M&E Officer

### Responsible Party

Project Manager

### Responsible Party

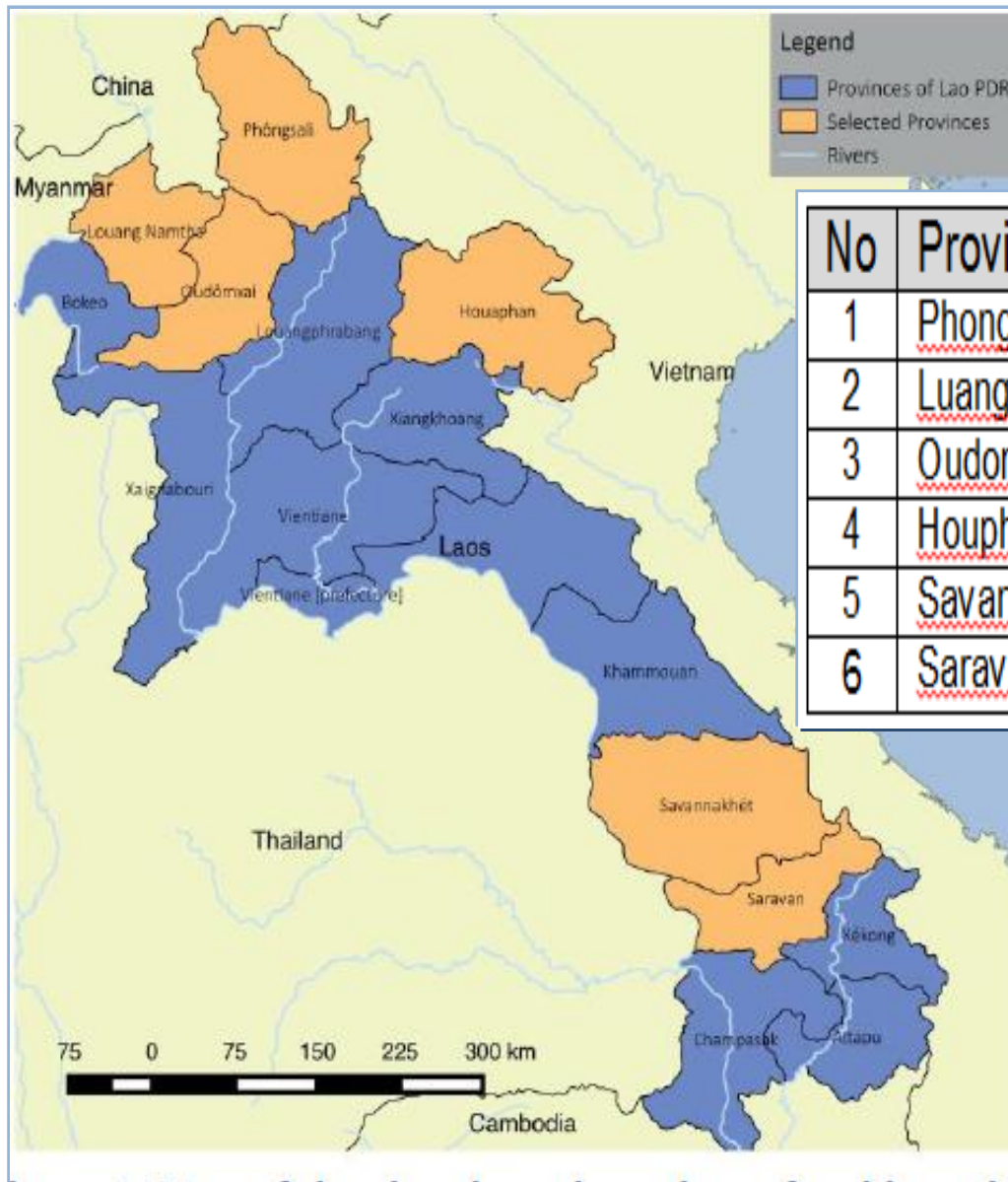
Finance and  
Administrative Officer

# Project Coordinations

**NAFRI (MAF) ⇔ DIC\DOPC ⇔ DDMCC (MONRE)**

- **Ministry of Agriculture and Forestry (MAF)**
- **National Agricultural and Forestry Research Institute (NAFRI) 11Centers\2Divisions and Project Existing at the Agricultural Research Centre for Climate Resilience(ACCR).**
- **Department of Agriculture (DOA)**
- **Department of Forestry (DOF)**
- **Department of Planning and Cooperation (DOPC)**
- **Department of Agricultural Extension and Cooperatives (DAEC)**
- **Department of Agricultural Land Management (DALaM) and others.....**
- **6 PAFOs and 12DAFOs and Target Villages**
  
- **Other Liministries\Departments of MONRE.**
- **International Organizations,NGOs,Agric. Trade and Promotion Company Ltd.**
- **Other Development Partners ....etc.**

# Target Provinces and District



No	Provinces	Districts	Locations
1	<u>Phongsaly</u>	<u>Yot ou and Phongsaly</u>	North
2	<u>Luangnamtha</u>	<u>Luangnamtha and Viengphoukha</u>	North
3	<u>Oudomxay</u>	<u>Xay and Beng</u>	North
4	<u>Houphan</u>	<u>Xam Tai and Hiam</u>	North
5	<u>Savannakhet</u>	<u>Champhone and Outhouphone</u>	Middle
6	<u>Saravan</u>	<u>Toulam and Ta Oi</u>	South

