SCOPING STUDY FOR DEVELOPMENT OF COFFEE SECTOR STRATEGY FOR XIENG KHOUANG PROVINCE

Part 2:

Coffee sector development in Xieng Khouang province, as a pilot implementation framework for the Lao Coffee Sector Development Strategy

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Contents

Acronyms

ACIAR	Australian Centre for International Agriculture Research
CNCL	Conseil National du Café Lao (Lao Coffee Board)
DOA	Department of Agriculture
FO	Farmers' Organization
ICS	Internal Control System
IFAD	International Fund for Agriculture Development
LCCI	Lao Chamber of Commerce and Industry
LCSDS	Lao Coffee Sector Development Strategy
NTFP	Non Timber Forest Product
PAFO	Provincial Agriculture and Forestry Office
PICO	Provincial Industry and Commerce Office
PPI	Provincial office of Planning and Investment
TABI	The Agro-Biodiversity Initiative
TPPD	Trade and Product Promotion Department
XK	Xieng Khouang province

Foreword

Recent history of Lao Coffee Sector governance

Aware of the necessity to setup a coherent management of coffee value chain, Lao authorities launched a series of measures to improve its organization and institutional frame. This is how the Lao Coffee Board (LCB or CNCL in French) has been created on Prime Minister decree the 25th of June 2010. Initially its main objectives were to:

- Pilot a strategic action, a national policy to develop and to promote Lao coffee.
- Pilot, support and monitor associations, cooperatives, producers groups in the implementation of national policy, related laws.
- Study and submit a policy in terms of protection, promotion and development to be approved by the GoL.
- Analyze the situation and identify keys issues, inform on markets and prices, new technologies enabling an increased value added, reducing investments costs and improve producers' incomes.
- Coordinate, raise funds and experiences form national and international bodies.

The first action taken in this frame was launched in 2012 and focused on the development of the Lao Coffee Sector Development Strategy (LCSDS) through a participative approach. All categories of relevant stakeholders were consulted to gather information on actual situation, own issues and needs to each one. An iterative approach allowed then to adjust versions of Strategy document based on successive feedbacks that contributed to improved ownership of sector partners. The final Strategy by 2025 was finally officially approved and validated on August 2014.

Given the distribution of coffee production and chain in the country, the LCSDS elaboration process involved mostly stakeholders from southern provinces. But such framework also considered future expansion in *non-traditional* coffee growing areas, among which northern provinces are expected to become the second production zone in the country. Challenges in introduction of such new sector are real, but provinces like Xieng Khouang offer *a priori* better implementation possibilities to the National Strategy, as the overall chain from production to commercial activities has to be built entirely: in other words, all limiting factors in Strategy implementation in the Bolavens Plateau – linked with older "individual" practices – do not exist yet in the North, the context being so far *free* of strongly marked coffee stakeholders preponderance.

The present study does not aim at developing a *sub-strategy* for Xieng Khouang's coffee sector development, but precisely at assessing modalities to translate the National Strategy into an implementation plan, according to provincial specificities and potential. It is also a relevant opportunity to mobilize the CNCL by arranging an application frame for its responsibilities.

Introduction

Among Laos Northern provinces, Xieng Khouang's coffee sector presents more development progress in terms of production and trends (except in Phongsaly, but where the dominant system is unsustainable so far). This is actually translated by increasing interest of villagers and economic stakeholders for coffee products, resulting from several plantation initiatives conducted by development projects. Despite few cases of discouragement due to lack of markets, coffee seems to progressively integrate farming systems without affecting other production activities[1].

As a cash crop, coffee remains quite unknown in the Province in terms of cultivation, processing and marketing. Nevertheless, an emerging *group* of farmers and technicians (who received specific trainings) are contributing to promote coffee as a key product for next future. Such local dynamic could be strengthened by improved organization of farmers and increased involvement of government partners, particularly by bridging production and trade aspects.

Coffee production is promising in Xieng Khouang, with suitable bio-geographical conditions and agricultural calendars that *generally* do not overlap. This is mostly the case in plains or elevated valleys of central Province where resources are more accessible and favourable. Schematically, we can identify two situations where coffee chain presents variable development and management possibilities: (i) mountainous and remote districts where degradation of natural resources and difficult access are main limiting factors, but where coffee cultivation could represent a relevant option to promote sustainable development (see report on coffee production initiative in Nonghet), and (ii) central and southern districts where rice and livestock productions reduce the pressure on natural resources through incomes these activities generate, and with better management of production/conservation areas. In the first scenario, coffee can be seen as prior subsistence mean before further development, while in the second one coffee is an extra cash crop in some systems already profitable – and sometimes more sustainable for households.

Coffee chain is at its very beginning in terms of governance and organization. The overall province relies on one person for technical aspects of the production (currently assigned at Khoun's DAFO), while management of commercial issues are not allocated to any stakeholder yet. While starting by launching cultivation was relevant (at least to scientifically confirm that various provincial *terroirs* are suitable for coffee), efforts should be now put in sector structure and coordination building: existing plantations and expansions to come soon will attract more buyers, rapid increasing of overall production may impact coffee quality, pressure risks on land and natural resources are real, etc.
What are the priority actions and governance model to be defined, in order to drive Xieng Khouang's coffee sector development in accordance with the National Strategy? Which options could gather farmers' socio-economical and environmental benefits, and private sector interests?

The second part of this scoping study is addressing three successive aspects of coffee sector in Xieng Khouang: (i) a first observation and analysis of current situation will allow us to (ii) assess feasibility or conditions to adapt coffee-related national policies to the provincial contexts, and finally to suggest a (iii) tentative roadmap with key interventions to build a shared framework then reinforce coherence in development activities.

[1] This has to be moderated depending provincial specific areas, considering differentiation of systems and situations (bio-geographical and socio-economical).

1. Current situation of coffee sector in Xieng Khouang

1.1. Overview of production status

<u>A recent product in the Province</u>
If some coffee was planted in Xieng Khouang during the 20th century (according to some villagers testimony), the major introduction took place in early 2000's with IFAD support (around 50ha), followed by SADU around 2010. The earliest phase knew poor success among farmers due to non-consideration of market sides (then conducted most of farmers to cut coffee trees), but SADU contributed to maintain at least 100ha by linking farmers with few buyers. More recently, TABI and GPAR/ACIAR projects took over the promotion of coffee planting (+ 50ha) through technical support particularly in provision of seedlings and organization of trainings. An "important" participation to coffee sector has to be mentioned as it reflects the attention given by local authorities to this matter: in 2014-15 the Governor of XK's Province allocated a specific budget to fund seedlings and basic nursery/processing equipment to coffee farmers (100M kips, about 12.000Usd).

Whatever these former projects apparently concentrated efforts in one district, or if those Khoun's villages own better the coffee production initiative, there seems to be a *conflation* between "XK's coffee" and "Khoun's coffee" where the major part of plantations is located. Technical level of farmers appears (on average) higher in Khoun where the only "coffee technician" is also assigned (DAFO, Ms Siphan); this also explains why accurate data could only be found here.

