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Investing in rural people

Lao People's Democratic Republic

Northern Region Sustainable Livelihoods
through Livestock Development Project

Asian Development Bank-IFAD Joint Project
Performance Evaluation

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Executive summary

1. Introduction. This joint project performance evaluation (PPE) of the Northern Region Sustainable Livelihoods through Livestock Development Project (NRSLLDP) is the first evaluation conducted jointly by the Independent Evaluation Department (IED) of the Asian Development Bank (ADB) and the Independent Office of Evaluation of IFAD (IOE).
2. This joint initiative resulted in mutual capacity-building and learning among IOE, IED and in-country partners. IOE and IED learned from each other by sharing their experiences in conducting evaluations along with their methodologies and approaches. The joint evaluation also enabled the participation of national authorities through evaluation capacity development activities in the Lao People's Democratic Republic, which were organized and implemented by IOE and IED. Both IOE and IED acknowledge the usefulness of this joint exercise and concur that its learning component outweighs the challenges of implementation.
3. Objectives. The main objectives of the joint PPE were to: (i) assess the results of the project; and (ii) generate findings and recommendations for designing future projects and implementing ongoing operations in the country. In addition, the evaluation had a strong evaluation capacity development component.
4. Methodology. The joint PPE was undertaken in line with IFAD's Evaluation Policy, the second edition of the IFAD Evaluation Manual (2015) and ADB's Guidelines for the Evaluation of Public Sector Operations (2016). Since IOE's evaluation methodology is tailored to assessing integrated rural development projects, it was used to provide the core evaluation approach and report structure. IED guidelines were integrated into IOE's general approach.
5. Rating system. IOE assesses projects using a six-point rating system in which 6 is the highest score (highly satisfactory) and 1 is the lowest (highly unsatisfactory). ADB uses a four-point rating scale in which 3 is the highest score (highly successful) and 0 is the lowest (unsuccessful). In addition to a combined assessment, the joint PPE generated two separate rating tables so that assessments could be integrated into both organizations' evaluation databases.

Assessment of project performance

6. The relevance of the project was assessed as moderately satisfactory (4) by IOE and as relevant (2) by IED. The project was aligned with government priorities and the country strategies of both ADB and IFAD. It was timely in its support for livestock development since it coincided with a significant increase in demand for animal products. At the same time, it supported community-driven development and the Government's decentralization efforts. However, the project's design was over-ambitious, which made achievement of the project's objectives challenging.
7. The design underestimated farmers' limited technical abilities, weak institutional capacity in the implementation area and the amount of inputs and effort needed to ensure sustainability. During implementation, the marketing component was dropped and performance targets were scaled down. While the community-driven development elements may have had the most potential for benefitting poorer beneficiaries, the country's economic growth and increasing demand for livestock shifted the emphasis towards commercialized livestock development in the follow-up project.
8. Effectiveness. The project's effectiveness was assessed as moderately unsatisfactory (3) or less than effective. NRSLLDP was successful in achieving outputs directly linked to livestock development, such as vaccinations to improve animal health and micro-credit to purchase animals. However, the project was weak on achieving intermediate outcomes that required learning and behaviour

change. As a result, the uptake of new practices and the establishment of viable livestock production groups (LPGs) and village livelihood funds were limited.

9. The design of the microfinance component was flawed and not aligned with beneficiaries' needs for livestock development. Specifically, interest rates were too high, the ceiling on loan amounts too low and loan maturities too short. Moreover, the microfinance mechanism did not allow for farmers with good repayment records to access more loans, preventing farmers from purchasing additional livestock. In addition, the village livelihood model for supporting community-driven development, implemented through the formation of LPGs, was not fully appreciated or adhered to during implementation; this compromised timely repayment of loans. Finally, the project did not manage to reach the poorest households within the targeted districts.
10. With regard to efficiency, the project was assessed as moderately satisfactory (4) by IOE and efficient by IED. The financiers disbursed 94.7 per cent of all funds allocated to the project. According to the project completion report, the economic internal rate of return was 15.7 per cent, exceeding the cut-off rate of 12 per cent. The project completion report's economic re-evaluation underscored that the prices of livestock – especially cattle and pigs – were the key determinants of the livestock investments' profitability. Both the economic internal rate of return and financial internal rate of return were broadly in line with estimates made at the time of project design. Despite extending the implementation period by 19 months in the case of ADB, and 14 months in the case of IFAD, the effective implementation period remained shorter than envisaged at appraisal due to the start-up delays.
11. IOE rated rural poverty impact as moderately satisfactory (4). This is an IOE-specific criterion; IED concurs with the assessment, but did not provide a rating. The evaluation acknowledges the project's contribution to establishing a foundation for a smallholder-led livestock sector. The project also illustrated the country's comparative advantage and potential for developing the livestock sector. If this potential is tapped into, project beneficiaries will have the opportunity to be part of this growth in the near future.
12. Interviews about implementation revealed that beneficiary households attribute their improvements in household income to an increase in the number of animals. This increase is not only due to the provision of animals but also to the project's introduction of enhanced livestock management practices, which added value to existing livestock and enhanced the potential for increasing household income. Furthermore, project beneficiaries reported a substantive decline in animal diseases and mortality compared to 10 years ago, along with an increase in meat demand and prices. Along the same lines, the evaluation noted moderate impacts on human and social capital, empowerment and capacity-building of local institutions established in the context of decentralization.
13. However, the evaluation also identified several constraints to greater impact. First, the livestock management, microfinance and community mobilization activities promoted by the project were not implemented in a complementary manner and were not equally aimed at advancing the livestock systems. Second, the flaws in the design of the microfinance component led to high default rates, which were close to 50 per cent in a few villages visited. Third, linkages with the formal financial sector and private sector (through traders) along the livestock value chain were not supported.
14. The sustained development of the livestock sector and its transition from a subsistence model to community farms and eventually to commercial farming is a long-term process, which requires substantial changes in the production, marketing, sales and reinvestment cycle. This in turn entails more regular and

extensive training, and the empowerment of smallholder farmers; this was not provided by the extension service offered through the project.

15. Although women and ethnic minorities with capacity gaps were identified for training, language barriers and a limited number of follow-up training sessions constrained the uptake of new practices. Project benefits largely accrued to better-off farmers and those with prior livestock experience. The LPGs lacked a long-term vision: they are still largely seen as vehicles to access rural credit and acquire skills rather than as a means to create strong bonds within communities, share knowledge and instil ownership of project outputs. Finally, limitations in data quality and availability made it challenging to measure the project's impact on rural poverty.
16. Sustainability of project benefits. Vaccination ensures the viability of livestock – an important aspect of the project. However supplies, veterinary services and a cold chain need to be provided in order for the vaccinations to be sustainable. The project did not make any progress towards these medium- and long-term requirements. In addition, microfinance and a credit regime for rural finance need to be developed so that households willing to work on livestock development are not constrained by a lack of financial resources. This requires a clear understanding among national policy makers, those in the banking sector and civil society organizations like the Lao Women's Union.
17. There is a need to bring project related technology, finance and organizational issues together within a market framework. The fact that the project's marketing component could not be implemented and was dropped at mid-term left a gap in the understanding of market linkages related to livestock development.
18. Finally, it would be difficult to scale up and sustain livestock development in Lao People's Democratic Republic without paying attention to the environmental sustainability of the agro-ecological areas. Households' capability to advance livestock development was closely linked to the sustainable use of natural resources (including terrain, cultivable land for forage and year-round water supply), and availability of labour. Without attention to these critical issues, it is difficult to scale up and benefit from livestock development. IOE rated sustainability of benefits as moderately unsatisfactory (3); IED rated it as less than fully sustainable.