# ຈຸດປະສົງ&ກິດຈະກຳ ຫຍໍ້ ຂອງໂຄງການ ( RIFS's Project's Objective)

- To increase food security and promote commercialized agricultural production in project area.
  - To improve the production techniques and system in the project area.
  - To share lessons learned with other development actors (ADB, WB, UNDP Development Partners, Civil Society, NGOs, Agri-Business Ltd. ...etc)
- 
- ❑ **Activity 1:** to strengthen institutional capacity to deliver gender-responsive climate services to village communities to improve their risk preparedness and adaptive capacity.
  - ❑ **Activity 2:** to develop and deploy a climate resilient value chain strategy and make investment in climate-resilient and sustainable agriculture value chains delivered to support food and nutrition security
  - ❑ **Activity 3:** to develop supportive ecosystem services, improve/introduce watershed management practices to sustain land productivity in the face of climate change

# Objective 1: enabling food system support services

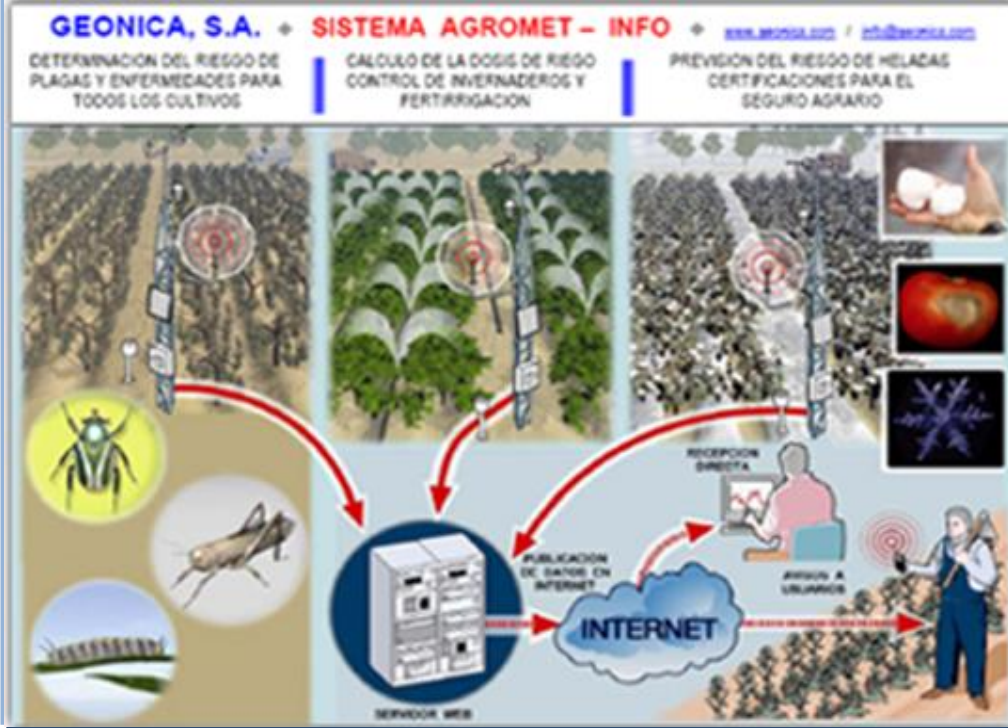
- Focused on national-level enabling climate services, this activity will focus on the dissemination of relevant and accessible information to local level producers and key stakeholders (eg. PAFO, DAFO and extension services). Dissemination of climate services also Training of trainers .
- Access to climate information services. in order for climate information services to reach the highest number of beneficiaries, through the Climate Change Research Centre within NAFRI, a network of research farms as a method to test, scale-up and transfer adaptive technologies
- To strengthen viability of agriculture livelihoods, this training will be supported by the preparation and dissemination of guidance for local producers on the climate-smart management of selected value chains, as well as on improved seasonal and production-relevant forecasts to farmers, including through the dissemination of dynamic crop calendars (DCC).
- To strengthen NAFRI research capacity will enable a science-based solutions to adaptive farming and food production practices in the local level



# Objective 1 Continuous

- **Activity 1.1. Production and dissemination of climate information services and advisories on cost-effective adaptation solutions for food and nutrition security at national and provincial levels**
  - Under this activity, the project will introduce tested methods for gender-disaggregated household surveys and participatory vulnerability assessments (such as, HHBAT/SHARP tool, Pro-VIA, or MPAT)
  - The project will also support the government through training and technical capacity building such as: climate risk profiling for key agri-food value chains, economic valuation methodologies
- **Activity 1.2 Strengthened gender-responsive community services to enable climate-smart livelihood development.**
  - This activity will focus on the dissemination of relevant and accessible information to local level producers and key stakeholders (eg. PAFO, DAFO and extension services) through the training of trainers (ToT) on climate-smart practices through the Farmer Field School approach (FFS) or Climate Farmer Field School (CFS), with the aim of deploying a farmer-to-farmer extension, also called farmer-based extension





