Agroecology and Safe Food System Transitions

ALiSEA

ALISEA NATIONAL GENERAL ASSEMBLY IN LAOS

ALiSEA Small Grant

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18th November 2025

A project funded by

In partnership with

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ALiSEA Small Grant : Overall Objective

Strengthen **ALiSEA members and partners** on three major topics in support to agroecology transition in the Sub-Mekong Region.

5 Grants rewarded in 2022-2023

Call 2022: 2 grants

Link and learn agro-ecology from the field

Promotion of renewable energy into agriculture post harvesting for smallholders

Call 2023:3 grants

Scale up Agroecological Products Access to Sustainable and Integration Markets Project

Re-enchanting Agriculture for Youths through an Organic Network

Youth and Women Empowerment for Agroecology

Small Grants: Key Figures in Laos

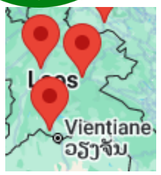
Diversity of selection committee members : DPA, UNI4COOP, Action Aid , CIRAD, GRET, CARES, CASRAD, SAEDA, CISDOMA, IRD, NOMAFSI and Scientific Secretariat of the Advisory Committee.

20 **Projects proposals** received in Laos

5 **Grants awarded** Team leaders of consortium: **3** national NGOs, **2** private sectors.

1 Small grant guidelines developed

33 **Knowledge products created**



73 ha

601 people

414 women

Budget: €15–20k per grant; €94k total in Laos

Sources of funding : ASSET project (AFD/EU)

Small Grant Sharing results: ADSA

Achievements and Results

• **Objectives:** Increase the capacity of young people particularly women on agricultural products through environmentally friendly and agroecology practices

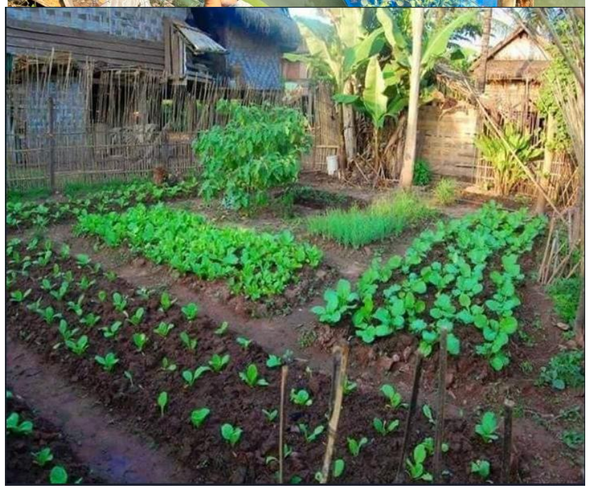
•**Farmers strengthened** their understanding of gender roles through GALS training, while young agroecology practitioners received comprehensive leadership, technical, and soft-skills training, enabling them to successfully implement agroecological practices.

•**Established** the "Agriculture Promotion Group for Nakha Cluster" officially endorsed by the District Agriculture and Forestry Office (DAFO)

• **Perspectives:** The formally recognized farmer group provides institutional foundation for continued activities and members demonstrated unity and commitment, with regular monitoring by group leadership

• **Total beneficiaries**: 220 farmers included young farmers (166 women)

Training technical skills (technical skills (organic farming; group formative and entrepreneur and marketing).



Small Grant Sharing results: BanSuaneAiOun

Achievements and Results

• **Objectives:** Build a sustainable network of organic farms in Luang Prabang that includes young farmers, and create effective hands-on training based on farmers know-how and experiences.

Results:

•**Develop** training curriculum in Power point format with embedded videos and technical leaflets

•**Provide** an organic farming curriculum on chicken rearing, black soldier fly, small piglet production, some garden vegetable cultivation, frog rearing, catfish rearing, beekeeping and business plan

• **Linkages** with local organic network, which markets network, Hotel, Restaurants and producers

•**Perspectives:** Building on the foundation of the organic model farm network, maintaining connections with agricultural value chains

• **Tolal Beneficiaries:** 40 people (students, farmers) included 15 women

Small Grant Sharing results: PDDA

Achievements and Results

- **Objectives:** Overcome key challenges face by Xiengkhouang's organic farmers, including weak market access, low production capacity, consumer doubts, price volatility, and lack of formal producer & buyer linkages.