Other performance criteria

19. Innovation was assessed by IOE as moderately unsatisfactory (3); IED concurred with this assessment but does not rate this criterion. Several relevant production and livestock management technologies were introduced at the design stage, including vaccination, penning of livestock, feed preparation and animal health care. These practices had varying degrees of success, with vaccinations being particularly successful.
20. However, the project design did not clearly map the transition pathways for these technologies to describe their expansion by quantity or time. While the project's approach to moving beyond the subsistence towards more intensive livestock production was not fully realized, it offered insights into how to expand production, starting with the introduction of good practices and low-cost inputs.
21. The project's scaling-up efforts were moderately satisfactory (4). The Government, IFAD and ADB recognized the potential for livestock development and made it a priority – particularly the Government. Building on NRSLDP, ADB has approved the follow-up Northern Smallholder Livestock Commercialization Project (NSLCP), which focuses on livestock development and commercialization. IFAD is directly financing the credit component of this new project's Rural Financial Services Programme. In addition to strengthening livestock production, the new project focuses on the livestock value chain and the involvement of private-sector actors.

22. Gender equality and women's empowerment. NRSLLDP included a Gender Action Plan, which set targets to ensure equitable involvement of women in training, community groups and livestock ownership. This plan was implemented successfully and the project triggered a change in women's participation that had positive impacts on the lives of women in the project area. However, some targets were not fully achieved. Women still have to walk a significant distance to fetch water and the time they devote to animal care actually rose in households in which commercial livestock rearing was a major source of income. Overall, IOE rated gender equality and women's empowerment as moderately satisfactory (4). IED concurred with this assessment.
23. In the area of environment and natural resources management, the project design included an environmental management plan to mitigate any potential negative environmental impacts. However, there was no active monitoring or recording of environmental impacts, or environmental safeguard compliance at the district or village levels. That said, no major negative environmental impacts were reported during project implementation. There were notable improvements in villages, including in village hygiene and soil conditions, and a reduction in the use of slash-and-burn practices and chemicals. However, there are still some biosecurity concerns, especially in the poultry sector. IOE rated environment and natural resource management as moderately satisfactory (4).
24. Overall, the IFAD/ADB partnership was beneficial: it added value to the project and was highly appreciated by the Government. The strength of the partnership was driven by the two organizations' complementarity: ADB has a comparative advantage in rural infrastructure while IFAD's advantages are in agriculture, rural and community-based development. There is still room to improve coordination between the two institutions and the Government, with a view towards the implementation of a long-term strategy for development of the livestock sector.
25. Lessons. The evaluation highlighted the following lessons to inform the follow-up project:
 - The transition to commercial agriculture implies extensive training and empowerment of smallholder farmers.
 - LPGs can be conduits for sharing experiences, exchanging knowledge and gaining access to inputs and market opportunities. However, they need to be developed and empowered to engage with a range of stakeholders across the value chain.
 - Tailored financial instruments and sustainable access to savings and credit are essential inputs. A key milestone for IFAD, ADB and the Government will be their agreement on the most appropriate partner (for example the Bank of Lao) to implement the rural finance component transparently and professionally.
 - Smallholder farmers' move towards commercialization requires tailored infrastructure to address impediments such as a lack of access to water, animal shelter, medicinal supplies, a cold chain, roads and markets.
26. Recommendations. In view of the follow-up project and based on key findings, the PPE proposes the following recommendations:
27. Recommendation 1: A more explicit and tailored targeting approach is required to support commercialization and the sustainable development of the livestock sector. The heterogeneity of the target group and the agro-ecological diversity in the NRSLLDP meant that many farmers, particularly from the poorest ethnic groups, were unable or did not have an interest in significantly increasing their livestock production. Therefore, the new project should develop a targeting strategy to guarantee that the poorest benefit from project activities

towards the transition to livestock commercialization. This could be done, for example, by ensuring the inclusion of activities related to poultry and small animals.

28. Recommendation 2: Moving towards commercialization entails the tailoring of activities to the context and needs of the poor who have the potential to scale up livestock development. In particular:
 - (i) IFAD should design appropriate financing instruments for livelihoods in terms of duration, amount, savings options and clear repayment and collateral requirements, to orient the investments in the sector and support access to markets;
 - (ii) ADB should support the establishment of market-oriented rural infrastructure to effectively access sectoral inputs and markets; and
 - (iii) Similar projects must start with training for good practices in nutrition, confinement, and animal health; such training paves the way for more sophisticated practices related to breeding, commercial inputs, and improved efficiency and marketing.
29. Recommendation 3: IFAD, ADB and the Government should plan for sustained partnership and support of the Government's sector development strategy. Given the limited development of the sector, progress made to date and general weak capacity, the elaboration and implementation of a longer-term strategy agreed by key partners is essential for sustained benefits and real scaling-up of results by other development partners, the private sector and the Government itself. A phased approach should already be considered, including using complementary instruments and partners to assist with policy, regulatory and institutional requirements. The establishment of partnerships with private-sector actors should be established to boost the linkages with producer groups and ensure that smallholders access additional knowledge, cheaper inputs and better prices.
30. Recommendation 4: IED and IOE should continue to conduct joint evaluations whenever possible. Both IOE and IED acknowledge and concur on the usefulness of conducting joint evaluations and the fact that the learning component attached to this type of exercise outweighs the challenges of conducting it. In order to maximize the learning and knowledge-sharing benefits, future joint evaluations at the project level should continue to be conducted in conjunction with in-country evaluation capacity development activities. Moreover, IOE and IED should explore opportunities for the joint implementation of higher-level evaluations such as synthesis reports by IOE or sector evaluation reports by IED. If a joint exercise is not deemed possible, opportunities for mutual interaction and knowledge-sharing should be explored whenever appropriate through specific inputs and/or peer review of evaluation approach papers and final reports.

IFAD Management's response¹

1. IFAD Management appreciates the outcomes of the first joint evaluation of Independent Evaluation Department (IED) of the Asian Development Bank (ADB) and IFAD's Independent Office of Evaluation (IOE). Management welcomes the project performance evaluation (PPE) of the Northern Region Sustainable Livelihoods through Livestock Development Project (NRSLLDP) in Lao People's Democratic Republic and appreciates the high quality of the report.
2. Management recognizes the PPE's positive contributions to the country programme in terms of lessons learned and recommendations for future country strategic opportunities programmes (COSOPs) and related agricultural development activities. The PPE confirms the project's relevance while flagging its limited effectiveness and sustainability. The underlying causes and lessons learned have been highlighted. These include an over-ambitious design, which did not take into account the weak institutional context, and a gender and targeting approach that was not underpinned by tailored implementation support. The PPE also noted the project's modest efficiency, mainly due to high delivery costs, start-up delays and the disbursement of 94 per cent of project funds. It is pleasing to note the added value of the IFAD-ADB partnership for project design and supervision while acknowledging the need for IFAD to provide greater support to improve the project's targeting approach and bring its knowledge to the field.
3. Management is also pleased to note that both IOE and IED confirmed the value of the overall IFAD-ADB strategy of shifting agriculture towards a commercial orientation. IFAD's recent investments have demonstrated similar lessons and their design has been adjusted accordingly, as in the case of the Southern Laos Food and Nutrition Security and Market Linkages Programme, the Agriculture for Nutrition Project and the Northern Smallholder Livestock Commercialization Project (NSLCP). The next COSOP will focus on promoting value chain development in the coming years.
4. The evaluation's assessment of the performance of IFAD, ADB and the Government serves as a reminder to strengthen their engagement during project implementation. All partners need to ensure that the project design is fully aligned with the limited institutional capacities at the local level. Adequate resources should be provided to strengthen capacities from the local to the national levels in support of the evolving decentralization process.
5. Management appreciates the PPE recommendations and wishes to respond to each recommendation:
 - (a) Recommendation 1: A more explicit and tailored targeting approach is required to support commercialization and the sustainable development of the livestock sector. The heterogeneity of the target group and the agro-ecological diversity within the project area mean that many farmers – particularly the poorest – were uninterested or unable to significantly increase their livestock production. The follow-up project should develop a targeting strategy to guarantee that the poorest farmers benefit from project activities.

Response from Management: Agreed. As demonstrated in ongoing projects, a decentralized implementation mechanism offers opportunities to adjust project design to the needs of different sub-groups. A participatory methodology and tools like village development funds offer entry points for target groups to establish and implement their own development plans.

¹ The final Management response was sent from the Programme Management Department to the Independent Office of Evaluation of IFAD on 23 March 2018.