# ມີຫລາຍທີມງານTeams

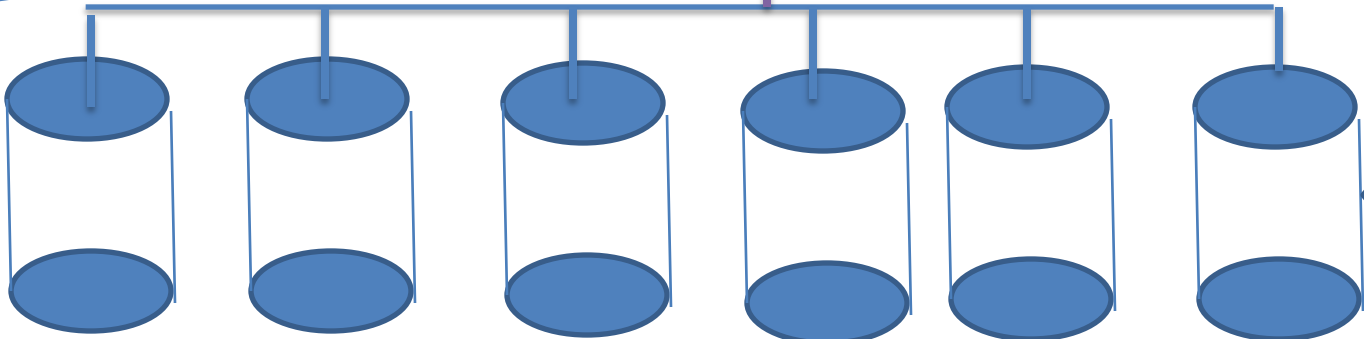
- ພະຍາກອນອາກາດດ້ານກະສິກໍາ Climate Service
- ແບບຈໍາລອງModelling
- ອຸຕຸກະເສດAgro-Met
- Mapping\_GIS-RS
- Adaptation Technique
- Database System
- ICT for Agriculture Practic
- HRD\Capacity Building
- ....others as ACCR mandate & Job option.

# ກິດຈະກຳທີ 1

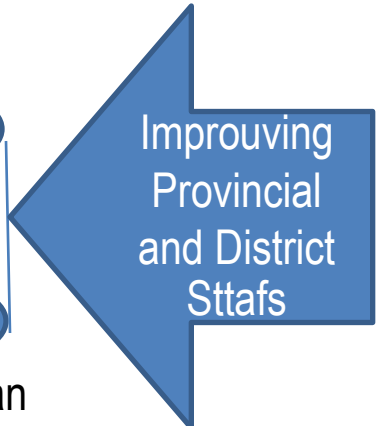


# Informations

# Internet



Phongsaly –Luangnamtha – Oudomxay – Houphan – Savannakhet - Saravan



NAFRI ICT staffs and IT companies to be a sett up training & Practic&Lesson Learn

**ອຸຕຸ-ກະສິກຳ :** ອາກາດ, ດິນ, ພືດ ແລະ ຜົນສະທິດ

ກະຊວງກະສິກຳ ແລະ ປ່າໄມ້  
ສະຖາບັນຄົ້ນຄວ້າກະສິກຳ ແລະ ປ່າໄມ້ແຫ່ງຊາດ  
ສູນຄົ້ນຄວ້າກະສິກຳດ້ານການປ່ຽນແປງຂອງສະພາບດິນຟ້າອາກາດ



# **ລາຍງານສະພາບດິນຟ້າອາກາດ (Draft)**

ມີຜົນຕໍ່ລະດູການບະລິດກະສິກຳປີ 2016

ສະບັບທີ 1, ເດືອນພຶດສະພາ (5) 2016

ປະຈຳລາຍີດທີ 20: ລະຫວ່າງວັນທີ 22-27 ມິຖຸນາ 2016

ສະພາບນ້ຳຝົນໃນອາທິດປະຈຸບັນ: ລະຫວ່າງວັນທີ 22-27 ມິຖຸນາ 2016

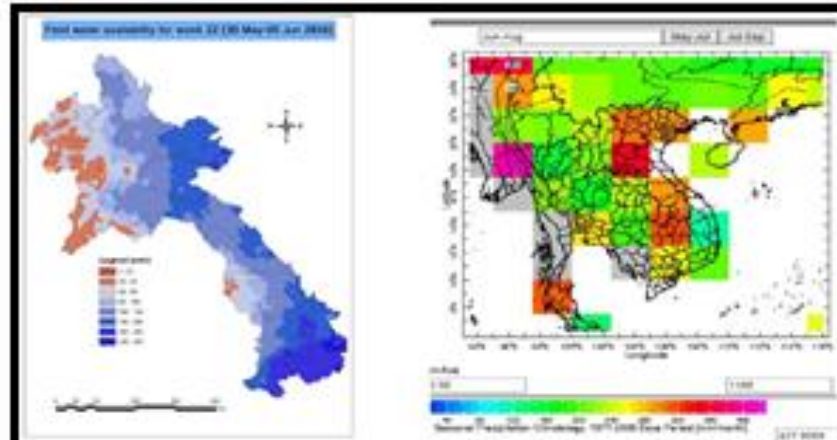
**ອາດສ້າງສະຖານີ ສຳລັບ  
ກະສິກຳເພື່ອ ຄວາມ  
ແມ່ນຍຳດ້ານແບບຈຳລອງ  
ຄຸນນະພາບຂໍ້ມູນ**



