



FACT SHEET

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Sustainable Participatory Water Use in the Coffee Industry on the Bolaven Plateau in Laos: the Way Forward

STUDY AT A GLANCE

- Aim: to provide a short follow-up to the preliminary scientific study conducted in late in 2014 and early 2015.
- Total duration: 4 months (Sep. to Dec. 2015).
- Study commissioned through WWF-Laos & Oxfam partnership.
- Disseminated results and improved capacity of local stakeholders to conduct water monitoring measurements and water quality assessments before and after the washed coffee processing season.
- Explored engagement strategies to synergize livelihood improvement and conservation.
- Assessed coffee-related encroachment in the Dong Hua Sao National Biodiversity Conservation Area (NBCA).

FINDINGS

- Surface Water Quality: decreases after coffee washing season. Overall the surface water quality is healthy, excluding several sites that indicate significant environmental impacts. Impact level of larger coffee businesses is far greater than smallholder coffee farmers. This is due to the amount of production and discharged wastewater.
- Underground water quality: Not at dangerous levels, and can be used for domestic purposes - but not drinking purposes. Three sampling sites showed a marginally high acidity level. Underground water at sites with nearby coffee concessions, plantations, processing plants, factories, housing and hotels are contaminated by human activity.
- Extent of coffee-related encroachment of National Biodiversity Conservation Area: Prohibited conversion into farming, logging and plantation activities at the edge of the protected area and nearby settlements. Encroachments due to coffee, upland rice, corn, cassava and rubber plantations.

ENGAGEMENT STRATEGY

- A comprehensive strategy to promote coordinated development and management of water, land, and related resources to mitigate the effects of the growing local economy and protect the vital ecosystems of the Bolaven Plateau.
- The strategy plan calls for “ACTION”, contained in six themes with four objectives:

Objective 1:

“A” - “Ambitious policies and action” for the management of water and forests towards sustainability in development, and enhancing existing laws and regulations for the preservation of water and forest resources.

Objective 2:

“C” - “Capacity building” and strengthening of skills and knowledge including the use of “T” - “Technology” and enhancing access to “I” - “Information” within the framework of supporting natural resources management and policies for all stakeholders.

Objective 3:

“O” - “Ownership” of natural resources by all stakeholders.

Objective 4:

“N” - “Networking” and integrating collaborative partnerships among all stakeholders. The importance of protecting water and forest resources must be addressed through efficient and effective management and implementation of the laws of the Lao PDR by all stakeholders, from smallholders to large companies in coordination with local authorities. This will ensure appropriate measures are taken to improve and safeguard the quality of water and forest resources as part of the efforts to restore and sustain the Bolaven Plateau’s ecology.

Villages at risk (and how to mitigate risks):

Main reasons for contaminated freshwater in study target sites:

1. **Contaminated water** or wastewater discharged directly from large-scale coffee processing operations.
2. **Inappropriate location of wastewater treatment ponds** and permeation through the ground.
3. **Other activities** including domestic and agricultural water use.

Villages at risk:

- Ban Nong Kheungyai and Ban Theavada-Vat Loung: high acidity levels.
- Ban Phu Damkhuan: coffee waste on-site and illegal wastewater discharge.
- Ban Lak 36, Ban Setkot, Ban Phumako, Ban Nonglae, Ban NongLuang and Ban Lak 15: Coffee washing and domestic washing.

Overall, surface water: 9 out of 25 villages surveyed are a source of concern. Underground water quality is not at dangerous levels in the 5 villages that were surveyed.

Immediate risk mitigation needs:

1. Awareness raising at the community level and capacity building support and advocacy to local authorities and communities.
2. Promotion of the official provincial strategy for the Bolaven Plateau’s 13 headwaters.
3. Setting up of village volunteer committee to clean and maintain upstream headwaters.

Risk mitigation (long term):

1. Use coffee waste for bio-fertilization. Need for increased technical knowledge and capacity building.
2. Engage small entrepreneurs to form coffee associations to improve waste management.

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