<u>Production features</u>
Coffee is currently grown by 961 households in 46 villages of Khoun, representing 375ha[2] in the district where were produced 12T of coffee parchment in 2014-2015 and 9T in 2015-2016 (frost damage).
Other production areas, less significant so far but presenting high development potential as well, are located in Nonghet (see report part 1), Phasai, and Pek[3] districts.

Interesting to notice that farmers arranged nurseries spontaneously in many cases, most of time at extended household scale, using local material and their own ingenuity (see in annex 1). If technical knowledge or practices could always been improved, such *resourcefulness* demonstrates relevant ownership and extension possibilities beside development projects direct support. This will maybe help coffee stakeholders to keep optimism, in a context where some villagers are even cutting coffee trees as "no buyer showed up last years".

Arabica Catimor is almost the exclusive variety grown in XK (for more details, see part 1 of this scoping study, annex 8) but a small-scale initiative lead by a private company is currently producing alternative varieties (see bellow).

<u>Few but some relevant production models</u>
Production systems or models are of two types in central and southern districts, coffee being planted in young forest or older fallows (compared to Nonghet for instance).

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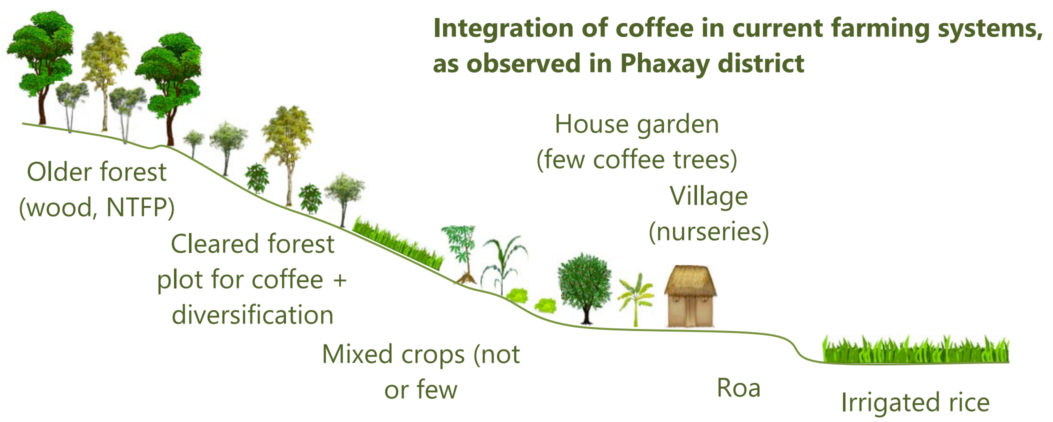
[2] Among which 50ha were affected after recent frost of January 2016. Farmers and technicians often mentioned total loss, but field observations confirmed that coffee trees rarely died entirely as strong shoots are growing after only few months: production is delayed by 2-3 years but is not compromised.
[3] For accessibility reasons, field visits could not be made in Pek district.

In the first case, the forest plot is cleared by weeding and cutting of intermediary trees, this practice offering good shading conditions but limiting natural protection against frost/drought effects and providing only one yearly income. Maintenance works occur only twice a year, which is not enough to keep low level of *weeds* regrowth competing with coffee for nutrients and sunbeams, or to limit pests risks.

The second model (observed in Phaxay) is more integrated in terms of plots location and plants diversity or combination: the U-shaped valleys are basically organized in two or three stages from paddy fields (flat areas) to slopes, then tops of bordering hills. Density and age of forest cover is on average higher than in slashed and burnt areas, where communities have no or few flat fertile lands: pressure on forest and NTFPs is then much lower here. Lower part of slopes are physically organized by mixed farming activities (upland rice, peanuts, vegetables, fruit trees, maize or cassava as livestock feed, fodder, etc.) constituting a mosaic of small plots on cleared zones without trees, between habitations and forest. Coffee is planted at intermediary levels where not all trees have been cut, in order to keep two stages of shade. Plots are arranged to enable horizontal coffee lines (which is not that clear in the first model mentioned earlier) and mixed with medicinal plants or fruit trees. Maintenance is regular but soil covering could be improved by – for example shifting peanuts rows up to coffee area.



In these two cases has to be addressed the question of support or improvement of soil fertility, as farmers believe that planting coffee in natural forest does not require so. Methods of compost production could be easily implemented in such farming systems where livestock and rice wastes provide essential basis of raw material. Growth and health of coffee trees would also get positive impact.

Coffee growing systems in Nonghet (more detailed in the first report) are in general more uncertain in implementation control and development possibilities. Communities there are constrained to adopt short-term practices to ensure yearly subsistence and, with limited access to technical knowledge, can hardly adapt any new farm management set up necessary for coffee production. Average degradation level of natural resources does not offer optimum conditions to get encouraging agronomic results, if coffee trees were not strongly impacted by frost. Development potential for coffee production in Nonghet is real but *more* challenging than in other districts where coffee is already implanted.

1.2. Market situation and possibilities

<u>Only "two" buyers identified at village scale</u>

Obviously, farmers' interest for coffee growing is directly linked with presence of buyers showing up at their villages and offering purchase guarantees for next harvests. Absence of buyers only two years after planting can lead farmers to simply cut coffee trees, as observed in Phaxay and Nonghet (where frost damage is an additional reason). Producers who kept and maintained coffee for a decade seem to be the most aware of coffee demand and development trade in the country: Keoseth group for instance whose representatives travelled to the Bolavens, who attended specific meetings on coffee sector in Vientiane or Luang Prabang, and are in closer contact with Khoun's DAFO technician (note that for them, coffee activity is not "constraining" in terms of labour demand, and is not in competition with other crops in forest plots).

Café Meuang Xieng is a young company set up by a former partner of Saffron Coffee (Luang Prabang) for whom he used to facilitate supply from XK since 2012. The company bought 6T of coffee parchments in 2014-2015 (Khoun district) and wanted to increase quantity this year (2015-2016), but only 4T were purchased because of frost. Most part of coffee was sold to Saffron so far (parchment), the company having now a couple of customers for green coffee (Tryo Coffee, and Korean coffee shop based in Vientiane) and being in contact with roaster to identify markets in the USA. Green coffee is processed in Phonsavanh where Café Meuang Xieng adapted a rice huller (interim initiative before getting a specific coffee huller). Few roasting test and local selling were tried but with few success due to the limited demand in provincial capital. Pricing is not object of any specific policy or method, but information on current market in Southern provinces will base negotiations with villagers.
In the first year, the company purchased only parchment but more recently farmers preferred selling directly coffee cherries, as they mentioned not to be confident enough to process quality (see first report p.8, §3.2: *"why is it important to enable farmers to process parchment?"*). A trader is hired during harvest period to contact and inform villagers on daily purchases, who will display cherries the same day in the village square but without merging family harvests. Quality of red cherries is roughly checked on top of bags then during pouring in new bags (no floating). Pulping is made at the village before wet parchment is transported to Phonsavanh (about 30-45min drive) where basic equipment for washing and drying has been installed.
Despite its small size and volume of activities, Café Meuang Xieng has a proper vision of coffee and commerce development in the province, based on quality of coffee and in relations with producers. A nursery arranged in Phonsavanh shows future expansion of Arabica growing in village partners where the company will provide or sell seedlings to most committed farmers (1000 kips/unit). About 10.000 seedlings are ready for planting, including 50% of Catimor and 50% of Java and Typica varieties; more marginally, some Gesha cultivars have been germinated. Such initiative must be underlined in a context of Catimor preponderance. Furthermore after observation of these plants, new in Northern Laos, that are growing quite quickly and that look very healthy one year after germination. The company vision also confers importance to farmers' empowerment and capacity improvement: its owner would prefer collaborating with an organization (cooperative type) to increase chances to control quality, to offer consistent supply, and to ease logistics aspect. He is also planning to build a dry mill at half way from Khoun that