**Agrometeorology**  
... for the protection of the environmental  
resources and farming optimisation

ຮູບ 4: ສູນສະແດງການຄາດຄະເນນ້ຳຝົນໃນເດືອນທີ 10-20

**ການໃຫ້ຄຳແນະນຳດ້ານສະພາບດິນຟ້າອາກາດ  
ຈະເສີມຂະຫຍາຍ ສິ່ງມີຢູ່ ໃຫ້ ຊາວກະສິກອນ  
ໃຫ້ມີປະສິດທິຜົນ ໃນລະດັບຊາດ**



ຮູບ 2: ແຜນທີ່ສະແດງການຄາດຄະເນນ້ຳຝົນໃນເດືອນທີ 10-20

ຮູບ 3: ສູນສະແດງການຄາດຄະເນນ້ຳຝົນໃນເດືອນທີ 10-20

ແຜນທີ່ການຄາດຄະເນນ້ຳຝົນໃນເດືອນທີ 10-20 ສະຖານີ ຊາດ ພາກໃຕ້

**ຂ່າວສານ, ສະພາບດິນຟ້າ  
ອາກາດ ຕໍ່ຂະແໜງກະສິກຳ**

**Climate Advisory,  
Agro-Meteorology, Modelling &  
GIS-Remote Sensing Teams**



# ຄູມີການສ້າງອາຊີບ ດ້ານການປັບຕົວຂະແໜງກະສິກໍາ ຕໍ່ການປ່ຽນແປງດິນຟ້າອາກາດ

## Climate Change Training and Adaptation Modules (CCTAMs)

–Improving Resilience in Agricultural Sector-IRAS(2012-2015)

Supported by UNDP-GEF



ຄວາມສາມາດເຮັດໃຫ້ເກີດຜົນຜະລິດກະສິກໍາ ແບ້ນວັດຖຸດິນພຽງພໍເພື່ອໃຫ້ຜູ້ປະກອບ  
ການ  
ຜ່ານຂະບວນການແບຮູບ ຫລາກຫລາຍຊະນິດ ໂດຍໃຊ້ ຜູ້ຊ່ຽວຊານສະເພາະດ້ານ

# Objective 2: Development of climate resilient value chain strategy

- **Activity 2.1: Introduction of climate-smart agricultural input management practices into food production systems.**
  - Support all agricultural inputs, including land, water, seeds, and relevant agro-chemicals. For example, the project will support the organization of seed multiplication systems using local farmers in order to improve the supply chain for a diversity of climate resistant crops as well as increase agro-biodiversity.
- **Activity 2.2: Diversification and integration of farming systems in order to increase productivity and incomes in the vulnerable provinces.**
  - A farmer-based extension strategy, using for example FAO's FFS methodology to increase the dissemination and adoption of resilient and sustainable agricultural practices
  - Using a crop-livestock integrated system aimed at reducing erosion, increasing crop yields, nutrient cycling and intensifying land use to improve profits while preserving the environment
  - Work within existing food value chains and introduce new ones for diversification of income and nutrition sources.
- **Activity 2.3 Strengthened mechanisms to enable local finance for multiplication of integrated farming practices.**
  - establishing the conditions for the long-term viability and sustainability of resilient food systems by supporting access to rural finance further up-scaling integrated farming practices.

# PRINCIPLE of AGRICULTURAL VALUE CHAINS

- Value chains are a key framework for understanding how inputs and services are brought together and then used to grow, transform, or manufacture a product; how the product then moves physically from the producer to the customer; and how value increases along the way.
- The value chain perspective provides an important means to understand business-to-business relationships that connect the chain, mechanisms for increasing efficiency, and ways to enable businesses to increase productivity and add value. It also provides a reference point for improvements in supporting services and the business environment. It can contribute to pro-poor initiatives and better linking of small businesses with the market. Increasingly, the value chain approach is being used to guide and drive high-impact and sustainable initiatives focused on improving productivity, competitiveness, entrepreneurship, and the growth of small and medium enterprises (SMEs).
- Despite the successes of many District Agri-Product exporters in selling to new markets, without further improvements to their business environments and to the competitiveness of their export commodities, ....Quality of products \Skill level, low-value products and services, struggling to obtain a significant value-added share in Mekong regional trade.
- Target District Agric-productivity need increasing the efficiency of agricultural value chains are basic to the success of rural economies and to the growth of incomes of their rural populations.