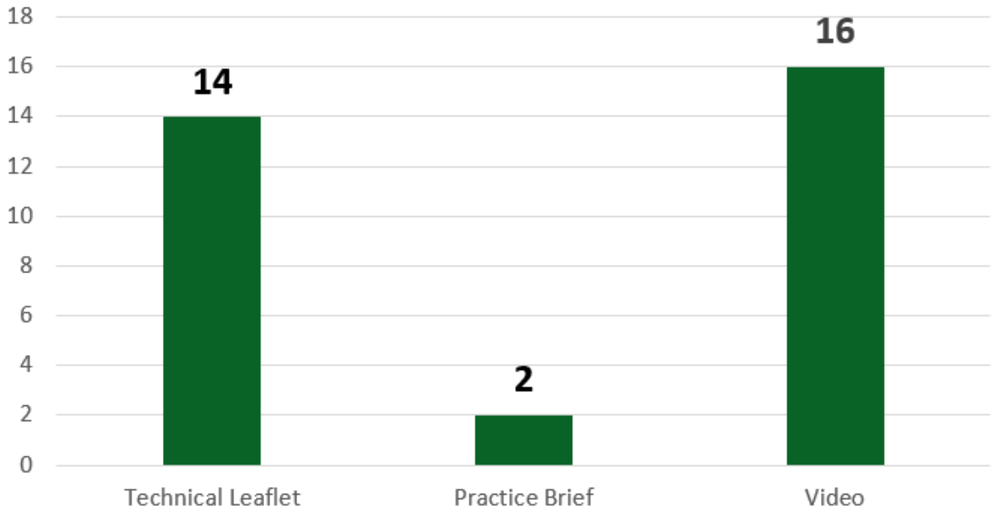
- **Results: Strengthened organic vegetables value chains** by improved production (increase quantity), agroecological practices , market access, and increased farmer incomes.

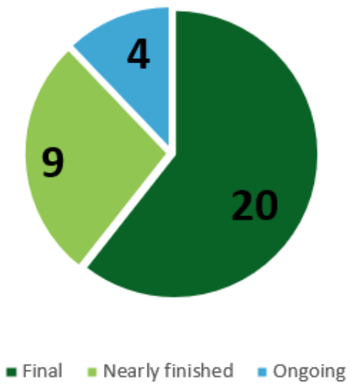
- **Perspectives**: Strengthen contract formalization, expand production and market reach to both new and existing target groups through continuous follow-up by DAFO and PDDA, and promote knowledge sharing via social media and the ALiSEA regional network.

- **Tolal Beneficiaries:** 40 farmers included 39 women
- **5.2 ha improved land management**.
- **17 greenhouses built for year-round production**