could be used later as an observation centre for farmers interested in constructing their own mill in the future.

Café Xieng Khouang is another company present in XK's coffee landscape but with a totally different approach (see previous report, p.8 §3.1), much less turned toward community development. There seems to be a confusion between company's expected level of activities (and volumes: 400T) and actual achievements, maybe due to misunderstandings during the interview: it is so far difficult to assess actual progress of on-going procedures for land concessions (no registration found at PICO), farming contracts (PAFO) and dry mill/factory building (POPI). What we heard the most among villagers was that the company did not comply with its engagement to buy coffee during the last campaign, which discouraged most of them to oversee further collaboration.

A *Chinese company* (name could not be found) tried an attempt in 2010 to promote coffee cultivation in Khoun and Phaxay districts, providing free seedlings to farmers but imposing them to cut all trees; certainly a similar model used by Changsenda company in Phongsaly, but XK's farmers did not apply these directives. Anyway these investors left before coffee was productive.
Local traders (mainly Vietnamese) ever bought few quantities of parchment to roast and sell grounded coffee on local markets. This practice seems marginal and did not take place for last campaigns.

<u>Farmers organized around sales</u>
Ban Pieng and Thantay (Khoum Keoseth, Khoun district) are neighbouring villages where production, coordination and more generally importance given to coffee are so far the most advanced in the province. One coffee farmers group exists within each village, both constituting Keoseth group. While we cannot talk about proper association or cooperative (yet), coffee producers are drafting an organization model based on a very pragmatic need: unity of members in pricing decisions. Plenary discussions take place according to specific issues, but systematically about one month before harvest period to set selling price of cherries. The objective is to avoid too low prices for the overall Khoum Ban and to prepare each household for bargaining, if needed.
Wherever such initiative comes from, it is crucial that formation of farmers' organization finds its starting point in a collective approach to tackle an actual and shared issue. This gives contents around which communication or information improvement will possibly enable further governance building.
Keoseth coffee farmers' group can also be mobilized to advise members on technical issues, or to emit particular requests as a single voice. For instance during the last campaigns was negotiated a contribution with the buyer (additional to coffee purchase) around 200-500 kips for parchment and 100 kips for cherries, to feed into a *saving* fund managed at Khoum Ban level. Beside group *administration* expenses, priority use of such fund should be a coffee-related activity (attend a meeting in another province, organize a training, or to receive local authorities) but could also be allocated to social events or as a low-rate loan to mass associations (women union) or to individual members. Despite its small size (maximum 4M kips), this fund can be seen as a precious basis to cement members, and teach collective experience of group management for further extension in terms of diversity and volume of activities. This existing group, lead by a woman, is strongly consolidated and members are even reluctant to receive more villages "who could producer lower quality, use pesticides or sell coffee at lower price, which would affect the overall group".

Coffee products and destination markets

In complement with cherry/parchment selling issues discussed earlier, the majority of coffee farmers we met are not aware of ins and outs of processing by themselves after harvest, mentioning the weights rate raw/dried like a constant variable. This could also find reasons in workload convenience or in doubts in processing quality parchment. Anyhow this shows remaining needs to improve knowledge and to introduce practical notions of coffee economy at household scale, even if such new product is grown and brings incomes as an extra-activity beside (behind) lowland rice and livestock. Importance of processing parchment is even higher in remote poor areas (Nonghet) where distance does not allows much choice, and where coffee could become the main cash crop. Furthermore, processing works and equipment are a physical link between farmers that can be used as relevant and tangible starting point to guide further organization.

Companies more turned toward collaboration with farmers, like Café Meuang Xieng, are ready to participate to processing capacity improvement and by then to build trust about quality management. Some other actors seem not ready to start building such trust, and prefer getting raw material and convincing farmers to sell coffee as such at risk of no buying.

Some roasting attempts were tried after provincial and SADU supports (with basic equipment) but showed that local demand is small if non-existent. Coffee consumption – or at least "real" coffee (opposite to instant one) has not integrated habits in most rural areas of Laos; it took decades in the Bolavens to introduce and develop such *coffee consumption culture*. Beyond technical difficulty or material investment required to process roasted coffee, returning to a perishable product is not relevant in a current context where one priority is to strengthen and improve farmers economical management by constituting stocks.

Xieng Khouang presents interesting potential for quality or origin certified coffee, as long as sustainable practices are applied. Coming and future expansion of plantations shall be managed in accordance with minimum standards requirements in order to enable faster registration possibilities. Two distinct situations as an example of inequity in front of development of quality-certified production: fortunately in plain areas, farmers appear relatively *reluctant* to use chemical inputs. Unfortunately, more mountainous and remote lands are suffering from massive contamination. Somehow more challenging, certification management could bring higher gain in such areas needing a vector to drive farming system mutation toward sustainable practices. More generally, the growing notoriety of XK's products is about to open a wider window for domestic and international trade (the two companies have connection with western quality markets); certification – as development tool but not as a final *prestige* objective – could bring better protection and added value to the producers. Experience in Khao Kai Noy or organic vegetable cooperative shall inspire coffee stakeholders, and XK's PAFO has relevant ICS officers to facilitate such procedures.

1.3. Trends

Disparities between remote/mountainous and plains districts

Coffee sector development in Xieng Khouang could not follow a single provincial approach and has to consider two main situations in terms of natural resources and socio-economical status, and integration modalities to existing farming systems. Disparities are schematized and compared in the following table (at their extreme points or major trends).