# Agricultural Value Chains



Farmers/Producers



Agricultural Service Providers



Aggregators/  
Middlemen



Financial Services



Risk Management



Agro-Processors



Retailers



Consumers

ອາຫານຖືກຕ້ອງຕາມໄພສະນາກາ

ອາຫານຖືກແປຮູບ

# ຕ້ອງໄ້ການຜົນຜະລິດຕະພັນກະສິກໍາ

## PRIMARY INPUTS



## PRODUCTION & PROCESSING



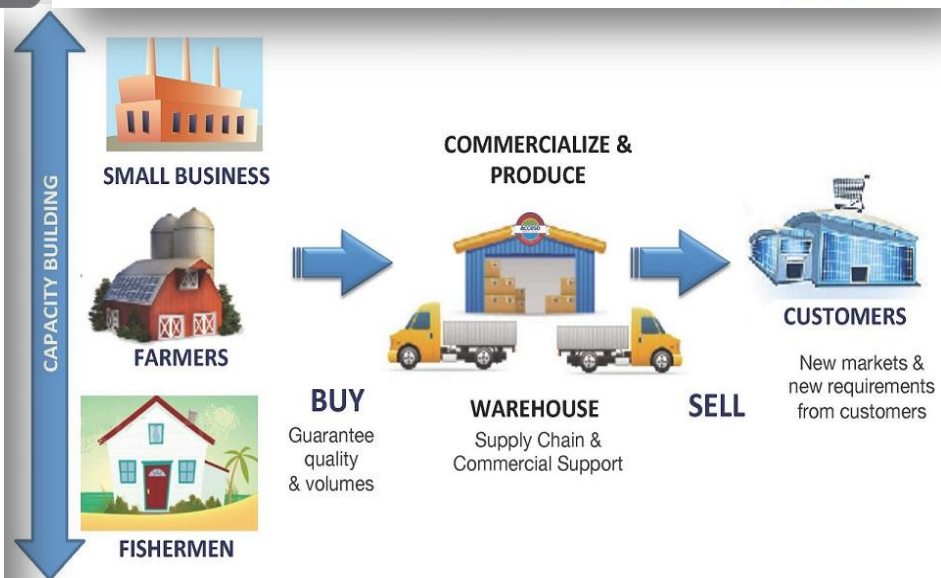
## TRANSPORTATION & INFRASTRUCTURE



## Agriculture Supply Chain



## The research focus will span the entire value chain:



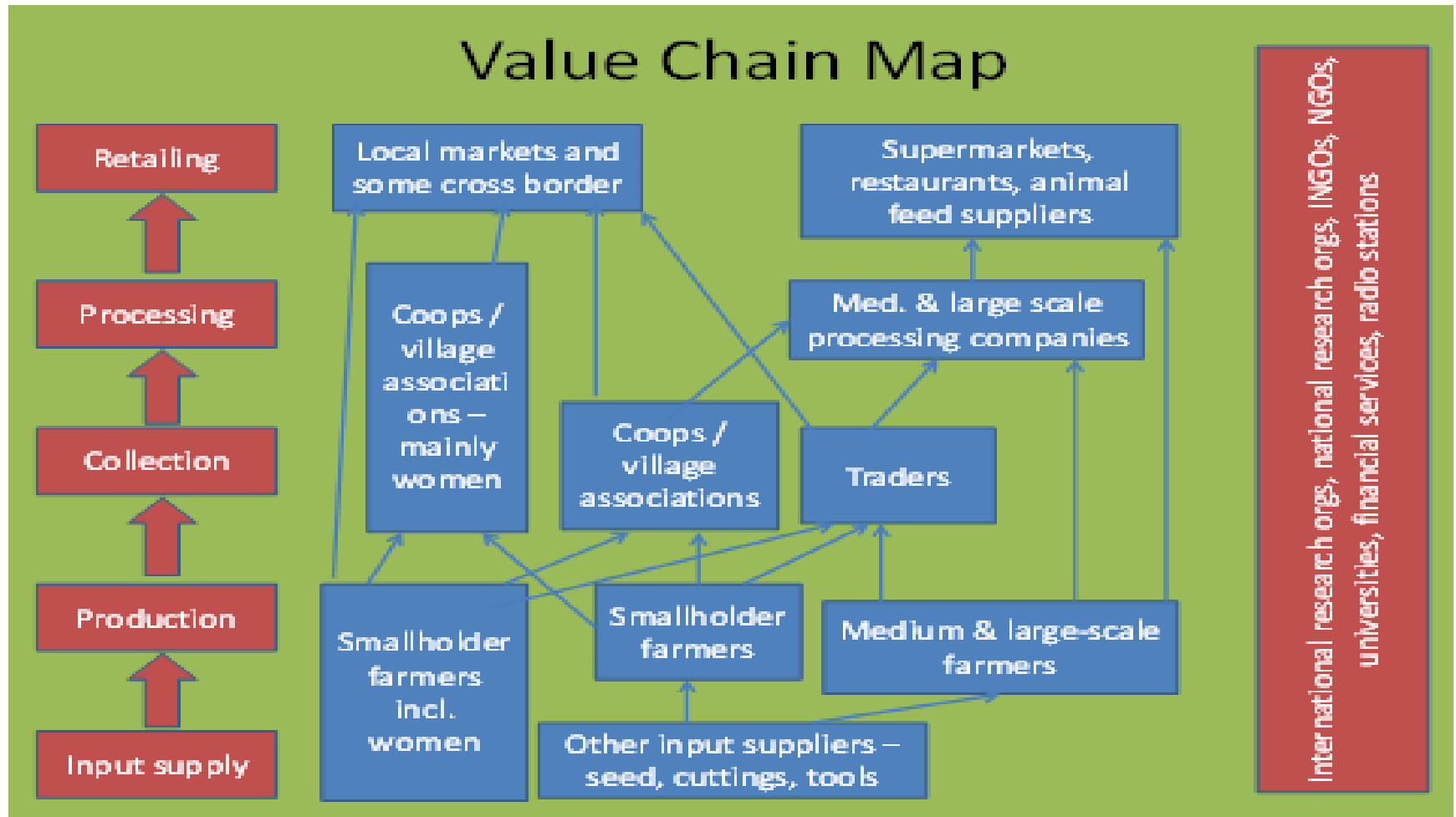


## ສ້າງທີມງານວາງແຜນ ແຕ່ລະບັນດາກິດຈະກຳ

NAFRIພະແນກແຜນການແລະການຮ່ວມມື

↔ Fກົມແຜນການແລະການຮ່ວມມື

- ອີງຕາມຄວາມເປັນຕົວຈິງຂອງບ້ານເປົ້າໝາຍ ທີ່ສະເໜີ ໃຫ້ໂຄງການ.
- ສ້າງແຜນວຽກກັບ ພະແນກກະສິກຳ ກັບ ເຂດເປົ້າໝາຍ ຂຶ້ນບ້ານ, 12 ເມືອງ ແລະ 6 ແຂວງ.