Overview of all Knowledge Products per format

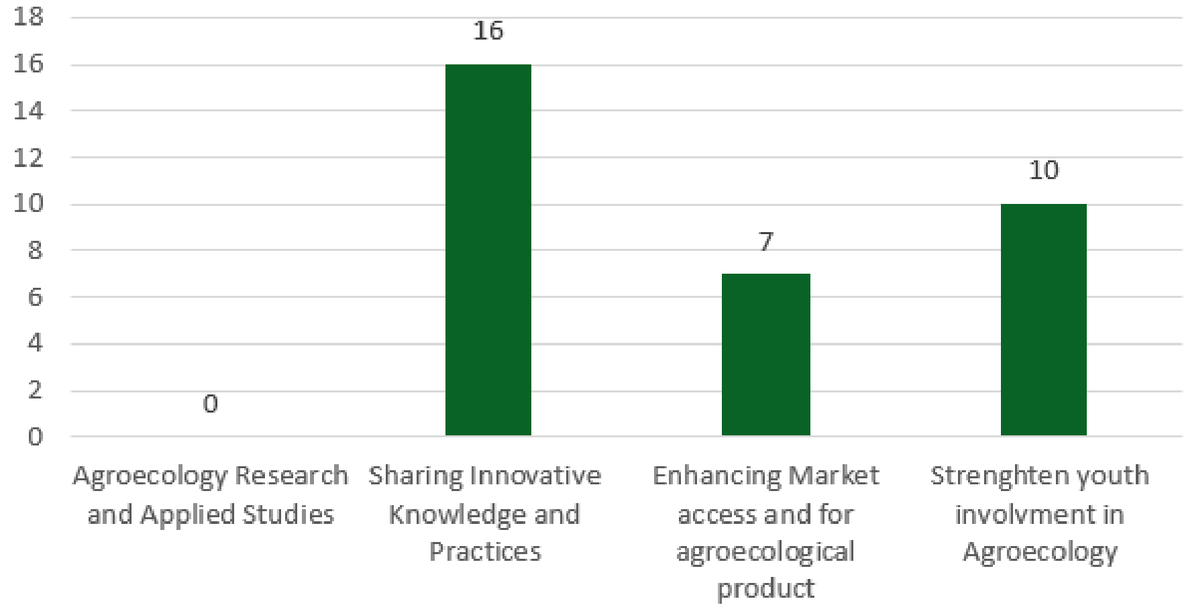
Total : 33





KP In progress

Overview of Knowledge Products per topic



Small Grant Sharing results: ADSA

Compost Fertilizer Recipe

Benefits of Compost

This compost acts as a superfood for your garden, building rich, living soil that supports healthy plant growth. It gradually releases essential nutrients, improves soil structure for easier root development, and retains moisture—reducing the need for frequent watering. Compost also introduces beneficial microbes that can help protect plants from disease and enhance nutrient uptake, resulting in stronger and more resilient plants.

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- Mr. Kolaka BOUANEDAOHEUANG, Director of Phan-Thin Social Enterprise, <kolaka.kb@gmail.com>

Date of publication: June 2025

Tips and Advice

-Store compost in a shaded area and cover it with a plastic sheet or store it in container to protect it from rain and sun.

-When kept in a dry, well-ventilated place, compost can be stored for up to 1 year without losing its quality.

-Finished compost should appear dark or grey, have a crumbly texture, and smell earthy, like a forest floor.

-Ensure the composting process is fully complete before using — it should no longer generate heat.

ALISEA Team
- Regional Coordinator: Lucie Reynaud <reynaud@gret.org>
- Laos National Secretary: Soutima Boudvised <soutima2506@gmail.com>

Technical Leaflet
COMPOST FERTILIZER RECIPE

Agroecological system:

Make Compost Fertilizer

Composting can be done using locally available raw materials, making it an affordable and accessible alternative to chemical fertilizers. By reducing dependence on external inputs, compost production can significantly lower costs—farmers may save up to ten times the amount they would spend on chemical fertilizers.

Formula 1 and 2

Ingredients - Formula 1
- Regular soil: 1 kg
- Fresh rice husks: 1 kg
- Burnt rice husks: 1 kg
- Animal manure: 1 kg
- Leguminous plants: 1 kg
- Molasses: 2 tablespoons
- Water: 20 L
- Bio-Fermentation Liquid: 2 to 8 tablespoons
- Fine rice bran (optional): 1 kg

Ingredient - Formula 2
- Regular soil: 2 kg
- Fresh rice husks: 4 kg
- Burnt rice husks: 4 kg
- Leguminous plants: 4 kg
- Molasses: 2 tablespoons
- Water: 20 L
- Bio-Fermentation Liquid: 2 to 8 tablespoons
- Fine rice bran (optional): 1 kg

Preparation Steps - Formula 1 and 2

Mixing Ingredients
- Combine all ingredients thoroughly, except the fine rice bran, which can be added later if needed.

Forming the Compost Pile
- Shape the mixed materials into a circular pile to support proper aeration and moisture distribution.

Preparing the Bio-Fermentation Liquid
- Mix 2 tablespoons of molasses with 2 to 8 tablespoons of Bio-Fermentation Liquid in 20 liters of water.

Adding the Bio-Fermentation Liquid
- Evenly sprinkle the prepared liquid over the compost pile until it reaches about 60% moisture content (moist but not soggy).

Last steps
- During the first 7 days, the compost will generate high heat. Turn or flip the pile daily for 2-7 days to ensure even decomposition.
- Do not stack the compost more than 5 layers high.
- Once the compost has cooled, it is ready for use.

Key Notes
- The ideal moisture level is around 60%—the pile should feel moist when squeezed but not drip water.
- If the mixture becomes too wet, add fine rice bran to help absorb excess moisture.
- If it is too dry, use rice washing water instead of plain water (mixing the compost with molasses or bio-fermentation liquid can increase the compost's effectiveness).