	Plain areas and upper valleys (Khoun, Phaxay, Pek)	**Mountain uplands (Nonghet)**
Access	*Good* and current improvement of service roads	Remoteness, some areas seasonally unreachable
Landscape & natural resources	Irrigated paddy fields Soft average sloping Forest availability (surface and ages) Average high soils quality and fertility Abundant & easy access to water resource	Flat lands shortage High average sloping Forest scarcity, majority of *young* fallows Quick soils erosion and depletion Disparities in volume and access to water
Farming systems	Rice (also) as a cash crop, surplus Livestock breeding (saving) Diversity of small incomes Windows for labour availability Extendable production area	Upland rice shortage trend Few and released big livestock Maize mono-cropping, intensive production NTFPs depletion Labour shortage, field works difficulty Landscape *saturation*
Coffee as a cash crop	Seen as an extra income Suitable land availability Few overlapping with other productions Opportunity to improve landscape management Livelihoods improvement	Seen as an alternative to maize (main cash income) Few suitable lands available, transition periods mostly required Requires closer management of agricultural calendars Opportunity to introduce sustainable practices Subsistence

<u>Improvement of coffee-related technical knowledge is a priority</u>

Despite a better average knowledge in Khoun (compared to Nonghet), the capacity to manage, maintain or improve coffee plantations/production remains low in most of observed cases. Farmers are able to produce their own seedlings, know about pruning, often arrange mulch after weeding, etc. after they followed specific trainings or through peer-to-peer advice. Yet, such good basis must be deepened in its application and extended, particularly in terms of coffee ecology, prevention against risks, and quality management (including post-harvest activities). Technical training topics are listed in annex 9 of the first report.

Relying on one technician for the overall province cannot be relevant to upgrade the current production or to oversee coffee expansion. A whole training and experience sharing system needs to be setup to enable better control of production by farmers and to provide quality extension services for technical and commercial aspects.

<u>Farmers' interest for coffee must be retained</u>

Lack of buyers and frost inflicted heavy blows to coffee in the Province, the first being even more radical with some cases of 5-6 years old trees cutting, full of cherries. On the very short-term (harvest starts around November in this area) some buyers must be contacted to seek for sales of total production in the four districts. Urgency for this campaign 2016-2017 does not give much choice about coffee product sold by farmers, but this could be the opportunity to sensitize

them to sell cherries *for the last time*. Small-size company like Café Meuang Xieng may not have sufficient resources to purchase the overall production, but should anyhow be promoted, as it is so far the only actual buyer present here (Café Xieng Khouang disappointed Keoseth farmers last year, they seem now reluctant to carry on any further collaboration if they had choice to do so). The relevant initiative to put producers and possible buyers around the same table, which was unfortunately not followed, could restart as soon as possible to facilitate and size commercial operations, at least for this company. For future campaigns, a commercial network has to be initiated and well framed.
About frost, the risk to see farmers drop production is higher at young stages of coffee trees growing, and could be better mitigated with proper soil covering, trees protection during maintenance, and by arranging different vegetal stages. Older plantations (Khoun, Phaxay) are the less damaged while Nonghet suffered the most, corresponding precisely to the third year after planting when coffee would have started being productive, depriving farmers to see actual outcomes of such new activity. The challenge is to keep that momentum by improving existing plantations and supporting trees renewal, but here as well by bringing some possible buyers or anyhow demonstrating the presence of markets. This is also part of the transition management sometimes necessary to prepare uplands to coffee plantation (see report 1, p.8), or the identification of incentive activities allowing households to *wait* till coffee productive stages.

<u>Some farmers' organizations in formation</u>
FO notions or related terms are quite nebulous depending on the interlocutor (public or private sector, farmers themselves) and actual status or contents of such groups[4]. This kind of confusion comes certainly from gaps between what stakeholders observed in other contexts (Bolavens, Phongsaly among others) and actual specificities of agriculture sector in the province, or from *compartmentalized* responsibilities keeping production and commerce separated in local policies or remits.
We saw earlier that the most advanced level in producers' organization took shape around sales and pricing, one *tangible* issue. Collectively managed fund and good communication are strong assets to base further construction then develop governance or possibly capacities to deliver services to members. Nevertheless, overall vision or responsibilities of this *group* are barely formulated: toward which goal, role and structure, representativeness and governance model would coffee producers enable a prospered development of their activity with shared benefits? This addresses the necessity to identify specific strategies considering various contexts and contributions of coffee production in existing – but sometimes moving – landscapes and farming systems. In other words, no *turnkey* model would be relevant for the overall province, but in-depth organizations design based on existing synergies and particular issues (bio-geographical, technical and economical) shall guide further construction.

Keoseth group can inspire others to build a cooperative model in the future, after diversification of remits and proper management in place (linked with the expansion of production). Keeping a single role in price unity may show limits once products volume will be significant, as quality and synchronization of *deliveries* (for processing notably) need to be monitored earlier. Promotion and marketing, also part of a cooperative set of duties, are also capacities to be built on the medium term.

While *cooperative* notion is understood to be mostly turned into commerce and marketing, the association model connotes more production aspects: organization, production means, technical service/supervision, harvests grouping, etc. As mentioned above, cutting each stage or aspect of

[4] In Lao language, *khoum* is the single term used for administrative village cluster or some stakeholders' group

work chain is limiting farmers' empowerment, reduce chances to catch higher added value at grassroots levels, and compromises overall groups coordination and management. The contributors to FOs building will then have – beyond working on terms or rhetoric – to invest efforts in the articulation of activities and people consolidated around simplified management model at the beginning. The case of Keoseth collective fund and methods to ensure price unity demonstrates that farmers can carry out such issues with autonomy as long as contents bases organization (and not the opposite).

A wider enterprise launched by ACIAR introduced a concept of coffee farmers' "network" which already made relative progress in communication among concerned actors, particularly in the identification (not yet election) of six farmers representing the six clusters where coffee is grown in the province (46 villages in total). The direction or management of such organization still has to be defined (TOR, funding, etc.) and core objectives are linked with collective sales, marketing support and technical coordination. According to interviewed farmers, main challenges lie in "seeking for unity among member with divided interests (or individual practices), still poor management or coordination skills, and limited budget. All has to be built" but further assessment may reveal a precious stand to build a kind of *federation* of coffee producers in the Province, weighting in sector management decisions (Southern provinces are still struggling to define and constitute a farmers' voice in the Lao Coffee Board, due to division and complexity of actors games).

1.4. Sector management

Among other sectors including more developed ones in the Province, coffee is at infant stage where actors are just starting (in the best case) to get knowledge about technical, economical and *cultural* dimensions of the product. Yet, coffee sector management is facing structural issues limiting possibilities of public sector stakeholders to apply their responsibilities, while absence of communication between offices/departments (PAFO & PICO) disables coordination of the whole value chain: production and process, quality management will ideally aim at reaching identified standards; coffee products commerce is subject to specific laws or regulation depending on their nature and market destinations, etc. National policies (and divides) could find a common ground in coffee study-case, which is a core objective of this suggested implementation framework. Most of times, such responsibilities must be identified before being allocated and implemented by relevant actors.

Some sector management-contributing actions could begin or be continued right away, like this database prepared in Khoun district on production aspects that will enable previsions of volumes, productive periods for instance. A directory of commercial partners (also suggested to UDIN project) would base further contact making and network building to identify coffee buyers. This round table organized in 2014 could be the basis of a sector management committee or working group, etc.