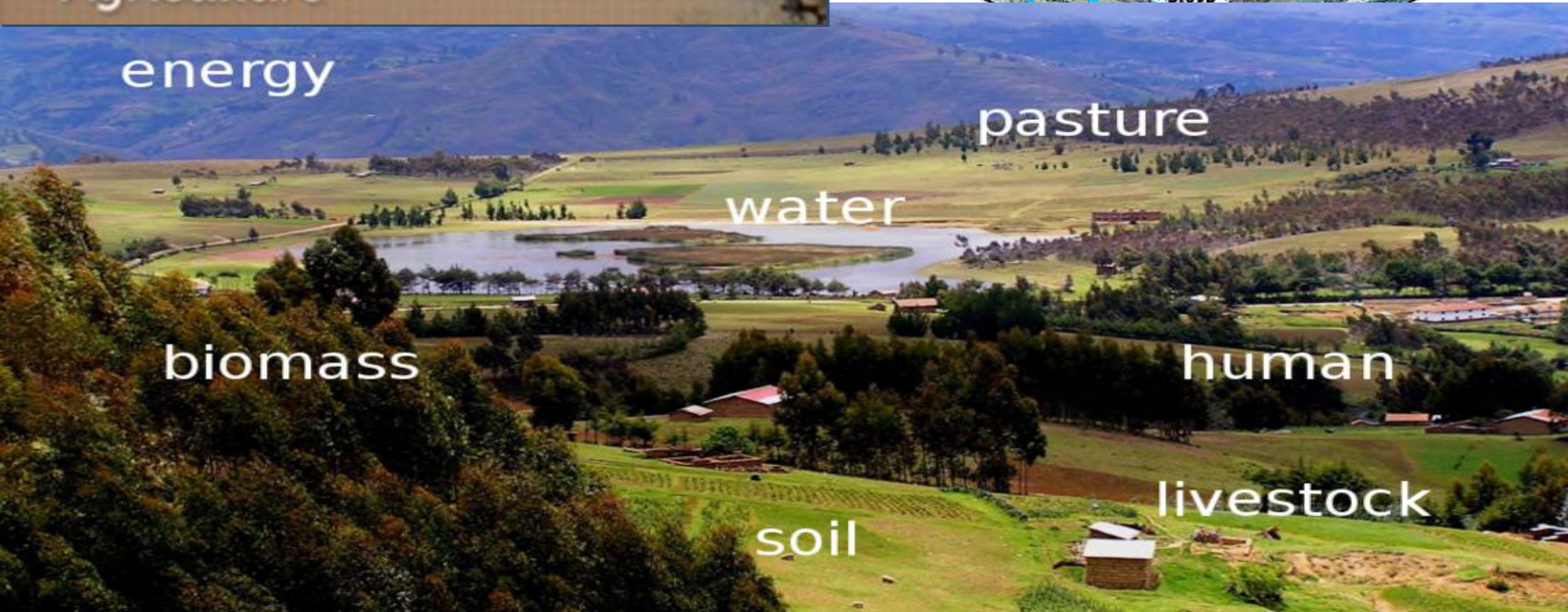
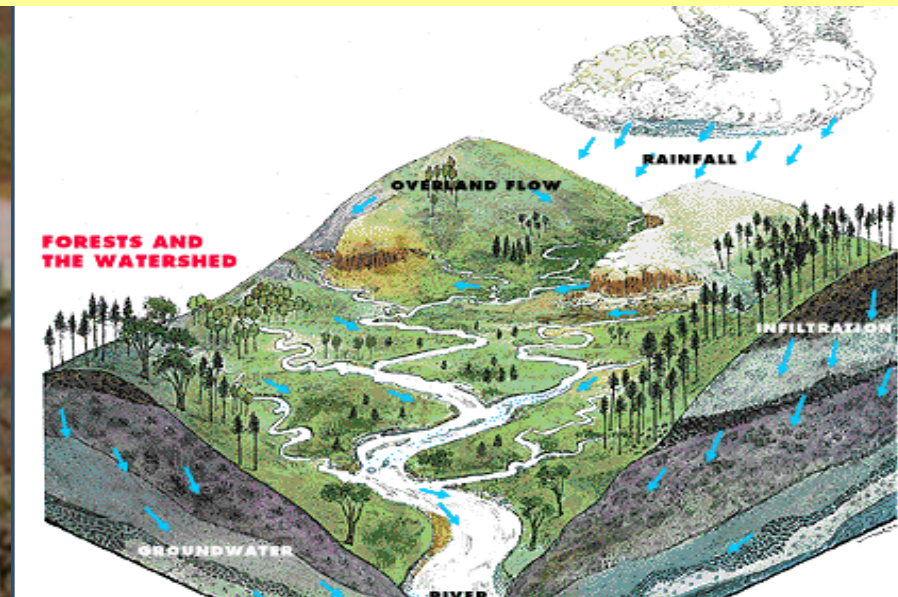