Formula 3

Ingredients
- Fine rice bran: 1 basket/ 20 kg
- Fresh rice husks: 1 basket/ 20 kg
- Chicken manure: 1 basket/ 20 kg
- Ash: 6 kg
- Bio-Fermentation Liquid (optional) : from 1 to 5 tablespoons
- Effective Microorganisms (EM) (optional): 1 kg

Preparation Steps
- Mix all the ingredients thoroughly and pile them on a flat surface.
- Use bio-fermentation liquid or Effective Microorganisms (EM). If it is not available, mix molasses with water and sprinkle it over the pile until it reaches about 60% moisture—not too dry, not too wet.
- Compact the pile by hand; if the moisture level is correct, the compost should stick together without crumbling.

Usage - All Formulas
- Apply the compost on vegetable beds at the rate of 1 kg per square meter.

Natural pesticide recipes

Formula 4 : Tobacco Leaf Solution
Against soft-bodied pests like aphids and mealybugs

Ingredients
- Tobacco leaves: 20 g
- Clean water: 2 L
- Dishwashing liquid (optional) : 0.5 teaspoon

Preparation Steps
- Boil 20 g of tobacco leaves in 2 L of water until it reaches 100°C, then let it cool.
- Strain the liquid through a thin white cloth to remove the leaves.
- Mix 300 ml of the tobacco solution with 100 ml of water.
- Add 0.5 teaspoon of dishwashing liquid to help the solution adhere to plant leaves.
- Spray the mixture daily for 7 consecutive days to eliminate pests.
- For prevention, spray every 7-15 days.

Advantages
- Cost-effective and easy-to-make
- Biodegradable natural pesticides
- Combination of insecticides and repellents
- Having a broad range of affects (fungi, bacteria, viruses, insects,...)

Materials
- 20 L bucket
- 20 L container or bucket with a lid
- 1 metallic bassine
- Strainer (cloth...)
- Knives
- Sprayer
- Pair of gloves

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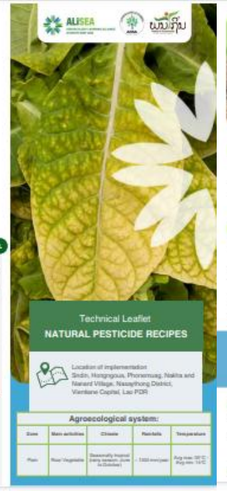


Technical Leaflet
NATURAL PESTICIDE RECIPES

Agroecological system:

Formula 1: Lemongrass, Galangal, Turmeric

Ingredients
- Galangal : 1 kg
- Turmeric : 1 kg
- Lemongrass : 1 kg

Preparation Steps
1. Finely chop or crush all the three ingredients
2. Mix 20L of clean water with the crushed mixture in a bucket or container. Stir well to ensure a proper mixture.
3. Let the mixture ferment overnight (12-24 hours).
4. Strain the liquid using a fine cloth or sieve to remove solid residues.
5. Dilute the concentrated solution with an equal amount of water (1:1 ratio).

Use
- Apply once every 7 days for prevention or more frequently for severe infestations.

Benefits
- Lemongrass contains citronella oil, which repels certain insects.
- Galangal has antibacterial properties and inhibits insect egg development.
- Repellent against pests, such as aphids, mealybugs, and thrips. Prevent from fungal diseases like powdery mildew and rust.

Formula 2 : Chili Mix

Ingredients
- Fresh red chili : 1 kg
- Fresh bird's eye chili : 1 kg
- Fresh green chili : 1 kg

Preparation Steps
1. Finely crush or blend fresh chili peppers. Wear gloves to avoid skin irritation from capsaicin.
2. Mix the crushed chilies with 20 L of clean water in a sealed container (e.g., bucket with lid).
3. Let it ferment for 3–5 days in a shaded, cool place
4. Stir daily and strain the liquid through a fine cloth or sieve to remove solid residues.
5. Dilute the concentrated solution with a concentration ratio between 0.2 L and 0.5 L of chili extract per 20 liters of water.

Adjustment: Use higher concentration (0.5 L) for severe infestations or lower (0.2 L) for mild prevention.
Frequency: Every 3–5 days for active infestations. Every 7–10 days for prevention.
Storage: Store unused extract in a cool, dark place for up to 1 month.

Benefits
- Chilies contain capsaicin, which kills insects and fungi.
- Local red chilies have pungent oils like piperine, which repel pests.
- Bird's eye chilies contain aromatic oils, which repel ants, aphids and whiteflies.
- This formula also helps to prevent viral diseases.
- Effectiveness: Works against aphids, whiteflies, and soft-bodied insects.