Village development funds and their implementation through a community-driven development approach have shown promising results in recent projects. In addition, Management will focus on an explicit and tailored targeting approach for new projects and the COSOP. Management will ensure that the poorest people are included and that activities relevant to all target groups are captured in the design.

- (b) Recommendation 2: Moving towards commercialization entails the tailoring of activities to the context and needs of the poor with potential to scale up livestock development, in particular:
- (i) IFAD should design appropriate financing instruments for livestock-based livelihoods in terms of their duration, amount, savings options and repayment and collateral requirements in order to focus investments in the sector and support access to markets.
 - (ii) ADB should support the establishment of market-oriented rural infrastructure in order to access sectoral inputs and markets.
 - (iii) Training on good practices related to nutrition, confinement and animal health should be provided to consolidate results before moving to more sophisticated practices related to breeding, commercial inputs, intensification and improved efficiency and marketing.

Response from Management: Agreed. These recommendations address basic technical aspects of livestock development, which have been integrated into the follow-up project NSLCP. In terms of rural finance, the IFAD-funded NSLCP Rural Financial Services Programme has introduced the village bank and network support organization as a proven microfinance approach. This approach has gained a proven track record in recent years with support from the German Agency for International Cooperation (GIZ). In fact, IFAD aims to partner with GIZ through NSLCP to scale up this microfinance approach. In addition, NSLCP is supporting the dissemination of good practices through training in animal husbandry, forage development and improved veterinary services.

- (c) Recommendation 3: IFAD, ADB and the Government should plan for a sustained partnership and support of the Government's sector development strategy. Given the limited development of the livestock sector, lack of progress made to date and weak institutional capacity, a long-term strategy agreed upon by all partners is essential for generating sustained benefits and scaling up the results of other development partners, the private sector and the Government. A phased approach should be considered, including complementary instruments and partners to assist with policy, regulatory and institutional requirements. This approach requires the establishment of partnerships with private-sector actors to strengthen linkages with producer groups and ensure that smallholders have access to additional knowledge, cheaper inputs and better prices.

Response from Management: Agreed. IFAD is in the process of updating the current COSOP in consultation with the Government and development partners. ADB has played a strategic role throughout its history of joint investments with IFAD. Projects such as NRSLLDP have demonstrated partners' complementarity as well as the comparative advantages of each partner for infrastructure (ADB), targeting, institutional capacity and inclusive value chain development (IFAD). Moreover, it has been noted that the agriculture sector in Lao People's Democratic Republic has become more dynamic in recent years. The Government has succeeded in greater integration of the economy through trade and infrastructure. The construction of a trans-national railway line that connects Lao People's Democratic

Republic to its neighbours is just one example. The next COSOP and joint programme will fully reflect the ambitions of both ADB and IFAD to integrate smallholder farmers into national and international markets. IFAD's non-lending activities should play a prominent role in upholding its commitment to strengthen policy and institutional capacity.

- (d) Recommendation 4: IED and IOE should continue to conduct joint evaluations whenever possible. Both IOE and IED acknowledge the usefulness of conducting joint evaluations and concur that the lessons learned from this exercise outweigh the challenges of conducting it. In order to maximize the benefits of learning and knowledge sharing, future joint project-level evaluations will continue to be conducted in conjunction with in-country evaluation capacity development activities. IOE and IED should also explore opportunities for jointly implementing high-level evaluations such as IOE synthesis reports and IED sector evaluations. If a joint exercise is not deemed possible, other opportunities for mutual interaction and knowledge sharing will be explored whenever possible. These may include targeted inputs and peer review of evaluation approach papers and final reports.

Response from Management: Agreed. Management is pleased to support joint evaluations of cofunded projects for joint learning in future investment initiatives.

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Currency equivalent

Currency unit = Laos Kip (LAK)

US\$1.00 = LAK 8,199 (February 2017)

Abbreviations and acronyms

ADB	Asian Development Bank
CDD	community-driven development
COSOP	country strategic opportunities programme
CPM	country programme manager
DAFO	district agriculture and forestry office
DLF	Department of Livestock and Fisheries
ECD	evaluation capacity development
EIRR	economic internal rate of return
EMP	environmental management plan
FGD	focus group discussion
FIRR	financial internal rate of return
GAP	gender action plan
GIZ	German Agency for International Cooperation
IED	Independent Evaluation Department of the Asian Development Bank
IOE	Independent Office of Evaluation of IFAD
JFPR	Japan Fund for Poverty Reduction
LPG	livestock production group
Lao PDR	Lao People's Democratic Republic
LWU	Lao Women Union
M&E	monitoring and evaluation
MAF	Ministry of Agriculture and Forestry
MTR	mid-term review
NGPES	National Growth and Poverty Eradication Strategy
NRSLLDP	Northern Region Sustainable Livelihoods through Livestock Development Project
NSLCP-RFSP	Northern Smallholder Livestock Commercialization Project-Rural Financial Services Programme
IED	Independent Evaluation Department of ADB
IOE	Independent Office of Evaluation of IFAD
PAFO	provincial agriculture and forestry office
PCR	project completion report
PSC	Project Steering Committee
PIO	provincial implementation office
PPE	project performance evaluation
RIMS	Results and Impact Management System (IFAD)
SDC	Swiss Agency for Development and Cooperation
ToC	theory of change
VIDF	village infrastructure development fund
VLF	village livelihood fund

Map of the project area

Lao People's Democratic Republic

Northern Region Sustainable Livelihoods through Livestock Development Project

Project Performance Evaluation



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 03-10-2018

Lao People's Democratic Republic Northern Region Sustainable Livelihoods through Livestock Development Project IED-IOE Joint Project Performance Evaluation

I. Introduction

1. This Project Performance Evaluation (PPE)¹ of the Northern Region Sustainable Livelihoods Through Livestock Development Project (NRSLLDP) of the Lao People's Democratic Republic (Lao PDR) is the first joint evaluation conducted by the Independent Office of Evaluation of the International Fund for Agricultural Development (IOE)² and the Independent Evaluation Department (IED) of the Asian Development Bank (ADB).
2. Rationale for the selection of the project. The NRSLLDP has been selected for a joint-PPE as the project was jointly financed by IFAD and ADB, along with the Swiss Agency for Development and Cooperation (SDC). Also, the project's substantive features have special importance for the rural poor, as these are related to the core activities of cultivation, farming and livestock production, and are critical for the livelihood of ethnic groups and women in the country and more broadly in the Asia-Pacific region.
3. Moreover, the project fulfils the criteria for the selection of PPEs enshrined in IOE's selectivity framework, such as: (i) availability of a project completion report (PCR); (ii) can provide valuable lessons for other ongoing and planned evaluation products;³ (iii) contains innovative approaches that merit deeper analysis; and (iv) the PCR contains some inconsistencies and information gaps which also merit further documentation.
4. Advantages of a joint evaluation. Both IOE and IED recognize the merits of undertaking joint evaluations, which have the potential to bring strong benefits to all partners and stakeholders. They offer opportunities to harmonize and align the overall processes of evaluation, to share the burden of work involved, to increase accountability and the acceptance and legitimacy of findings and recommendations, and to reduce the overall number of evaluations undertaken, thereby reducing transaction costs and administrative demands on aid recipient countries. IOE and IED pursued a high level of "jointness" for this PPE. This included a joint preparation process leading to a single evaluation approach paper, mission and report.
5. This joint evaluation is also important for mutual capacity-building and learning among IOE, IED and in-country partners. IOE and IED learned from each other by sharing their experience in conducting evaluations and respective methodologies and approaches. In this regard, there was a high level of complementarity in the conduct of the evaluation deriving from the strengths and respective comparative advantages (e.g. IFAD on rural development and ADB on infrastructure) that the two institutions bring to the agriculture and rural sector in Asia-Pacific.
6. Moreover, the joint evaluation enabled the participation of national authorities throughout the process. In this regard, the evaluation was linked to

¹ Known as PPE in IFAD and Project Performance Evaluation Report (PPER) in ADB.