2. Implementation framework of the National Strategy

Among Laos Northern provinces, Xieng Khouang presents relevant characteristics to be among the first ones to translate the LCSDS into an effective *framework* or development *programme*. If not the biggest *non-traditional* coffee production area in terms of volumes, cultivation is significant and on the good way to increase the coming years; coffee as a vector to promote smallholders and sustainable production is somehow more advanced due to different factors mentioned in the first chapter. How to use such potential wisely to ensure coherence in the development of the sector, and which challenges would stakeholders face by doing so?

2.1. Opportunities and drawbacks of a *coffee-virgin* context

Recent experience showed the high complexity in setting the national strategy as a common framework for all categories of coffee sector stakeholders in Southern provinces, where for decades each one has been moulding economic and commercial environments, got into habits of working "individually" with only governmental regulations to frame activities. Strong actors games implying sometimes heavyweight political and economic players characterise coffee landscape where vertical and horizontal interests often overlap, local trade being sometimes as sensitive as a *private turf*. A positive impact is the emergence of producers' organizations, managing their development by bypassing local risks to reach international niche markets. Other categories like middlemen or wholesalers also attempt to form groups or networks to share discussion on specific issues of the profession. The association of exporters, which became later the Lao Coffee Association, aims at extending its representativeness to other categories, including producers. It is today the major representative institution of coffee private sector.

Xieng Khouang context is not marked by preponderance of one production or one major actor, coffee sector just begins and progressively integrates agriculture sector. We saw earlier the few stakeholders – beside producers – involved or having significant knowledge about coffee *world*. Space is free to set activities on relevant basis.
Nevertheless different initiatives are showing some signs of political will and institutional progress: the provincial agriculture development strategy, which is being adapted at districts levels, recently integrated coffee as priority productions among rice, livestock, maize and vegetables; an *investment* in one technician technical training and capacity building (from Khoun's DAFO) allowed the availability of a resource person for coffee-related matters; the governor's office supported coffee farmers with the provision of basic equipment, among other examples.
A *virgin* context also present risks as it is actually the case with one company aiming at monopole, relying on support from local authorities to reach that status. The risk here is to see unbalanced development of coffee sector where – given the size still modest of the production and the level of organization among producers – will tie farmers in a position of weakness compromising self-development opportunities. Besides, technical practices could hardly be controlled and regulated to comply with sustainability requirements.
Another risk lies in possible perturbations that intensive coffee production could create in existing farming systems or landscapes, where natural resources and communities' future is uncertain. Replacing maize with coffee following Phongsaly's model would not make sense, spoiling the landscape "balance" of plains and high valleys would be a major loss. Coffee production would become a priority or not, first depending on farmers' choice after detailed introduction of *pros and cons* and serious assessment of economic relevance; competition with other agriculture activities will be determining (at the opposite synergies can be found) in coffee integration success, although promotion should be more supportive in upland areas where farmers' do not foresee much choice for the short-term.

The lack of knowledge and organization around coffee sector is a current issue that could be turned into an opportunity to build or shape stakeholders' remits along with concrete activities. This includes also the dawning coffee-related business environment where PICO (and PPI) will enter the scene with new – maybe more concrete interventions.

2.2. Priorities and levers

Whether the overall production as well as *considerations* for coffee tends to increase in the province, such momentum is still weak and needs to be maintained through immediate activities (e.g. promotion and incentive measures to make farmers keep their plantations, facilitation and arbitration of first buying contracts, etc. *See last chapter*). It means a quick choice of interventions on the short-term in compliance with the general framework, which will require a longer period of maturation before implementation.

According to such factors and to actual assets or limits identified in the current context, three priority areas are defined (contents will be detailed in the tentative draft of roadmap):

- Technical priority
  - Conservation and improvement of existing plantations
  - Preparation of planting material and identification of coffee extension areas
  - Technical training focusing on first stages of production chain and on maintenance

- Market-related priority
  - Facilitation of commercial relationships with present and possible buyers
  - Training / *popularization* of sales/buy-in contracts with farmers
  - Possible involvement of PICO in commercial matters

- Governance priority
  - Assist coordination of farmers' during the coming campaign (harvest, post harvest and sales)
  - Facilitate meetings and discussions on pricing, introduction of basic coffee economy notions, bargaining *hints*
  - Organize the supply chain (scheduled deliveries, pre-sorting, market place arrangement, grouping and transport, etc.) considering buyer(s) demand

This set of priority actions will provide a chance to observe strengths and weaknesses of each actor during a first "test" period traced on next campaign activities (harvests planning and collaboration with Café Meuang Xieng could start on October-November, effective collect and sales will start around November-December). One objective is also to have a closer look from the inside, on how things are organized and done among farmers, then to point specific strengths, gaps and limits in their way to carry out the campaign.
Beside (and scheduled not to interfere with time-related priorities), promotion and preparation of coffee expansion are crucial but will not start from nothing: relevant examples do exist in plain and mountain districts regarding decentralized nurseries and plot arrangements; facilitators' job will consist in technical monitoring and bridging farmers initiatives (training of technicians will be addressed later).
FOs building is a longer-term support requiring a prior formulation of own visions by farmers after a series of information sessions and other trainings to assess suitability / feasibility of specific organization models. Here again, we suggest using concrete contents to build up such articulations and define responsibilities; construction of groups' wet processing centres appears as a relevant option in both high valleys areas and Nonghet districts.

2.3. Short stakeholders' responsibilities analysis

Beside technical and economical results, success of this implementation framework will be evaluated according to the level of ownership and governance reached by actors in charge. All stakeholders' categories do not exist yet in XK's coffee sector (young value chain) but the small size of coffee activities so far offers the opportunity for governmental agencies to setup and apply their remits more *easily* before the growth and diversification of stakeholders caused by sector's development. Obviously, efforts would be made to improve intra and inter-offices collaborations.

The following table presents a non-exhaustive summary of coffee-related responsibilities for the different concerned categories.

Organization or stakeholder	**Department or entity**	**Core or suggested responsibilities**
PAFO-DAFO	PAEC-DAEC	- Technical extension services for production and processing-related activities: monitoring, advice, quality management & inspection (from the bean to the parchment) - Promotion and support to the constitution/development of FOs and farmers' network building - Contract farming terms and arbitration (with PICO)
	DOA	- Diffusion of technical information, technology, innovation - Genetic diversification (varieties/cultivars) - Integrated Pest and Disease Management - Good Agriculture Practices - Certification procedures and monitoring (ICS) - Analysis and phyto-sanitary certificate (export)
	Cross-departments	- Coffee / livestock management and synergies - Agricultural calendars templates - Coffee database management
NAFRI		Research – development: - Ecological and technical integration of coffee in representative farming systems, - Comparison of various Arabica commercial varieties, - Coffee agroforestry
PICO	CCI (to be verified)	- Registration of private companies with coffee-related activities - Sales/buy-in contracts facilitation and arbitration - Market information system - Support to traders association building - Certificate of origin (if export, + contract) - Records and coffee business database
	TPPD	- Promotion and marketing of XK's coffee (participation) - Buyers' network facilitation and updating
DPI		- Delivery and registration of licences (private companies or investors) or MoUs (development projects) - Land concessions management - Review of projects contents (infrastructure, factories, processing and storage facilities, etc.)
Coffee FOs (schematized: actual models could gather	Association	- Technical coordination of production and process, decentralized training - Supply chain management from the field to the association "centre", crops sorting