Formula 3 : Garlic and Water

Ingredients
- Garlic : 1.5 kg
- Water : 28 L

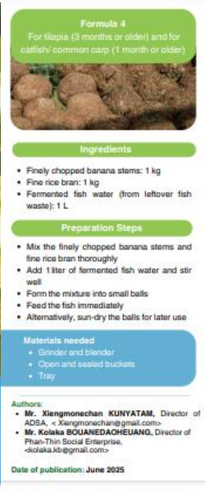
Preparation Steps
1. Finely crush or mince fresh garlic.
2. Mix the crushed garlic with 20 liters of water in a clean container.
3. Let it ferment for 1–2 days
4. After fermentation, filter the liquid through a fine cloth or sieve to remove solid particles.

Use
- Mix the concentrated solution with 8 liters of clean water.
- Reapply every 3–5 days or after rain for severe infestations.

Benefits
- Effective against fungal diseases and pests like aphids, whiteflies, thrips, and red spider mites.

Tips and advice
-Crushing materials into finer pieces may improve the extraction of active compounds.
-Fermentation helps break down plant materials, releasing natural pesticidal and fungicidal properties.
-Use formulas within a few days.
-The best time to spray is in the late afternoon to avoid sunburn on leaves and to allow overnight absorption.
-Spray evenly on pest-infested plants, covering both sides of the leaves and the stems.

Recipe for Carnivorous and Herbivorous fish 1-2



Formula 4
For tilapia (3 months or older) and for catfish/ common carp (1 month or older)

Ingredients
- Finely chopped banana stems: 1 kg
- Fine rice bran: 1 kg
- Fermented fish water (from leftover fish waste): 1 L

Preparation Steps
- Mix the finely chopped banana stems and fine rice bran thoroughly
- Add 1 liter of fermented fish water and stir well
- Form the mixture into small balls
- Feed the fish immediately
- Alternatively, sun-dry the balls for later use

Materials needed
- Grinder and blender
- Open and sealed buckets
- Tray

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Advantages
- Easy and inexpensive process
- Ensures high nutritional quality
- Promotes natural food production by boosting plankton and floating plants

Recommendations for Small Fishes

Use 1 kilogram of feed for every 4,000 fishes, feeding once daily in the morning or afternoon.

From the start of the farming process until fishes are one month old, it is recommended to use fresh feed.

Once the food mixture is prepared, shape it into small round pellets and place them in a feeding container submerged in the fish pond. When the fish reach one month of age, switch to dry food.

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Technical Leaflet
RECIPE FOR CARNIVOROUS AND HERBIVOROUS FISH FEED 1/2

Agroecological system:

Formula 1
For tilapia

Ingredients
- Compost: 100 kg
- Fine rice bran: 20 kg
- Hydrated lime mixed with water: 70 kg
- Water : 70 L
- Bio-fermentation liquid: 1 L

Preparation Steps
- Crush all the ingredient into a fine powder, place them in gauze, and tie the gauze tightly. Put the bundles in a container and pour water over them.
- Soak the ingredient and whisk it for 5–10 minutes twice a day for 15 days. The mixture can then be used and stored for up to six months.

Formula 2
For catfish and common carp

Ingredients
- Dried cow or buffalo dung: 10kg
- Coconut meal or soybean meal: 3kg
- Fine rice bran: 10kg
- Fresh fish, chicken intestines, or fish meal: 5 kg
- Chicken or duck eggs: 15kg
- Finely chopped water spinach, morning glory, or duckweed: 4kg
- Cooked sticky rice or regular rice: 2kg
- Yeast (from shops): start with 1-3 packets (20g/packet), to begin the process

Preparation Steps
1. Place all raw materials, except yeast, into a bucket and mix thoroughly.
2. Add the yeast (if making feed for catfish or frogs, use regular water).
3. Mix until the mixture reaches approximately 60% moisture; when forming pellets, no water should drip on your hands.
4. Feed the mixture into a grinder to form pellets, and then either dry the pellets on a tray or use them fresh.

Formula 3
For catfish and common carp

Ingredients
- Fresh snail bodies: 2kg
- Cassava: 1 kg
- Corn kernels: 1 kg
- Dried sticky rice: 1 kg
- Ripe bananas: 1 kg
- Fresh water spinach: 1kg
- Fine rice bran: 1 kg

Preparation Steps
1. Pound and finely grind the snails, then finely grind the cassava.
2. Mix the cassava, snails and corn thoroughly until well combined.
3. Add all the other ingredients, and form the mixture into small balls.
4. Finally, sun-dry the pellets on a tray.