# Objective 3

## Development of supportive ecosystem services

- **Activity 3.1** *Participatory and climate resilient land use planning at the watershed / micro-catchment level, introduced as part of the decentralized adaptive land use decisions.*
  - work with communities and relevant stakeholders to identify previous impacts from climate variability and current vulnerabilities.
- **Activity 3.2.** *Drainage and water supply mechanisms in the areas of high rainfall variability established at a micro-watershed level.*
  - increase in agricultural water availability in the dry season, both as a means to control flooding and to increase production
  - setting up and / or rehabilitating water retention earth ponds through landscaping methods.
  - Fish culture from the water retention ponds to provide local livelihood benefits.
- **Activity 3.3.** *Address forest cover fragmentation in the vulnerable watersheds through village forestry and agroforestry solutions.*
  - Complement other activities mentioned above by efforts targeted at the broader landscape (i.e. around agricultural lands) to restore soil cover in the most productive, resilient and sustainable manner.
  - This will include mobilizing communities to implement terracing, where relevant, using crops and fruit trees, to reduce erosion, sediment runoff and siltation of water bodies and irrigation canals as well as to create sustainable carbon stocks.

# ອ່າງໂຕ່ງໃນເຂດເປົ້າໝາຍ/ສິ່ງແວດລ້ອມ/ຊີຫວະນາງຸພັນ





# Challenge

- **Limited resources for effective extension**

One of the main constraints is the limited resource available for effective extension services to the farmers, which relates to a lack of financial and human resources.

- ***Land tenure insecurity***

While individual, household-based land titling has been initiated throughout the country, it is mostly limited to urban and peri-urban areas, and agricultural areas on the perimeters of the country's main cities and towns.

- ***Lack of capital and local finance for production investment***

The lack of capital for local investment at the government level, but also at the local level to invest in production and processing.

- ***Over-reliance on low productivity monoculture and seasonal production***

the Lao agricultural sector is still over-dominated by rice cultivation. High demand from both internal and external markets, current production arrangement such as contract farming in many cases leads to farmers being under-compensated for their crop.

- ***Lack of economic incentives for ecological stewardship***

It is a well-known fact that subsistence farming does not always allow farmers to implement sustainable natural resources management. The environment is not perceived as a contributor to productivity.

# ສິ່ງທ້າທາຍ ທີ່ສະທ້ອນໃນໂຄງການ (Challenge)

- ຂີດຄວາມສາມາດຊັບສົມບັດທີ່ມີເພື່ອ ປະສິດທິຜົນການຂະຫຍາຍໂຄງການ
  - ແຫລ່ງທຶນ ແລະ ຊັບພະຍາກອນມະນຸດໃນ ຊຸມນະບົດເຂດພື້ນທີ່ເປົ້າໝາຍເປັນບັນຫາສໍາຄັນ-ມີຄວາມຈໍາເປັນ\ຊັບສົມບັດທີ່ມີໃນເຂດເປົ້າໝາຍ ເພື່ອປະສິດທິຜົນການຂະຫຍາຍການບໍລິການ ໄປຍັງ ຊາວກະສິກອນ.
- ຄວາມບໍ່ແນ່ນອນການເຊົ່າທີ່ດິນກະສິກໍາ  
ຄະນະທີ່ສ່ວນບຸກຄົນ,ທີ່ດິນຂອງຄອບຄົວ ເນື້ອທີ່ດິນກະສິກໍາ ເລີ່ມມີການລົດນ້ອນລົງຍ້ອນເປັນຕົວເມືອງໃໝ່.
- ບໍ່ມີນັກລົງທຶນທ້ອງຖິ່ນພຽງພໍ ແລະ ກ້ອນທຶນໃຫຍ່ໃນການລົງທຶນໃສ່ການຜະລິດກະສິກໍາເປັນສິນຄ້າ ແປຮູບ.
- ຄວາມບໍ່ໝັ້ນໃຈ ດ້ານຄຸນນະພາບຜະລິດຕະພັນພືດຕາມລະດູການ
  - ຂະແໜງກະສິກໍາໃນພື້ນທີ່ເປົ້າໝາຍອາດຍັງຖືການປູກເຂົ້າເປັນສິນຄ້າຕົ້ນຕໍ ແລະ ມີຄວາມໝັ້ນໃຈມີຕະຫລາດທັງພາຍໃນແລະພາຍນອກ.
  - ປັດຈຸບັນຍັງເຫັນການເຮັດສັນຍາຜຸກພັນ ໃນຫລາຍກໍລະນີ ເຮັດໃຫ້ຊາວກະສິກອນມີທ່າເສັຍປຽບກັບພໍ່ຄ້າຄົນກາງ ທົດແທນດ້ວຍ ຜົນຜະລິດຈາກພືດ
- ຂາດການກະຕຸ້ນເສດຖະກິດ /ພິທັກນິເວດວິທະຍາ
  - ດັ່ງທີ່ພວກເຮົາຮູ້ນໍາກັນວ່າ ຕາມຄວາມເປັນຈິງວ່າ ຄວາມເປັນຢູ່ ຂອງຊາວກະສິກອນ ພົວພັນກັບ ການຄຸ້ມຄອງຊັບພະຍາກອນທໍາມະຊາດຢ່າງຍືນຍົງ ແລະ ໃຫ້ຄວາມສໍາຄັນກັບສິ່ງແວດລ້ອມ.

