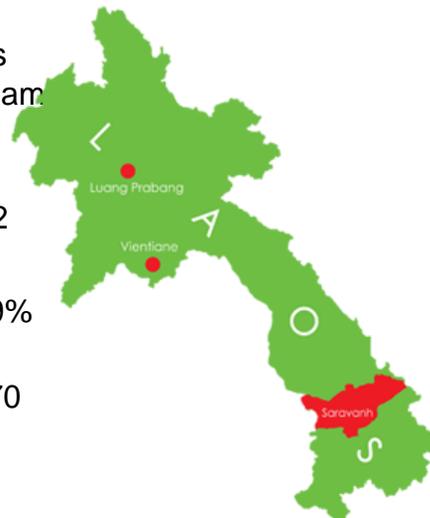


“Connecting Resilient and Sustainable Agricultural Practices in Laos”

Hongnapha PHOMMABOUTH
Green Community Development Association

Background

- Landlocked Laos shares border with China, Vietnam, Cambodia, Thailand & Myanmar
- Total area: 236,800 Km²
- Population: 6.5 million
- Annual GDP growth: 7.9% (2011-2015)
- Income per capita: \$1970 (2015)



Background (continued)

- Agriculture-based economy with more than 3 quarters of population (6.5 million) tied up to agriculture for which most part relies on rudimentary farming tools
- Food insecurity remains an issue, with over 30% of population experiencing seasonal shortfalls in rice.
 - One factor linked to food security is an increased incidence of flooding and drought



Relying on resources

- Population still rely on subsistence farming & natural resources for their livelihoods;
 - Esp., rural people make use of agro-biodiversity resources for food or NTFPs, medicine and income on a daily basis.



Challenges & Issues

- Climate change effects, such as unpredictable rains and extended dry seasons have a significant impact on people's livelihoods across the country.
- Laos is concerned about consequences of climate change to economic development, including human capacity, poverty reduction and environment sustainability

Soil erosion and Drought



Photos on the way to GCDA's target villages in Vaphy district, Savavan province (a southern province)

Green Community Development Association

- **Registered** officially in March 2012 as a national non-profit association (NPA)
- **Key focus:**
 - Developing local producer organizations through capacity building and setup of "profitable agriculture systems"
 - Promoting good agricultural practices and organic agriculture
 - Partnering with producers to learn from each other develop production capacity and link them to market
 - Considering a market driven approach, helping develop sustainable growth for farmers and therefore encourage them to further respect environment
 - Developing GCDA knowledge and skills through research and development activities

Vision

GCDA becomes a leading professional non-profit organization in the area of income generation for farmers through "profitable agriculture systems", with a strong research and development background for clean agriculture production and marketing.

Approach

GCDA's guiding approach relies on five core values (i) the concept of green development; (ii) community-driven development; (iii) innovation and creation of rural sustainable development models; (iv) market-based value chain development; and (v) GCDA as a learning organization.

Date - Lieu

Why promoting 'clean agriculture & forestry' t



Ecological crisis in agriculture

- Agriculture (especially **family farming**) undergoing **economic** and **social crisis** combined with an **ecological** dimension (crisis in ecosystem fertility)
 - Disappearance of former systems of fertility management (based on long fallow in slash & burn system)
 - New systems not able to sustainably improve per-hectare yields
 - Migrations of impoverished farming populations in fragile ecosystems (demographic pressure, government policies for conversion of temporary land use to permanent land use, land concentration...)

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The Green Revolution's limits and negative impacts

- **Yield and productivity gain** (controlled environment and good agro climatic conditions / soil fertility) → **reached its limits**
- Poor performance in fragile environments and where the climate is unstable
- Deterioration of soil fertility, loss of farmland, decrease in biodiversity, exhaustion of non-renewable resources, deterioration of landscapes, contribution to climate change
- Family farmer dependency on firms upstream and downstream, indebtedness, pressure from large-scale farms (land and resource grabbing)

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Impacts of climate change

- Increasing of intra and inter annual rainfalls variability, higher frequencies of extreme climatic hazard and pest and disease outbreaks
- Ecosystem in crisis is likely to be more sensitive to extreme climatic hazards (drought and flood)



Adaptation to Climate Change in Laos

**Bamboo Plantation's Development to Increase Food Security,
Income Generation and for Adaptation to Climate Change for
Rural Communities
Saravan Province, Laos**

Our project



- Improving soil fertility and soil management of both cash and subsistence systems such as improved erosion control techniques and intercropping
- Promoting agricultural diversification and mixed farming systems to mitigate current trends of reliance on monocultures.

Objectives

- Primarily increase community's food security
- Promote income generation activities e.g. bamboo
- Improve natural resource management



During constructing head work



Main activities

- Raise awareness of target communities in laws related to forest management
- Set up functional bamboo producers' groups
- Promote participation of all community members



Main activities (continued)

- Identify livelihood opportunities through better access to finance and to the use of water from built weirs or small scaled irrigation systems
- Set up an environmental conservation community model from bamboo plantation



Lessons learned

- Strong community leadership
- Good participation from community members – through consultation leading to effective cooperation & implementation and community's self initiative
- Cost effective (compared to govt estimate: \$12,000 vs \$100,000 required to develop a weir)
- Local government as effective facilitator
- Communities starting to do the planning to sustain activities introduced by GCDA to reforest and hopefully bring back wild crops & animals that were seen 10 years ago