² The Independent Office of Evaluation (IOE) selection criteria for Project Performance Evaluation (PPE) include: (i) information gaps in project completion reports (PCRs); (ii) projects of strategic relevance that offer enhanced opportunities for learning; (iii) a need to build evidence for forthcoming corporate-level evaluations, country strategy and programme evaluations, or evaluation synthesis reports; and (iv) a regional balance of IOE's evaluation programme. IED prepares PPERs on a selective basis.

³ For example, the forthcoming corporate-level evaluation on value chains (2018).

evaluation capacity development (ECD) activities in Lao PDR jointly organized and implemented by IOE and IED. The ECD activities comprised training on ex-post project evaluation, which took place in Luang Prabang on 20–24 February 2017. Following the training, two representatives from the Department of Evaluation of the Ministry of Planning of Laos joined the field mission as part of the ECD activities to receive a hands-on training on quantitative and qualitative data collection methods and tools and enhance their evaluation capacities. They also spent one week at ADB headquarters in Manila for training in report writing.

7. Challenges. The main challenge in conducting this evaluation is process-related. The coordination of the activities connected to the joint evaluation (and including the ECD component) was complex and required more time than planned. For example, IED and IOE had to harmonize their evaluation approaches, their different rating scales and different standards for report writing.⁴ However, both IOE and IED acknowledge and concur on the usefulness of this joint exercise and the fact that its learning component outweighs the challenges of conducting it.

⁴ This is further discussed in the methodology section.

II. Evaluation objectives, methodology and process

8. Objectives. The main objectives of the PPE are to: (i) assess the results of the project; (ii) generate findings and recommendations for designing future projects and implementing ongoing operations in the country; and (iii) identify issues of corporate, strategic or operational interest that merit further evaluative work by IFAD and ADB. In addition, the evaluation had a strong ECD component.
9. Methodology. The joint PPE exercise was undertaken in accordance with the IFAD's Evaluation Policy⁵ (the second edition of the IFAD Evaluation Manual, 2015), as well as ADB's Guidelines for the Evaluation of Public Sector Operations (April 2016).⁶ Since the IOE evaluation methodology is tailored to assessing integrated rural development projects, it was used to provide the core evaluation approach and structure of the report. IED guidelines were integrated within the general IOE approach.
10. Evaluation criteria. The joint evaluation applied the following key evaluation criteria:
 - Rural poverty impact, which is defined in the IFAD Evaluation Manual (2015) as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a result of development interventions. Four impact domains will be assessed to generate a composite indication of rural poverty impact: (i) household income and assets; (ii) human and social capital and empowerment; (iii) food security and agricultural productivity; and (iv) institutions and policies. A composite rating will be provided for the criterion of "rural poverty impact", but not for each of the impact domains.
 - Relevance of project objectives and design, and the targeting strategy adopted. In order to comply with ADB's guidelines, the relevance of design also looked at the innovative features of the project.
 - Effectiveness, which measures the extent to which the project's immediate objectives were achieved, or are expected to be achieved. The assessment was based on the analysis of the output and outcome levels of the project theory of change (ToC).
 - Efficiency, which indicates how economically resources/inputs (e.g. funds, expertise, time) are converted into results. The evaluation examined the project's economic internal rate of return (EIRR) ex-post, along with process efficiency.
 - Sustainability of benefits, which indicates the likely continuation of net benefits from a development intervention beyond the phase of external funding support. It involves an assessment of the likelihood that actual and anticipated results will be resilient to risks after project completion. Sustainability of net benefits generated by the project is assessed from technical, financial, institutional, social and environmental perspectives.
 - Gender equality and women's empowerment, which indicates the extent to which the intervention contributed to better gender equality and women's empowerment according to the objectives of relevant ADB and IFAD strategies.
 - Innovation in terms of design and approaches, which is assessed under relevance of design. Under innovation, the evaluation assessed the extent to which these innovative approaches were successfully introduced for deeper impact on rural poverty reduction.

⁵ International Fund for Agricultural Development: <http://www.ifad.org/pub/policy/oe.pdf>

⁶ IED. 2016. *Guidelines for the Evaluation of Public Sector Operations*. Manila: ADB.

- Scaling up, which assesses the extent to which the project has been (or is likely to be) scaled up by government authorities, donor organizations, the private sector and other agencies.
 - Environment and natural resources management, which assesses the extent to which the project contributes to changes in the protection, rehabilitation or depletion of natural resources and the environment. The project's medium- to long-term effects on natural resource management, pollution, biodiversity, and greenhouse gas emissions will form part of the analysis.
 - Adaptation to climate change, which assesses the contribution of the project to increased climate resilience and increased beneficiary capacity to manage short- and long-term climate risks.
 - Overall project achievement provides an overarching assessment of the intervention, drawing upon the analysis and ratings for all above-mentioned criteria. In sum, this assessment validates the results chain of the project and its legitimacy in light of the ToC. This IFAD-specific criterion corresponds to the development impact assessment of the ADB's guidelines.
 - Performance of partners, including the performance of IFAD, ADB, SDC and the Government, will be assessed on an individual basis, in accordance with the partners' expected role and responsibility in the project life cycle.
11. Rating system. IOE assesses projects using a six-point rating system, where 6 is the highest score (highly satisfactory) and 1 is the lowest score (highly unsatisfactory). On the other hand, ADB, uses a four-point rating scale, where 3 is the highest score (highly successful) and 0 is the lowest (unsuccessful). In addition to a combined substantive assessment, the joint PPE generated two separate rating tables so that assessments could be integrated with the respective evaluation databases of both organizations. Table 1 provides an overview of the criteria adopted and rated by IOE and IED.

Table 1
Evaluation criteria rated by IOE and IED

<i>Evaluation criteria</i>	<i>Rating</i>	
	IOE	IED
Relevance	Yes	Yes
Effectiveness	Yes	Yes
Efficiency	Yes	Yes
Sustainability of benefits	Yes	Yes
Overall project performance	Yes	Yes
Rural poverty impact	Yes	No
Development impact	No	Yes
Gender equality and women's empowerment	Yes	No
Innovation	Yes	No
Scaling up	Yes	No
Environment and natural resources management	Yes	No
Adaptation to climate change	Yes	No
Overall project achievements	Yes	No
Partners' performance		
IFAD/ADB	Yes	Yes
Government	Yes	Yes
Project completion report quality ratings		Yes
Scope	Yes	
Quality	Yes	
Lessons learned	Yes	
Candour	Yes	

* This is an ADB-specific criterion which corresponds to IFAD's criteria on overall project achievement.
Source: IOE and IED.

12. Data sources. The joint PPE reviewed the PCR, its validation prepared by IOE and other key project documents.⁸ Furthermore, the joint PPE built on available quantitative data (e.g. IFAD's Results and Impact Management System [RIMS]), project monitoring and evaluation (M&E) and other secondary sources such as the Eighth Five-Year Plan,⁹ Lao Expenditure and Consumption Survey,¹⁰ Agricultural Census¹¹ and qualitative data and information (e.g. ADB and IFAD project documentation). Qualitative data was collected during the field mission through focus group discussions (FGDs), key informant interviews, direct observations, and site visits.
13. Field visits. The PPE mission was undertaken from 27 February to 10 March 2017. The evaluation team split in two groups to cover as many districts and villages as possible. A total of four provinces (Luang Prabang, Lung Namtha, Houaphanh and Xieng Khouang), eight districts and 24 villages were visited. The project areas for field visits were selected in consultation with the project team, ADB Permanent Mission and IFAD's country office, taking into consideration the different socio-economic contexts, the level of implementation of project activities and the performance of project areas. The evaluation team met with national, provincial and district authorities and organized FGDs with various stakeholders (e.g. livestock production groups, Lao Women Union - LWU, women beneficiaries) in each village visited. A total of 26 FGDs were held. At the village level, the evaluation teams also engaged in direct observation of project outputs such as livestock, grass-growing and small-scale infrastructure. A wrap-up meeting was held in Vientiane on 10 March with the presence of the Vice Minister of Agriculture and Forestry to present the preliminary findings of the evaluation.
14. Triangulation. The evaluation findings are based on triangulation of data and information sources, which included: careful review of project documents, project M&E data and secondary data; site visits and inspection of various project activities; and interviews with key informants including Government officials, project beneficiaries, institutions and IFAD and ADB's operational staff, and other stakeholders.
15. Data limitations. Given the limited time and resources available, it was not possible for the PPE to visit all project locations, undertake extensive quantitative surveys, or examine the full spectrum of project activities, achievements and drawbacks.
16. The joint evaluation faced a number of challenges in the assessment of both effectiveness and rural poverty impact which were mainly due to the weaknesses of project-level M&E system and RIMS, including poor selection of indicators, unavailability of baseline and panel data throughout implementation, and external factors that could influence results and attribution of impact.
17. The project performance indicators lacked baselines, which questions the targets that were set and achievements claimed. Data collection only started in 2010, and the decentralized nature of project implementation resulted in inconsistent data provided by the district agriculture and forestry offices (DAFOs) and LWUs.¹² Finally, secondary data from the Government were found to be of poor quality.