# ຄວາມຮັບຜິດຊອບ ຈາກພາກສ່ວນກ່ຽວຂ້ອງ - ໜ້າທີ24



GREEN  
CLIMATE  
FUND

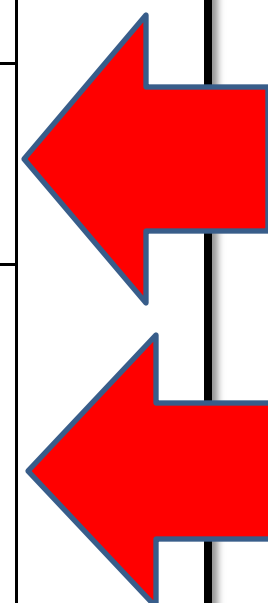
## PROJECT / PROGRAMME CONCEPT NOTE

GREEN CLIMATE FUND | PAGE 24 OF 5

basis.

Executing entities	Role in the project
Ministry of Agriculture and Forests (MAF) – Permanent Secretary Office	Lead executing entity, responsible for coordinating project activities and housing project management unit.
MAF – National Agriculture and Forest Research Institute (NAFRI)	Perform research oriented activities, including deployment of network of research farms and animation of Farmer Field Schools, delivery of training according to the CCTAMs
MAF – Department of Agriculture	Support land use planning, supervise deployment of training and information for extension officers, conduct crop monitoring
MAF – Department of Irrigation	Support and supervise the rehabilitation and construction of water retention ponds, irrigation canals and other water conservation activities
MAF – Department of Forestry	Support land use planning and watershed mapping, supervise reforestation and forest management systems
MAF – Department of Agricultural extension and cooperatives	Support the organization of farmer groups, producer groups and cooperatives, support the deployment of training and means for agricultural extension workers

Ministry of Natural Resources and Environment (MONRE)	National Designated Authority for the GCF, through the Climate Change Office. Overall supervision and coordination with MAF for the project. Co-chairing of project steering committee.
Farmer groups, water user groups, and cooperatives	Participate in trainings and research, through FFS and other farmer-based extension systems, participate in rehabilitation of natural resources and support collaborative management approaches. Ultimate beneficiaries of the project.
Private sector	Professional bulkers, collectors, millers, will be included in the project as key intermediaries between producers and markets. The project will also work with small rural enterprises to develop value addition, packaging and new value chains.  Private sector construction-oriented firms may be called upon to deliver aspects of the infrastructure work, using tendering processes administered by MAF in cooperation with UNDP.
Financial Sector	The project will engage with micro-finance institutions to develop suitable financial products for smallholders in project sites.
Regional institutions (e.g. Mekong River Commission)	Cooperation for modeling of vulnerability, climate impacts and scenarios, extraction of lessons learned for regional upscaling, data sharing.
Stakeholder engagement process and feedback received from civil society organizations	



Other Line Ministries.....etc.



### Timetable of scheduled achievements and completion

Key activity	Expected achievement
Activity 1.1: Production and dissemination of climate information services and advisories on cost-effective adaptation solutions for food and nutrition security at national and provincial levels.	Completed by Year 2
Activity 1.2: Strengthened gender-responsive extension services, to enable climate-smart livelihood development	Completed by Year 4
Activity 2.1: Introduction of climate-smart agricultural input management practices into food production systems (e.g. land, water, seeds, agro-chemicals)	Completed by Year 2
Activity 2.2: Diversification and integration of farming systems in order to increase productivity and incomes in the vulnerable provinces, benefitting 200,000 direct beneficiaries.	Completed by Year 5
Activity 2.3: Strengthened mechanisms to enable local finance for multiplication of integrated farming practices	Completed by Year 5
Activity 3.1: Participatory and climate resilient land use planning at the watershed/micro-catchment level, introduced as part of the decentralized adaptive land use decisions.	Completed by Year 1
Activity 3.2: Drainage and water supply mechanisms in the areas of high rainfall variability established at a micro-watershed level.	Completed by Year 4
Activity 3.3: Address the forest cover fragmentation in the vulnerable watersheds through village forestry and agroforestry solutions for increased resilience for soil enrichment and stability	Completed by Year 5

# Expected Outcome and Outputs

The achievement of the project within the timeframe would have to be built on the effective and efficient team work: Project prove that.....

**Activity 1:** agro-meteorological forecast; Climate Services to famers.

**Sub-Activity1:** Human resource development at ACCR centre, district and targeted provinces to be able to sustainably apply high technology and other related capacity development activities .

**Activity 2:** Agri-Bussiness to joint the project, Produce sufficient outputs leading to commercial activities linking farmers to markets.

**Sub-Activity 2:** To Develop planning process from central to local level including provincial, district and village levels. Build on locally available resources to produce agriculture products in a sustainable manner, improve the quality and value addition through processing, linking with the market, develop credit system at local level to increase farmers access to financial capital in the process strengthening gender quality and other cross-cutting issues .

**Activity 3:** Watershed, Environment , water use in dry season, soil nutrients.

**Sub-Activity3:** (cross-cutting) improve degraded environment, development of watershed and sub –watershed, bio-diversity, improve water supply for agriculture in the dry season

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ຄໍາຖາມ!





# Thank You For your kind attention !



NAFRI website: [www.nafri.org.la](http://www.nafri.org.la)