Recommendations for Feeding Herbivorous Fishs

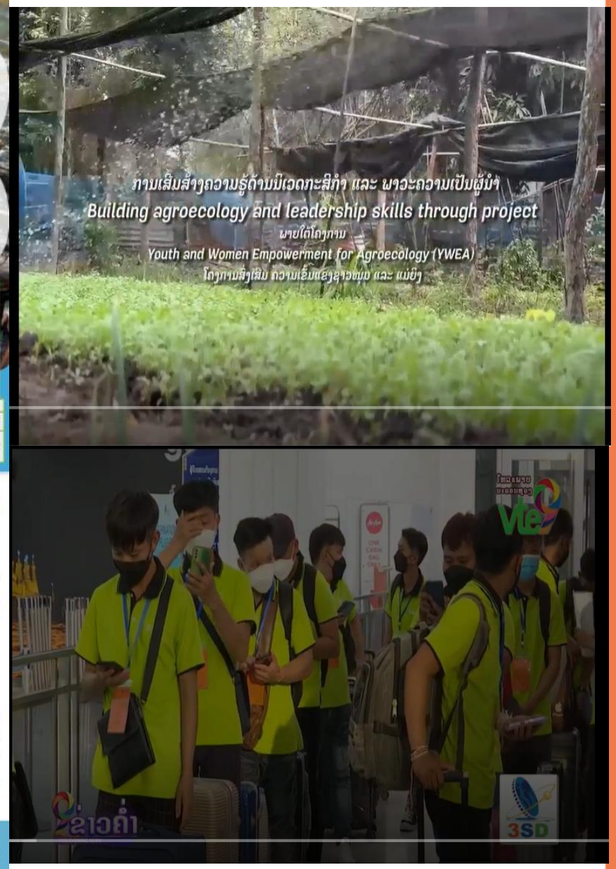
1 - Prioritize Plant-Based Feed
Catfish and common carp are naturally herbivorous or omnivorous, so their diet should mainly consist of vegetables, aquatic plants, and agricultural by-products. Avoid excessive protein-rich feeds, such as meat or fish meal.

2 - Avoid Overfeeding
Overfeeding causes decomposition, leading to water pollution with high levels of ammonia and nitrites, as well as oxygen depletion. Poor water quality weakens fish immunity and can result in disease. Feed small portions 2–3 times daily, and ensure the fish consume all feed within 10–15 minutes. Remove any uneaten feed promptly to prevent spoilage.

3 - Adjust Feeding Based on Season
Fish eat less in cold weather, so reduce the feed quantity in this case. During warm months, when their metabolism is higher, increase the feed slightly.

4 - Regularly Monitor Water Quality Using Rapid Test Kits
Check pH, ammonia, and dissolved oxygen levels frequently.

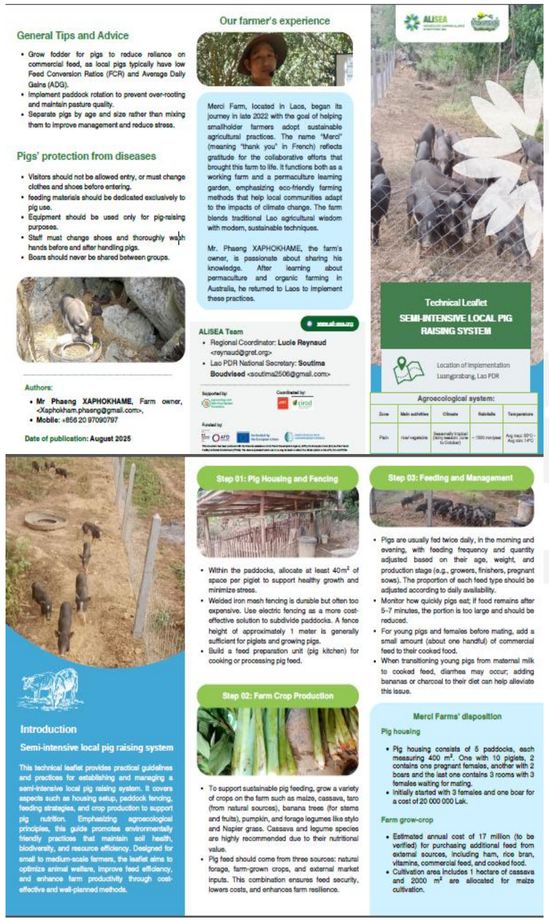
Video: Youth and women empowerment for AE