⁸ ADB. 2015. *Lao People's Democratic Republic: Northern Region Sustainable Livelihoods through Livestock Development Project - Completion Report*. Manila. June; Lao PDR. 2014. *Northern Region Sustainable Livelihoods through Livestock Development Project Completion Report*. Ministry of Agriculture and Forestry, Department of Livestock and Fisheries. March. IFAD Validation report.

⁹ Lao. 2016. *8th Five-Year National Socio-economic Development Plan (2016-2020)*, Ministry of Planning and Investment, June.

¹⁰ Lao Bureau of Statistics. Expenditure and Consumption Survey, (5), 2012/2013.

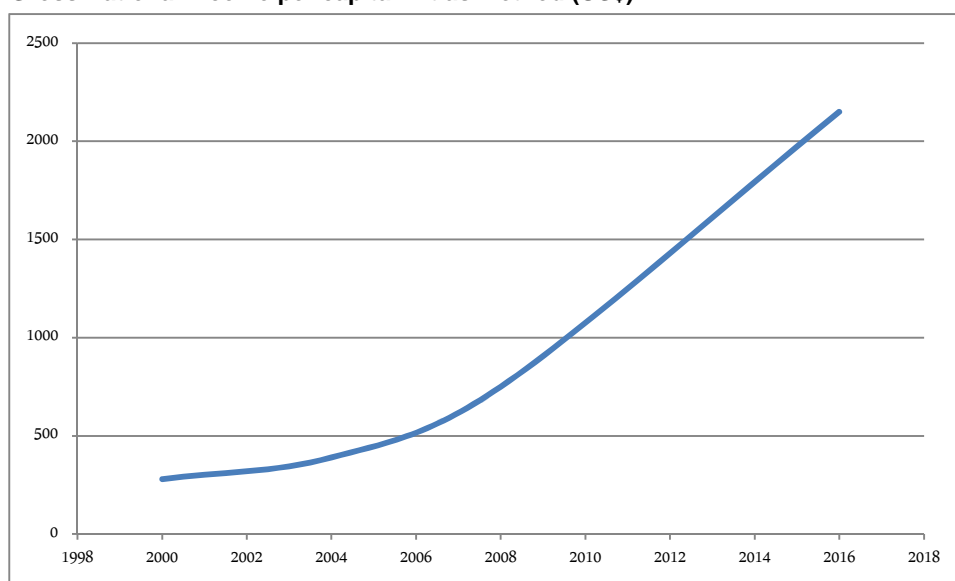
¹¹ Lao Bureau of Statistics, Agriculture Census 2010-11.

¹² The project suffered from start-up issues, and the real progress started from 2010 when midterm review took place. Project data mostly began from 2010.

III. Context

18. Geography and population. Lao PDR is a landlocked country of 236,800 km,² but only 6.6 per cent of the land is arable, and 80 per cent of the country is mountainous. The country comprises 16 provinces, one special municipality, one special region, 142 districts, 10,868 villages, and 852,500 households. The country is divided into two agro-economic zones: (i) the southern flat lands (primarily populated by ethnic Lao), mainly bordering the Mekong River; and (ii) the mountainous uplands (populated by multi-ethnic groups) along its northern and eastern borders. Administratively, the country is divided into three broad regions—northern, central and southern.
19. The country's population was 5.8 million in 2006, of which, 71.5 per cent was rural and 64 per cent was below the age of 20.¹³ The population has since increased to 6.5 million (2015).¹⁴ The overall population density in the country is low at 25 persons per km² and even lower in the northern hilly region. The population of the northern region is composed of 49 ethnic groups belonging to four ethno-linguistic families.¹⁵
20. Key macroeconomic indicators. Over the long term, the Lao economy has progressed steadily and today Lao PDR, a lower-middle-income economy with a gross national income (GNI) per capita of US\$2,150 in 2016 (figure 1) and a gross domestic product (GDP) average growth of 7.8 per cent, is one of the fastest-growing economies in the East Asia and Pacific region and globally.

Figure 1
Gross National Income per capita - Atlas method (US\$)



Source: World Bank, World Development Indicators 2017.

21. As a result of the rapid economic growth over a period of more than two decades, there has been an impressive decline in poverty head count (figure 2). As per the national poverty line, the number of poor was 27.6 per cent in 2007, and 23.2 per cent in 2012. The international US\$1.90 purchasing power parity dollars per day nearly halved from 1997, when it was 30.7 per cent, to 16.7 per cent in 2012. As

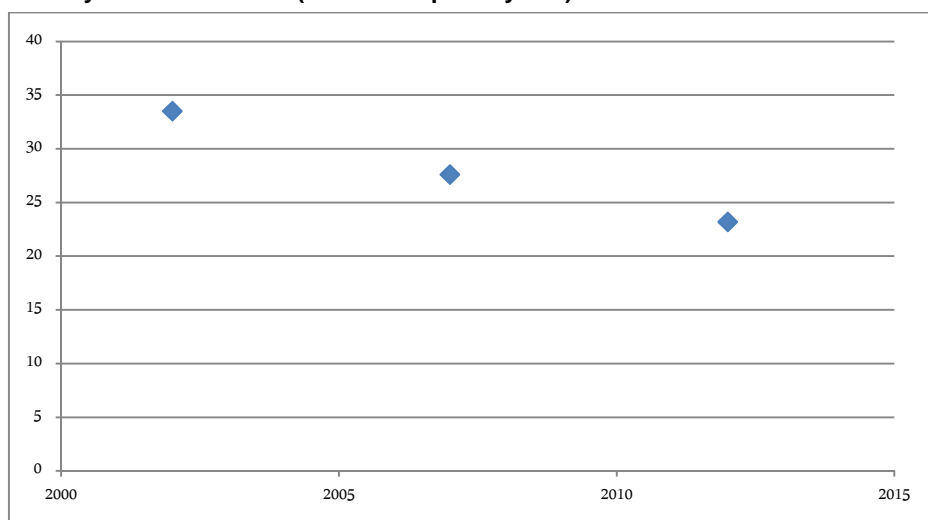
¹³ World Bank. World Development Indicators dataset. <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#> (accessed 7 July 2017).

¹⁴ Lao PDR. 2016. 8th Five-Year National Socio-economic Development Plan (2016-2020), Ministry of Planning and Investment, June.

¹⁵ SY: Lao People's Democratic Republic Northern Region Sustainable Livelihoods through Livestock Development Project TRC/OSC Brief, OSC Version.

per the Eighth Five-Year Plan¹⁶, there is substantial improvement in the levels of health, education and household welfare in the rural areas. The government is supporting decentralization of development administration to the lower levels.

Figure 2
Poverty head count ratio (at national poverty line)



Source: World Bank, World Development Indicators 2017.