mixed responsibilities)		- Administrative and financial management of membership (for production)
	Cooperative	- Merging production (as above) and commercial activities - Business development - Quality and certifications management, buyers' specifications - Management of processing facilities, storage and crops merging - Centralized + decentralized administrative and financial management, loans, advances to production, etc. - Financial "autonomy" of producers' groups - Sales management - Marketing, promotion
	"Network"	- Prefigure a federation of coffee producers - Lobbying and representation, interface / consultation platform, information and experience sharing - Overall promotion
Private sector organizations (middlemen, traders, wholesalers, transporters, roasters, etc.)		- Organization of the demand, support to the introduction of standards - Access to supply negotiation and arbitration - Productive and responsible investment, creation of coffee value chain-related SMEs and jobs - Contribution to the creation of fair competition – business environment
CNCL Lao Coffee Board	Provincial coffee board	- Provincial coffee sector advocacy and steering in compliance with LCSDS - Support to overall sector & stakeholders following Strategy pillars - Inter-professional meetings, specific task-forces to address crosscutting issues and defend coffee sector stakeholders' interests - Fund raising and coordination of development activities - XK coffee sector database

Terms of reference for government agencies or FO's would have to be elaborated more into detail, as so far they remain nebulous if not just absent. Capacity building as well as governance mechanisms should take shape and gain efficiency along with activities and sector development, progressively and following a coherent approach structured around specific work plans. Creating new organizations without conferring them concrete contents, supervised and controlled by entitled instances, is a risk.

2.4. Adaptation of National Strategy goals and pillars to Xieng Khouang's context

The overall goal of the Lao Coffee Sector Development Strategy is to contribute to achieve the GoL's main objective of poverty reduction and improvement of livelihood of smallholder coffee producers and of other rural communities through the development of employment opportunities. Additionally, it is expected to contribute to the development of exportations, and the growth of the sector will contribute to the wealth of Lao PDR and generate incomes for the State through taxes. It *will also provide sustainable options for land use and local development. (Lao Coffee Sector Development Strategy, final version, 18/10/2012, CNCL).*

Anticipation of coffee development in the province at this stage offers windows to begin on relevant basis and take lessons from former works in the South or at government level in terms of actions ranking, consultation process and allocation of responsibilities.
The Lao Coffee Sector Development Strategy aims at four goals, and based on six pillars. It has a national ambition whether most information and data necessary for its elaboration were collected in Southern provinces; some coffee cultivation in *non-traditional* areas was already in place before launching works on strategy where of course, some components are still some way off compared to the Bolavens.

We suggest here to assess these national goals and pillars in regard of Xieng Khouang situation, and then to identify which key factors or issues could be highlighted in coming framework before their translation into measures or activities.

Overview of National Strategy goals in regard of Xieng Khouang potential

National policy goals	Potential in XK	Issues or risks	Scopes of work
Goal 1: Development of coffee production	- Suitable conditions for coffee growing (volumes + quality) - Lands diversity and availability[5] - Few phyto-sanitarian problems - Drivers for coffee production (Keoseth group, DAFO Khoun)	- Abandoning of coffee due to lack of incentive (market, emulation secondary crop) - Overall low technical knowledge and support - Districts disparities / access & natural resources - Land management and fertility issues in some areas - Risk of introduction of unsustainable production models	- Keep and reinforce the momentum for coffee growing - Strengthen farmers' technical capacities - Build the capacities of technical organizations and extension services
Goal 2: Improvement of the quality and marketing in order to optimize the added value and profitability of the Lao coffee sector	- Relevant initiatives of shade grown coffee models - No chemical inputs on coffee - Some other products certified in the province (or on the way)	- Lack of coffee buyers and economic stakeholders in general - No organization for process and commercialization - Poor control and tools for quality management - Absence of marketing and promotion	- Strengthen farmers' ability to produce and manage quality, including in processing stages - Build and frame an economic and business environment - Identify and promote assets of XK's coffee to target quality standards of different markets
Goal 3: Optimization of the share of added value benefiting to producers	- Presence of selling group(s), unity in pricing and minimum quality - General trend of coffee farmers grouping - Short value chain: +/- direct connexion with buyers	- Loss of added value at farmers' level (cherries sales) - Young FOs: limited vision, power, and TOR - Risk of emergence of unfair contract farming	- Development of FO's according to producers' actual needs or interests (institutional, organizational, technical) - General knowledge improvement on coffee economy, value chain and pricing. Market information

[5] Mostly in high plains / upper valleys districts

			systems. - Feasibility of fair-trade registration
Goal 4: Improvement of the efficiency and of the resilience of the Lao coffee sector and development of a partnership spirit among stakeholders	- Coffee progress in provincial agriculture development strategy - Potential to target niche markets (economic resilience) - Potential to spread agroforest models (resilience to climate change) - Dawning sector with few actors (eased connectivity building)	- Absence or poor coffee sector overall guidance - Weak regulation or control of economic and technical sustainability - Irregular implications of agencies in charge and discontinuity in coffee-related initiatives	- Promotion of coffee as a development vector and as an alternative to ecological / socio-economical threats - Organization of coffee sector governance and mobilization of stakeholders

Tentative identification of priority activities in the frame of National Strategy pillars

Strategy pillars		**Translation into orientations or activities in Xieng Khouang**
1	Development of the production (surfaces and productivity)	- Multiplication of planting material, particularly through promotion of village /producers' level nurseries - Advanced technical training (decentralized approach): from the seed to the parchment, plant protection, plantation maintenance, quality requirements - Land resource management: plots selection and monitoring in transition management - Plots preparation or arrangement following coffee agroforest guidelines - Strengthen technical and operational capacities of extension services - Assessment of relevance and feasibility to develop a *Northern coffee research and training center*
2	Improvement of the quality	- Advanced technical training (see above + processing techniques) - Identification of possible quality standards at districts level - Improvement of technical monitoring and coordination, including setting up of quality control mechanisms - Promote organic coffee production - Build a pilot wet processing facility to be used (also) as a training center