Small Grant Sharing results: BanSuaneAiOun

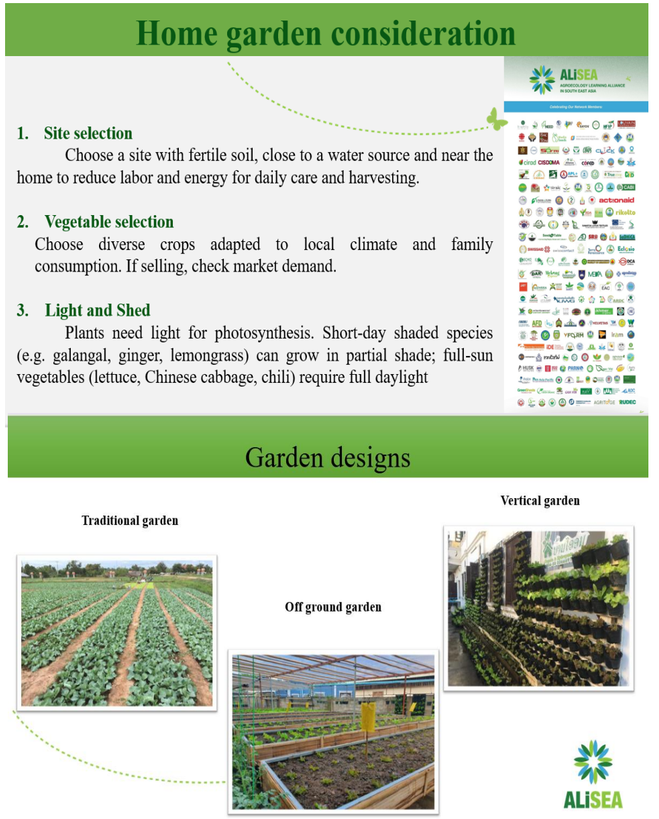
Frog Breeding and Rearing

Semi-intensive local pig raising system



Fruit trees cutting and nursing

Organic vegetable growing techniques is currently in progress



Small Grant Sharing results: PDDA

1 Practice brief & 1 Video are currently in progress

Organic vegetable growing techniques1/2

Organic vegetable growing techniques2/2

Organic vegetable growing techniques

Bio-extracted liquid fertilizer (BE)

Lesson learned

- **Small Grant Facility interesting tool to :**
  a) Engage members in partnership between ALiSEA members & non-members to strengthen skills and mutual learning
  b) Provide direct funding to local organizations to test innovations and implement AE programs,
  c) Engage members in generating knowledge to document their work & results

- **Recurrent question** : grant budget VS number of members benefiting

- **How to reduce gap competition between local organizations and INGOs in terms of proposal writing** ?
  - Potential alternatives : specific writing proposal training, support project implementation, translate guidelines and template in national languages

- **Discrepancy** between procedures requirements and grant size budget

PERSPECTIVES

- Seeking for funding to launch new calls in 2026 – 2027
- Collaboration with Agroecology Fund : Nomination Process for submitting a Small Grant Proposal to AE Fund

AGROECOLOGY FUND

- ALiSEA network is **eligible to nominate members organizations**
- **Members Organizations allowed to submit a full proposal directly to AEF**.
- **Final funding decisions are made solely by the AEF**, without any involvement from the ALiSEA team.

Agroecology and Safe Food System Transitions

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THANK YOU !

Agroecology and Safe Food System Transitions in Southeast Asia (ASSET)

វិវឌ្ឍនាការកសិអេកូឡូស៊ី និងប្រព័ន្ធស្បៀងអាហារសុវត្ថិភាព

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Chuyển đổi Nông nghiệp sinh thái và Hệ thống Thực phẩm An toàn

Funded by: AFD Agence Française de Développement | Co-funded by the European Union | Fonds Français pour l'Environnement Mondial

Main Challenges in Laos

Submission & Implementation

- Grantee faced gaps in project management and implementation, due to a disconnection between proposal writers and implementing teams.

Monitoring & Support

- Delayed feedback, and staff turnover affecting coordination

Finance & Admin Management

•Budget overspending, reporting and procedures manual confusion, incomplete documentation.

External factors

- Delays were mainly caused by seasonal disruptions, natural disasters, grantee illnesses, and simultaneous management of multiple grants.