

Fish Conservations Zones (FCZ) on rivers and streams in Luang Prabang Province have been a successful strategy employed by local communities to ensure abundant and diverse fish populations. FCZs lead to substantial increases in local fish consumption and income from fish sales. FCZs are often supported by riparian conservation efforts and tourism.

FISH CONSERVATION ZONE

Scale and Impact

- 43 FCZs established in 26 rivers and streams in 9 Districts and 121 villages.
- FCZ providing greater fisheries resources to more than 61,000 rural people from 13,000 households.
- Some FCZ communities are catching more than 10,000 kgs of a diversity of fish species per year.
- Families in some FCZ receive increased income from fish sales up to 900,000 Kip per year.

Opportunities

- Expand the number of FCZs in the provincial streams.
- Extend the FCZs into riparian ecosystems that are connected to FCZ streams.
- Development of tourist facilities at priority FCZs to increase revenue for communities linked to sales of food, locally grown fish feed, agricultural products and local handicrafts.
- Use the FCZ as a strong incentive for farmers to reduce the use of pesticides in upland agriculture.
- Increase the visibility and awareness of FCZs by means of distributing brochures, posters and placing of signs adjacent to FCZ areas.
- Incorporate FCZ activities into nutrition focused projects.



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In addition to the priority activities the province also support efforts to promote:

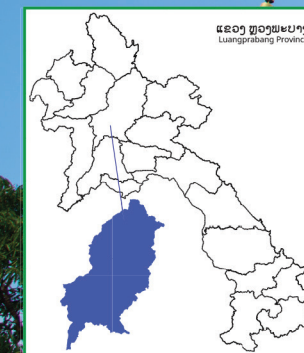
- **Village forestry:** Being connected to many NTFPs, village forestry needs support for conservation, management and marketing of products.
- **Mushrooms:** Wild mushrooms are lucrative but need support for habitat protection, farmer organization and marketing.
- **Crispy Riverweed:** Already a well known product, loss of habitat suggests efforts are needed on production in new areas or in different ways.
- **Seed storage and banks:** Community efforts to conserve and promote local cultivars of rice needs technical support.
- **Beekeeping:** The huge potential for Lao honey exists if marketing, quality control and expansion of beekeeping can be achieved.
- **Wild Tea:** The ancient tea trees are now source of tea expansion which need protection, farmer organization and equitable market support..

FOR MORE INFORMATION

- Department of Agriculture and Forestry
- Department of Education and Sport
- Department of Industries and Commerce

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ແຂວງຫຼວງພະບາງ Luangprabang Province



ສ້າງຄວາມເຂັ້ມແຂງດ້ານຊີວະນາໆພັນ Strengthening Agro-Biodiversity

454,862 population 49% female
81,190 household
13 ethnic groups
11 districts, 1 city
59% forest cover
2.1% cultivation land
33% of the population are farmers



ສະຖາບັນຄົ້ນຄວ້າກະສິກຳ, ປ່າໄມ້ ແລະ ພັດທະນາຊີວນະບົດ
National Agriculture and Forestry Research Institute



LOCAL ORANGE VARIETIES



The local Nambak orange varieties from Luang Prabang have a high demand due to their popularity with consumers based on their sweet and sour taste. There are opportunities to further exploit this demand by means of introducing high quality planting material, better management of orange trees, greater focus on marketing and strengthening farmer orange producer organizations.

Production

- 1288 households produce Nambak oranges in the province.
- Nambak oranges are produced in 26 villages in 7 out of 12 districts in Luang Prabang.
- Annual Nambak orange production is approximately 11,500 tons on 350 hectares.
- There are currently 30 private and 1 government nurseries producing improved orange seedlings.
- Production and quality of oranges continues to be constrained by disease, insects and poor management.

Marketing

- There are diverse marketing arrangements for Nambak oranges.
- Oranges are marketed by 35 provincial and 20 outside buyers.
- Farmer direct sales are important with three major roadside sales areas, direct orchard sales and local markets being the major sales strategies used by farmers.
- Marketing strategies increasingly focus on organic production, quality and improved packaging.
- Farmgate prices for Nambak oranges in the past 5 years have been 1500-2000 Kip per kilogram and retail prices of 3000-4000 Kip per kilogram.

Opportunities

- Improve quality and production of oranges by means of improving overall management especially annual pruning of trees.
- Increased use of irrigation and fertilization.
- Replacing old diseased orange trees with improved high-quality orange seedlings.
- Diversification into other citrus varieties.



Broomgrass is one of the most important NTFPs in Laos including Luang Prabang in terms of total annual sales. The major markets for Lao broomgrass are in Vietnam, Thailand and China although most of it is sold as raw broomgrass rather than processed into the final broom products. Production of finished brooms from broomgrass in Laos is growing in importance.

Production

- Broomgrass production is widespread in Luang Prabang with the greatest quantities coming from Phonxay, Xiengngeun and Viengkham Districts.
- Broom grass grows naturally in previously farmed upland areas and collected by farmers.
- Recently, farmers have been planting broom grass with the help of PAFO/DAFO with 28 hectares now in production by 15 production groups.
- Luang Prabang produces approximately 830 tons of broomgrass per year.

Marketing

- The main international buyers of quality broom grass from Laos are from Vietnam, Thailand and China.
- There are 20 major local buyers of broom grass, who mainly act as middlemen.
- Farmers sell broom grass directly from their homes, at local markets and in larger towns.
- The annual price of broom grass varies widely is based on quality, overall production and timing.
- Farmgate prices range from 5,000-12,000 Kip per kilogram.

Opportunities

- Expanding areas of natural production by means of village level protection plans.
- Expand the cultivation of broom grass by individual farmers with technical support
- Establishment and strengthening of broom grass production and marketing groups.
- Establish and strengthen local broom production groups and establish/expand strong domestic market linkages.
- Improve broom design based on market research.
- Support private sector efforts to establish Lao based broom factories and export options.



Lao Benzoin is the resin extracted from the *Styrax Tonkinensis* tree. Lao benzoin, also known as “Siam benzoin”, is considered the highest grade of benzoin and is used in fragrances for perfumes and other such products. Benzoin is also used in incense and for oriental herbal medicines, but the Lao benzoin quality is rare and highly sought after. It grows in the highlands of Laos as a late emerging species in rotational agriculture systems.

Production

- Benzoin is found in 7 villages in Phonthong District.
- 232 households manage benzoin trees in 762 hectares of land.
- Benzoin is managed as communal or private trees, depending on the community.
- Annual production of benzoin is approximately 17,000 tons per year.

Marketing

- Marketing of benzoin is controlled by only a few buyers: Anouphab and AgroForest.
- Due to the high price of benzoin and competition for harvesting, it is often harvested early reducing quality and prices.
- PAFO has been supporting marketing in the benzoin sector for many years.

Opportunities

- Land use plans that identify specific areas for benzoin production and their management need to be continued.
- Tenure of benzoin trees is needed to ensure better management and timely harvesting.
- Improved collaboration and equitable marketing between the two main buyers and the sellers of benzoin.
- Establishment of recognized benzoin producer groups.
- Reduce alteration (improve quality) of benzoin via establishing Participatory Guarantee Systems linking farmers to end users.
- Explore the potential for establishing a Geographical Indication for Lao Benzoin