22. Despite solid economic growth over the years, macroeconomic indicators point to excessive public debt (68 per cent of GDP), high fiscal deficit (about 17 per cent), and growing non-performing loans in the banking sector. The International Monetary Fund recently concluded that there were downside risks to the economy in view of the “significant vulnerabilities in the external, fiscal and financial sectors”.¹⁷
23. Moreover, rapid economic progress did not contribute to an improvement of the level of inequality, and the Gini coefficient remained stable at 0.36 in the period 2007-2012.¹⁸ The share of the lowest 10 per cent in the economy is only 3 per cent as compared the share of the top 10 per cent at 30.8 per cent. The gap between the bottom 10 per cent and the top 10 per cent continues to widen.
24. Agriculture. With a rapid increase in income during the last few decades, the share of agriculture sector in GDP has been declining rapidly. In 2010-2011 agriculture accounted for 27.3 per cent of GDP, but by 2014-2015 its share had declined to 23.7 per cent. Rice production is the basic staple (about 4 million tonnes per annum), along with corn, taro, fruits and vegetables. Coffee, cassava, maize and sugarcane are being cultivated on a commercial scale. Rubber plantations have also increased during the recent years. There is also a growing demand for organic vegetables in the domestic markets.
25. The last Census of Agriculture (2010-2011) shows that the number of smallholder households varies substantially across regions in the country. The northern region, which is the main focus of the project, accounts for 36.9 per cent of the country's smallholder households (table 2). Finally, topography in the northern regions is dominated by uplands and plateaus, and nearly three-fourths of rural households

¹⁶ Government of the Lao PDR, Ministry of Planning and Investment. 2016. Eighth Five-Year National Socio-Economic Development Plan, 2016–2020. Vientiane.

¹⁷ International Monetary Fund. 2017. Executive Board Concludes 2016 Article IV Consultation with the Lao People's Democratic Republic. Washington DC.

¹⁸ World Bank World Development Indicators.

live on such lands. A total of 45.4 per cent of smallholder households in the northern regions are not connected to rural roads.¹⁹

Table 2
Households, farm households and rural roads by region

Regions	Tot HH		Smallholder HH		Smallholder HH without roads	
	(000s)	%	(000s)	%	(000s)	%
Northern	323.0	31.6	288.9	36.9	35.8	45.4
Central	499.7	48.9	336.4	43.0	21.2	26.9
Southern	198.8	19.5	157.5	20.1	21.7	27.5
All	1021.5	100	782.8	100	78.8	100

Source: Government of Lao People's Democratic Republic, Bureau of Statistics. 2012. *Agriculture Census 2010-2011*. Vientiane.

26. Livestock. Livestock is a major part of the agricultural system in Lao PDR, comprising cattle (11.5 per cent of all livestock), buffalo (5.6 per cent), pigs (7.1 per cent), local chickens (62.8 per cent) and ducks (13.0 per cent). Demand for meat and meat products is growing rapidly in Lao PDR as per capita incomes increase. During 2010-2015, the consumption of meat, fish and eggs reached 42 kilograms per person annually in the rural areas and 56 kilograms in the urban areas. The Eighth Five-Year Plan document observes that average nationwide consumption of meat, fish and eggs is envisaged to increase on average by 5 kilograms per person every year. During the same period, livestock production on average increased by 5 per cent per annum. The size of cow herds grew by 5 per cent, cattle by 1-2 per cent and pigs by 3-5 per cent. Among the smaller animals, goats registered a growth rate of 4 per cent and poultry at 7-8 per cent during the same period.
27. The 2010-2011 agricultural census reported that livestock contributed more than one-third of value added in the agriculture sector. The northern region's contribution has greater potential for commercialization. In the context of limited opportunities for more intensive food crop production, the potential for more intensive rearing of livestock emerges as an attractive option in the project area. Given the small upland farms, improved livestock production provides an opportunity to capture higher value added than crop-based agriculture.
28. Socio-economic situation in the project area. NRSLLDP was designed for the hilly rural regions where the terrain is mountainous and food crop agriculture is based on unsustainable shifting cultivation. Although all the provinces in the northern region share a common hilly topography and are inhabited by poor ethnic groups, there were significant differences in terms of their proximity to the markets of neighbouring countries, namely Cambodia, People's Republic of China, Thailand and Viet Nam. Market linkages from across the border, whether in the form of agricultural produce or livestock, are shaping the development of these provinces. Similarly, physical features like flat land in the case of Xieng Khuang province in the central region have helped livestock commercialization to a large degree.
29. In the project's target districts, 60 per cent of the households were poor²⁰ and food-insecure at the time of the project design. During 2003-2012, every percentage point of GDP growth in the country was matched on average by a 0.47 decline in poverty.²¹ However, the northern hilly regions would have experienced a slower rate of poverty reduction, given that economic growth in the country was

¹⁹ Source: Lao Bureau of Statistics, Census of Agriculture 2010-2011.

²⁰ As per 2012 data, 16.7 per cent of the population was poor in terms of US\$1.90 purchasing power parity a day. Comparable number for the national poverty line for the same year was 23.2 per cent.

²¹ ADB. 2017. *Asian Development Outlook 2017*. Manila.

driven by the bulkier location-specific investments in hydropower and mining industries.

30. Ethnic population. The project area is mainly populated by ethnic groups — predominantly Lao Theung and Lao Sung — who are poor and isolated from mainstream development initiatives because of the geographical terrain, deficient investment in infrastructure, and different language and culture. The main constraints to the sustainable livelihoods of ethnic groups in northern Lao PDR relate to: (i) low productivity of upland agriculture; (ii) lack of adequate cultivable land and forest for food production and gathering; (iii) lack of financial services and extension support for livestock-rearing; and (iv) lack of access to appropriate technologies and marketing opportunities for improved livestock production.
31. Education and literacy including in Lao language among these two ethnic groups is low, especially among women. Literacy among young women of age 15-24 years is 65 per cent in the northern region while it is 76.3 per cent in the central region of the country.²² The issue of women's literacy is particularly important given their role in livestock development, and the low level of Lao literacy among the upland ethnic populations. The low levels of per-capita income and education indicators reflect the underlying deficient village infrastructure. The literacy level among women in farming households living in the houses without access to rural roads is 41.4 per cent, which is lower by as much as one-third compared to rural areas with access to roads (61 per cent).²³
32. Livestock-rearing plays a significant role in resource-poor upland households. Apart from shifting cultivation and forest resources, livestock is an integral part of the assets of most rural households, with about 90 per cent of all farm households raising one or more livestock species. Livestock production plays a key role in food security and supplements household income, where the sale of cattle, buffalo, pigs, and poultry accounts for about 50 per cent of annual household cash flows in upland areas compared to about 30 per cent nationally.²⁴
33. In this context, ethnic women are among the poorest people in the project area. They not only have heavy workload, but traditionally they also lack voice in household and village decision-making. This is mainly caused by dominant patriarchal economic and social structures, although this is beginning to change. The poor ethnic women play a major role in the day-to-day management of all livestock.

A. Project key information

34. Project target group. The ADB design document states that the project would reach 17,000 disadvantaged upland ethnic households in 408 villages of the 18 priority poor districts within the five provinces of Lao PDR. Within this target group, 50 per cent of the households were expected to be poor and comprised of 50 per cent women. IFAD opted for a more pro-poor approach and re-oriented the targeting strategy of the project to the poorest households, but without specifying the target.
35. Project objectives at design. The overall project goal was to reduce poverty by promoting sustainable livelihoods among upland smallholders in the five selected provinces of Lao PDR. The specific objective was to enhance village livestock systems through improved livestock productivity and profitability under integrated

²² Lao Bureau of Statistics. 2012. *Lao Social Indicator Survey (LSIS) 2011-12*, Multiple Indicator Cluster Survey, Demography and Health Survey. Vientiane, December.

²³ Lao Bureau of Statistics. 2012. *Lao Social Indicator Survey (LSIS) 2011-12*, Multiple Indicator Cluster Survey, Demography and Health Survey. Table ED 1.1 Literacy among young women, Vientiane, December, p. 216.

²⁴ Hansen, P. 1998. Animal husbandry in shifting cultivation societies of Northern Laos. Australian Centre for International Agricultural Research Proceedings No. 87. Canberra, Australia; and Stür, W., Gray, D. & Bastin, G. 2002. Review of the Livestock Sector in the Lao PDR. A sector review prepared on behalf of the International Livestock Research Institute for the Asian Development Bank (ADB).