3	Promotion of the Lao quality coffee on domestic and international markets	- Multi-stakeholders discussions on XK's coffee characteristics (after identification) - Preparation of communication and promotion material for overall provincial coffee - Participation in coffee-related meetings and to promotion events - Assess links and opportunities with tourism development in XK and Northern Laos
4	Securing producers' land rights, zoning and land use planning	- Advocacy and promotion coffee sector in provincial economic development - Organization of surveillance for investments in the province (mining, hydropower, major mono-cropping projects) - Definition and securing coffee production (and extension) areas at village level and inform farmers on legal recourses / bodies in charge
5	Improvement of business environment for competitiveness and reduction of costs	- Setup a set of rules and principles for coffee commercial exchanges and practices *(code)* - Develop provincial regulation to prevent abuse of dominant market position, to avoid monopoly situation, and to maintain conditions for fair competition - Involve technical agencies to review buy-in contracts and contract farming and to conduct informative sessions for coffee farmers - Development and dissemination of market information tools - Create and facilitate an economic stakeholders' network or forum to improve communication, coordination and prepare future multiplication of private sector partners
6	Strengthening institutions and organizations capacities	- Initiation of a consultation process to develop XK's provincial coffee sector development framework - Identification of roles of responsibilities in provincial coffee sector governance, mobilization and allocation to entitled agencies or organizations - Definition and organization of capacity building programs for departments in charge and extension workers - Monitoring of FOs development, particularly around concrete activities (processing and selling), elaboration of status and TOR, financial mechanisms setup, technical coordination - Organization of peer-to-peer learning exchanges, targeting particularly remote communities

Toward coherence of coffee development actions in Northern provinces

In view of the current and coming initiatives in coffee sector development in Northern Laos, and considering the challenges faced by the implementation of the national strategy (e.g. application of common framework on the Bolavens, or operational setup of the CNCL), such *coffee-virgin* regions offer the opportunity to gather dynamics aiming common goals at two levels:

- A *discussion platform* gathering donors and agencies involved in coffee projects whose central purpose would be to coordinate interventions in line with the LCSDS, and thereby contributes to CNCL's strengthening.
  - Possible participants: SDC, AFD, UNODC, Helvetas, ACIAR, World Renew, etc.
- A *technical working group* sharing experiences and information on integration of coffee in existing farming systems, as an alternative to fast erosion of natural resources and socio-economic threats faced by communities living in mountainous areas. In particular, knowledge on agro-forest models would be merged to define applicable options according to different areas.
  - Possible participants: CIRAD, GRET, agro-ecology networks, etc.

The present work on the definition of a provincial framework for coffee development is a pilot initiative, which could feed similar enterprises in new coffee growing regions of Laos, through continuous assessment of progress, and identification of bottlenecks and drivers proper or common to target areas.

3. Tentative roadmap to drive coffee sector development in the Province

Priority actions summarized in §2.2 are suggested to act as lever to begin the construction of the overall provincial framework, the decision on their choice and ranking coming under the consultation of entitled stakeholders. We suggest more details for these three components in this last chapter.

3.1. Reinforcement of farmers' organizations

Given relative advancement of Keoseth's coffee farmers group, we make the assumption to set a pilot project with the double objective to accelerate group development and to build a demonstration or *practical teaching* place for coffee producers in the province.

The development of coffee FOs would be articulated around three aspects:

a) Reinforcement of technical capacity *(in partnership with DAFOs)*
   - Selection of village trainers (who will become supervisors) for planting, maintenance, protection and processing (see report 1, annex 9)
   - Designation of technical supervisors and constitution of FO's technical team
   - Development of monitoring forms, technical calendars
   - Assessment of current planted areas, actions to be taken
   - Construction of village or family groups nurseries
   - Identification of extension areas, plot preparation works
   - FO's production database (surfaces sorted by age of planting, production planning, harvests records, etc.)

b) Improvement of organization and ownership
   - Plenary discussions on different FO's options, unanimous selection of status (process)
   - Facilitation of workshops to define vision and goals of the FO, organizational principles and structure, election of representatives
   - Training on financial management options turned toward sustainability
   - Development of TORs for each FO's team or committee (direction, technical, marketing, administration and finance)
   - Development of work plans and monitoring tools

c) Commercial empowerment
   - Training on quality and post-harvest management, pricing, commercial bargaining
   - Training on wet processing centre management
   - Definition of rules and running principles of the centre, selection of facility manager and staff
   - Planning of supply (deliveries) and processing, according to the capacity of the centre
   - Storage management (coffee parchments)
   - Planning and organization of sales
   - Marketing and promotion

The construction of a wet processing centre in Keoseth is seen as a prior requirement to physically organize the development of the FO. Owned and managed by the farmers, this central point would also represent a meeting point (an office and training room would be a plus) and ease quality control aspects, payment of members, storage and convenience for the buyer, among others.

3.2. Improvement and regulation of economic environment

In order to anticipate emergence or arrival of private sector actors caused by development of coffee products, a provincial frame would be elaborated to set good conditions or regulate business practices. Related support to create such environment focus on two central areas:

a) Elaboration of a provincial coffee business chart
   - Capacity building of PICO and PPI in terms of business registration, regulation and control
   - Multi-stakeholders consultation process to outline levers and issues (for each category) that must be developed or framed in coffee economic activities
   - Selection of measures to arrange viable business conditions for all coffee sector actors, focusing on farmers and stakeholders involved in the supply chain, and commercial partners.
   - Elaboration and endorsement of a provincial chart listing orientations and regulation of coffee-related economic activities
   - Constitution of a specific commission in charge of economic affairs (under the coffee sector management body) with consultative, control and regulation roles
   - Development of this commission's TOR and work plans

b) Development of XK's coffee business forum *(in partnership with LCCI)*
   - Assessment of different options to create a discussion space gathering economic stakeholders (consultation)
   - Definition of roles and activities of the forum, targets and expected outcomes, possibly own budget for running costs and communication material

3.3. Building a sector governance body

As XK's coffee development framework is not additional but embedded to the LCSDS, the sector management body would not be an entity distinct of the CNCL (or Lao Coffee Board) but a *decentralized* version of the national institution. No final structure, composition or organization chart has been officially decided yet for the CNCL, probably because of the complexity to gather high-ranked leaders and because of the remaining gaps between political and implementation levels. At provincial scale, a simplified version of the CNCL could take shape around practical issues related to production and commerce, the priority being to setup an executive level able to steer or advice stakeholders, and to facilitate responses to their specific issues.

Building such governance body *(or committee)* will come along with the development of the sector, but favourable conditions can be suggested beforehand, like:

a) Mobilization of relevant agencies and stakeholders representatives, under the aegis of the provincial authority

b) Review and ownership of previous works on CNCL building, focusing on executive level applicable at provincial scale

c) Chairing and co-elaboration of the provincial coffee sector development framework (see §3.4)

Consultation and endorsement of central authorities, above requirements, are good opportunities to get advice from previous experience as well as institutional support. Representative of relevant ministries would be actively involved in the framework development process.

3.4. Launching a participative process to develop the implementation framework and governance management

Experience of LCSDS development method will be useful here, in an improved and adapted version to XK situation. While a national strategy is available and a smaller number of stakeholders would ease the process, knowledge and experience level of actors to be mobilized are prior challenges to ensure ownership and suitability of the provincial development framework.

Stakeholders to be associated are mentioned in the table of §2.3, and suggested steps of this consultative process are as following:

a) Inception workshop
   - Introduction of coffee sector situation in Xieng Khouang including potential and challenges
   - Suggested priority interventions
   - Suggested roles and responsibilities for stakeholders organization and government agencies
   - Mixed groups work on development goals, activities and sector management

b) Consolidation of outcomes
   - Drat development *program*
   - Tentative governance structure

c) Decentralized workshops (per stakeholders category)
   - Specification of activities, feasibility assessment
   - Additional inputs and recommendations
   - Tentative schedules for further implementations

d) Draft coffee strategy implementation framework
   - Integration of recent inputs from each category of stakeholders
   - Tentative action plan and schedule
   - Agreed structure of coffee development provincial *committee* (including funding options)

e) Endorsement workshop
   - Presentation of updated version of framework/action plan (by stakeholders' representatives)
   - Identified executive unit and funding scheme
   - Agenda for further meetings according to the roadmap

f) Finalization
   - Consolidation in one document
   - Legal works and official validation
   - Edition

g) Dissemination
   - Introduction to stakeholders and further clarifications

By organizing the process into different levels of consultation, it is intended to involve stakeholders since early stages of further development in order to set ownership but also a dialog among them (in view of basing a *sector spirit* in the future), and pay attention to relevance and realistic actions to be taken. Furthermore, a clear and shared vision of the sector is crucial.

Launching this process before next campaign would be relevant, as all actors would have to possibility to discuss practical aspects of production and commerce. At least, some main goals or orientations could be introduced before getting more into activities and responsibilities details (and before reduced availability of farmers, for instance).

Conclusions

Xieng Khouang presents relevant potential to become an implementation field of the national strategy for coffee sector development. Production and farmers' organization show more *advanced* level among Northern provinces, on condition that we consider quality, sustainability, and role to be played by smallholders in sector development. Nevertheless, potential is not equally distributed in all districts, as well as coffee production would contribute differently to local economy or environment according to farming systems and status of natural resources.

The *infant* stage of coffee sector offers advantages, as all can be built on good basis starting on simplified volumes of production and exchanges between stakeholders, but risks at the same time, due to the lack of regulation and the open door for any good or bad practice. Aware of such risks, farmers are starting to shape organization models sometimes directly consecutive to practical issues they face; initiatives full of promises but that need to be supported and guided toward sustainability and empowerment.
Besides, implication of relevant technical authorities remains irregular, mostly turned toward production aspects. Separation of responsibilities intra and inter-offices does not allow any consideration of the overall value chain so far, which represents a priority intervention – joint with capacity building – before proceeding to further coffee sector development activities.

Implementing the LCSDS in Xieng Khouang requires a translation into more practical framework than orientations mentioned in the official document. The situation, then the priorities are different that in Southern Laos provinces, but overall goals and pillars make sense in such dawning sector. The main difference takes place in mountainous areas, where upland issues are much marked and where accessibility and growing conditions are more challenging than in plain areas or upper valleys.
Timing is also relevant to start working on a provincial strategy implementation framework, as more or less recent coffee-related actions initiated knowledge and first visible outcomes to farmers and other interested actors. It is now time to gather and organize dialog of such stakeholders around practical aspects of coffee sector development in the province, based on each one's specific interest or issue. The national strategy provides a general frame; priority interventions and governance model still have to be defined. To do so, it is crucial to give the floor to stakeholders themselves to ensure ownership and relevance of orientation choices or coming realizations.

Annexes

Annex 1: Field observations and recommendations
Annex 2: Estimated budget for the construction of a wet processing centre in Keoseth
Annex 3: Suggested structure and organization for the CNCL

Annex 1: Field observations and recommendations

Spontaneous home made nurseries show interest of farmers connected to the market (Café Meuang Xieng mainly) and demonstrate possible cheaper options than project-supported nurseries

Some other producers received seedlings and little technical support in the frame of coffee promotion activities (development projects, Chinese company), but without market identification or access facilitation. This often led farmers to cut down coffee trees with sometimes last harvest and hand process. Parchment is kept with the remaining hope to meet a buyer.


Café Meuang Xieng is developing nursery and first processing station in Phonsavanh that started on simple basis, but will be improved according to the progress volume of production/company activities. Some alternative Arabica varieties are introduced with good growing so far.

Coffee is also grow in home gardens among other vegetable and fruits (top picture), in intermediate levels before slopes arranged in mosaics of mono-crops: rice, forage, maize (as animal feed) and here peanuts which is an available culture to improve coffee plantation soil covering (left and below pictures)

While older forest cover present good conditions to introduce coffee, maintenance has to be improved and implement more regularly to reduce competition of weeds and pests risks. Whether fertility resource is better than in mountainous districts (Nonghet), it has to be managed and improved to sustain the

Good example of plot arrangement for coffee (intermediate level between slope "mosaics" and forest, in U shape upper valleys. Older fallows are cleaned while shade trees are kept, with additional planting of fruits trees or medicinal plants. A better soil cover would even improve this model

Upper valleys in plain districts (Pek, Phaxay, Khoun) offer generally better conditions for the introduction of a new crop with low impacts on landscapes and natural resources (compared to Nonghet).
Topography and accessibility are other assets, which decrease labor

Annex 2: Estimated budget for the construction of a wet processing centre in Keoseth (that would also be used as a practical learning facility)

For 1 ha of coffee plantation

Rate 8,000

No	Activity	Unit	Quantity	Unitprice	Amount (kips)	Amount (Usd)	Remark
1	**Processing house / store**						
1	Wood house/ store (4 m x 9 m) and ground in concrete	House	1			-	
2	Wood (different types)	Piece			2,500,000	313	Farmers group
3	Zinc sheet	Sheet	100	30,000	3,000,000	375	
4	Nail	Kg	5	15,000	75,000	9	
5	Ciment	Ton	2	850,000	1,700,000	213	
6	Sand	Ton	3		450,000	56	
7	Gravel	Ton	5		800,000	100	
8	Labor	Pers.	1		0	0	Farmers group
	Sub-total				***8,525,000***	***1,066***	
2	**Machinery and relative accessories**						
1	Pulping Machine (Vietnam)	Set	1	3,500,000	3,500,000	438	Price in Paksong
2	Capacity: 1,5t cherry /hour						
3	Dynamo : 1,1 Kw						
4	Materials (plastic baskets, tanks….)	Piece	1		700,000	88	
5	Scale 100 kg	Scale	1		500,000	63	
6	Moister meter	Piece	1		4,800,000	600	600 usd
	Sub-total				***9,500,000***	***1,188***	
C3	**Materials for coffee drying**						
1	Structure of wood (high from ground)	M2	50	-	-	-	Farmers group
2	Plastic net	M2	50	-	500,000	63	
3	Tarpaulin	M2	50		500,000	63	
3	Nails	Kg	10	15,000	150,000	19	
	Sub-total				***1,150,000***	***144***	
	Grand Total				**19,175,000**	**2,397**	

Annex 3: Suggested structure and organization for the CNCL