- upland farming systems. Thus, improvement in livelihoods of ethnic populations and livestock development were the two main and related concerns of the project.
36. As stated in the IFAD President's Report, additionally, the project was expected to have an influence on the following key policy and institutional areas: (i) stabilization of shifting cultivation in the upland areas based on the principle of ensuring sustainable livelihoods for the local population and for people resettled from these areas; and (ii) gradual decentralization to the provincial, district and village levels of authority, functions, resources and accountability for the planning, financing and implementation of development initiatives.
 37. Project components at design. NRSLDLP comprised three investment components:
 - Component 1: Enhanced village livestock systems, including three subcomponents: (i) productivity initiatives; (ii) market linkages and enterprise development; and (iii) participatory extension network;
 - Component 2: Capacity-building for community-driven development (CDD), which includes the village livelihood fund (VLF) lending and infrastructure activities; and
 - Component 3: Project implementation management.
 38. Project cost and financing plan at design. The total project cost was estimated at US\$18.4 million at appraisal. IFAD funding was provided as a loan in the amount of Special Drawing Rights (SDR) 2.0 million (approximately US\$3.0 million). ADB approved US\$9.3 million as a loan and US\$0.7 million as a grant. SDC pledged US\$3.5 million as a grant. The Government of Lao PDR assured a contribution of US\$1.1 million while beneficiaries were expected to contribute US\$0.8 million.
 39. The project design was prepared with the help of ADB's project preparatory technical assistance (PPTA 4287) for US\$900,000, which was approved in December 2003. In October 2004, a capacity development technical assistance (TA 4406) for US\$550,000 was provided by ADB to help strengthen executing agencies' capability before launching project implementation. The ADB Executive Board approved the project in September 2006, and the IFAD Executive Board approved it in December of the same year. During implementation, broad capacity development support including for LWU was extended through a Japan Fund for Poverty Reduction grant (#9107) for US\$533,500, which was approved in May 2007.
 40. Implementation arrangements. The Ministry of Agriculture and Forestry (MAF) was the executing agency and the Department of Livestock and Fisheries (DLF) within MAF was the implementing agency of the project. NRSLDLP was managed from a dedicated regional office in Luang Prabang, five provincial implementation offices and 18 district implementation offices. The regional office had the overall responsibility for coordinating, supervising and managing the day-to-day activities of the project and was headed by the National Programme Director. With the implementation of the microfinance activity, LWU teams were contracted in each of the 18 districts to work with district extension offices in supporting the farmers to access funds for livestock production. Annual work plans with input from the districts and provinces were developed each year and submitted to the Project Steering Committee and ADB for approval. Any changes to approved work plans were also notified to the ADB for further approval.
 41. Timelines and milestones. The project was implemented between April 2007 and May 2015. The key milestones are presented in annex VI.

IV. Theory of change

42. The joint evaluation reconstructed the ex-post the ToC of the project (annex VII). The ToC reflects the evaluation team's understanding of the pathways (from project activity outputs to outcomes and impact of the three project components), and the main assumptions which needed to hold true for the project to achieve intended outcomes and impacts. The rationale for developing the ToC ex-post is rooted in the limitations of the project's logical framework. While acknowledging the effort made at design in developing the results chain in the logical framework, the latter treats the various project components separately and therefore it does not clearly show their synergies and how they mutually reinforce each other to achieve overall project objectives. Also, it does not describe the intermediate steps and causal linkages guiding the project logic from investments to outputs to purposes. Finally, the assumptions, which identify what is necessary for the causal links to work, are general and mainly linked to the economic context.²⁵ Thus, the ex-post ToC is a useful framework to guide the evaluation and identify the data and line of inquiries to be pursued and analysed.
43. The NRSLLDP aimed to reduce poverty by improving the sustainability of livelihoods of poor upland smallholders in northern Lao PDR through the introduction of enhanced village livestock systems. Given the low level of development in the project area, smallholders required technical assistance, general development support, and access to livestock-related government services. Each of these challenges was to be addressed by one of the project components. Thus, the project design combined livestock support activities (including extension services, marketing, and new technologies and practices), CDD (e.g. group formation, village revolving fund, literacy) and implementation support (including strengthening and coordination of the extension and LWU services).
44. The ToC makes the following key assumptions: (i) existence of an enabling institutional and policy environment for livestock development; (ii) sufficient demand for livestock in the selected provinces, in the rest of the country and in the neighbouring trading countries; and (iii) since each province has its own regional specificities and local needs, context-specific sectoral strategies as well as institutional and social targeting strategies that should underpin project implementation.
45. Assuming there is an efficient flow of funds to the project, trainings activities are effective and the engaged extension and LWU staff have the right qualifications and skills, the project should successfully support the setting up of Livestock Production Groups (LPGs) in target villages and provide inputs supply. The latter mainly entails the introduction of forages and vaccination, improved feeding and breeding methods, and increasing farmer's knowledge on livestock production as well as understanding market opportunities.
46. Access to finance is essential to purchase animals and increase livestock production. As such, it was fundamental to improve the understanding of microfinance among the LPGs and set up a microfinance facility in each district to encourage farmers to purchase and manage their livestock. Also, to enable better access to markets, the project should construct/rehabilitate key village infrastructure.
47. The above implies an increased understanding of microfinance and local market dynamics for livestock. Most importantly, relevant activities should be conducted in synergy, rather than independently of each other. For instance, the technical and community mobilization activities should be implemented with a market-led

²⁵ ADB. 2006. Report and Recommendation of the President to the Board of Directors. *Proposed Loan and Asian Development Fund Grant—Lao People's Democratic Republic: Northern Region Sustainable Livelihoods through Livestock Development Project*. Manila. September, Appendix 1.

livestock development lens. Moreover, the inputs supply (especially the provision of forage and vaccinations) must respond to the local needs for improved livestock production, particularly of large ruminants, pigs, goats and poultry.

48. If these assumptions hold true and project-level outputs have been successfully achieved, the project should be able to: (i) enhance capacity among the beneficiaries; (ii) improve their saving and credit capacity towards increased reinvestments in the sector; (iii) disseminate the necessary knowledge and market information; and (iv) develop sustainable infrastructure to support market access and trading of livestock.
49. To meet its objectives, the project should have induced a behavioural change in the beneficiaries towards the uptake of new technologies and access to microfinance facilities, banks and the livestock market. This entails having access to the right resources (in particular land and water) to be able to take up the newly introduced technologies. Moreover, it would enable them to exploit marketing opportunities through enhanced negotiation power, and subsequently improve production and their productivity and ultimately the entire village livestock system that is in place.
50. These enhanced livestock systems would generate additional income, provided that: (i) the established infrastructure is sustainable; (ii) the demand for livestock and its market prices remain stable; and (iii) the Government provides long-term financing and institutionalizes the LPGs.
51. The set-up of efficient and effective project implementation management has its own impact pathway such that trainings and facilities are provided to the concerned government coordinating and executing staff to build their capacity and ultimately support the Government decentralization efforts. Shorter communication and information flows may result in speedier decision-making and more effective implementation.

V. Main evaluation findings

A. Project performance and impact

Relevance

52. In accordance with the IFAD evaluation manual and ADB guidelines, relevance of the project was examined in terms of four dimensions: (i) relevance of objectives; (ii) relevance of design; (iii) relevance of targeting strategy; and (iv) relevance of innovations. These are discussed below.
53. Relevance of objectives. The project was relevant in terms of its alignment with the Lao country strategic opportunities programmes of IFAD²⁶ and the country strategy of ADB,²⁷ and IFAD's and ADB's policies and strategies.²⁸ It was also relevant to key national policies of the Lao Government, such as the poverty reduction policy enunciated in the context of the National Growth and Poverty Eradication Strategy (NGPES).²⁹ In fact, the project covered 18 of the 37 poorest districts earmarked for priority action in the NGPES.
54. By focusing on the provinces where livestock was usually exported to neighbouring countries such as Viet Nam, the project also fitted well with the then ongoing ADB-financed regional technical assistance projects for transboundary animal disease control and trade facilitation in the Greater Mekong Sub-region.³⁰
55. Given the unstable agriculture in upland communities, its low productivity and the limited availability of cultivable land, the project's approach to shift to higher-value production per hectare and per unit of labour by improving the livestock production system in the upland villages was relevant to the needs of targeted communities.
56. The project remains relevant to date. In fact, the growing demand for meat products within Lao PDR as well as across the borders establishes livestock development as an attractive economic option. The project design responded to the ground conditions of ethnic populations and continues to remain highly relevant for sustaining rapid economic growth and responding to the needs of the target groups.
57. Relevance of design. The project had a logical framework at design which described the results chain from inputs to outputs to objectives. Yet, as highlighted in the rationale for developing the ToC ex-post, the framework did not highlight the synergies among the various components, and performance indicators were poorly selected, many were not time-bound, and they were without baselines and targets. The multiplicity of components covering numerous sub-sectors (e.g. capacity building, microfinance, markets, governance and environmental management) required coordination and synchronization of different inputs from various cofinancing partners, which has proven to be demanding for the implementation, monitoring and supervision of activities notwithstanding the adjustments made after the mid-term review (MTR).
58. Other factors also contributed to the complexity of design. First, the provinces and districts covered by the project are very diverse in terms of topography (hilly, plateau or plains), and economic and social development characteristics, as also

²⁶ IFAD. COSOP for Lao PDR.

²⁷ ADB. 2006. *Country Strategy and Program: Lao People's Democratic Republic, 2007-2011*. Manila.

²⁸ IFAD. 2016. *Strategic Framework 2016-2025: Enabling Inclusive and Sustainable Rural Transformation*. Italy.

²⁹ The project was also consistent with the following: (i) the Government's Sixth Five-Year National Socio-Economic Development Plan, in which commercial agriculture was a priority; (ii) the Department of Livestock and Fisheries Vision for Livestock Development, which recognized both the potential market opportunities for livestock development and the potential role for smallholder farmers to benefit through a sustainable increase in livestock productivity; and (iii) the five-year Agricultural Development Strategy (2011-2015), which envisaged sustainable development and gender equitable poverty reduction.

³⁰ ADB. 2004. *Technical Assistance to Cambodia, People's Republic of China, Lao People's Democratic Republic, Thailand, and Viet Nam for Transboundary Animal Disease Control in the Greater Mekong Sub-region*. Manila (TA6192-REG).

- confirmed by the joint PPE field visits. Second, the ex-post reconstruction of the ToC identified synergies among the different project components as a key condition for the project to achieve the desired results. However, while each element of the project design was noteworthy, these did not come together in a coherent manner.
59. The project's approach to smallholder livestock extension and smallholder development was technically sound. The IFAD design expanded the objectives beyond livestock development and gave broader attention to CDD and decentralization.
 60. However, the IFAD design document was relatively brief and did not contain an adequate description of the components, proposed subcomponents, main activities, or implementation plan to ensure synergies and complementarity. As a result, the CDD component was not adjusted during implementation to integrate and complement the other project objectives. Moreover, a more careful analysis of the context and available skills and human resources would have recognized at the outset the complexity of managing a VLF and that additional support (e.g. implementation consultants, technical assistance) was needed for the microfinance system to function, particularly given the low capacity and familiarity with microfinance. The design favoured an external and not well adapted Self-Employed Women's Association³¹ model rather than looking at the successful experience of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and other development partners piloting village banking approaches in Lao PDR.³²
 61. Along the same lines, the absence of a careful analysis of the existing market conditions at design constrained project results and efficiency. Marketing-related activities were dropped after the project MTR, as these were deemed premature prior to the improvement of livestock production systems and the increased outputs. The decision to drop the marketing component narrowed the project scope substantially and constrained the effectiveness of the project (as explained in the next chapter).³³ Moreover, the objectives related to decentralization could have been better resourced.
 62. With regard to the relevance of the targeting strategy, the ADB design document states that the project aimed to "positively impact at least 17,000 ethnic households in 408 villages. At least 50 per cent of all beneficiaries are likely to be poor households". It further specifies that in particular "ethnic groups and women" are supposed to benefit from CDD activities and activities focused on livelihood improvement.
 63. The IFAD President Report includes self-targeting mechanisms that would benefit the poor and the poorest wherever possible. The geographic targeting based on the NGPES was relevant. However, the self-targeting mechanism adopted did not help the project reach the poorest smallholders. In this regard, a better context analysis of the different provinces and a consequent differentiation of the activities would have allowed a more focused targeting of the poorest. To provide an example, inflexibility in lending for certain livestock precluded preferences of the poor households.
 64. Relevance of innovations.³⁴ Several relevant production and livestock management technologies were introduced at design, including vaccination, penning of livestock, feed preparation, and animal health care.

³¹ The Self-Employed Women's Association is a trade union in India. Its members are poor, self-employed women who earn a living through their own labour or small business.

³² Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). 2014. *Rural Finance in Laos: GIZ Experience in Remote Rural Areas*. Germany.

³³ However, it forced a distinct recognition of commercialization aspects of livestock development in the follow-up project. ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loan for the Northern Smallholder Livestock Commercialization Project in the Lao People's Democratic Republic*. Manila.

³⁴ In accordance with ADB's guidelines, the relevance of design also looked at the innovative features of the project.

65. The project design did not clearly map the transition pathways of these technologies, describing their expansion in quantities and over time, and insufficiently considered and addressed impediments such as: (i) the scarcity of cultivable land and water resources needed for new technologies (particularly forage cultivation); and (ii) the readiness of the farmers in terms of time, interest and capacity to successfully adopt new practices. Moreover, the project design failed to recognize that to improve livestock systems and transition from a peasant-oriented model to commercial farms, a larger toolkit of technologies and financial support is needed to benefit the whole livestock value chain. This jump is seen in the follow-up livestock project,³⁵ although emphasis on livelihood is in danger of being weakened.
66. Rating. The project was relevant in terms of its alignment with the Lao country strategic opportunities programmes of IFAD, country strategy of ADB and key national policies, as well as relevant to the local context and the needs of the poor. The focus of the project on livestock development and the northern regions was key. However, NRSLLDP could have achieved enhanced results and impact if more attention had been devoted to synergies between the activities and the components, and if each component had had its own targeting strategy. Finally, to improve livestock systems and transition from a peasant-oriented model to community farms to commercial farms, a larger toolkit of technologies with a clear transition pathway and financial support are needed to benefit the whole livestock value chain. Both IOE and IED consider the project as relevant. IED assesses the project as relevant. IOE assigns a rating of moderately satisfactory (4).

Effectiveness

67. Bearing in mind the limitations highlighted in the methodology section of the report in terms of data quality, the paragraphs that follow discuss the project's achievements against the three project objectives, as modified during MTR.³⁶ The project's overall physical progress was estimated at 106 per cent at project completion, and the specific targets were reached or exceeded in some cases during implementation based on both the government and ADB PCRs. Progress against the project's logical framework is presented in annex IV.
68. Objective 1. Enhanced village livestock systems through improved livestock productivity and profitability under integrated upland farming systems. This specific project objective was to be attained through the provision of productivity enhancements, provision of livestock, and support to markets.
69. The productivity initiatives promoted by the project were intended to enhance the livestock practices of smallholder farmers. Most of these activities exceeded their targets, based on project documents. Based on key informant interviews and field observations, the actual achievements are more modest.
70. The most significant benefit to productivity came from animal vaccinations, which were provided by the project at no cost to the project beneficiaries. Targets were met or exceeded. In this respect, table 3 shows that the use of vaccinations has increased across all categories of animals but more prominently for large ruminants (cattle and buffalo). The rise in vaccinations for the large ruminants is steady and seems to be more broad-based than just under the project. Although the absolute numbers are large, poultry is the most variable due to the complexity of the vaccination.³⁷ This aspect of the project complemented the Government's own initiative to promote vaccinations. While the free vaccinations have been a success

³⁵ ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loan for the Northern Smallholder Livestock Commercialization Project in the Lao People's Democratic Republic*. Manila.

³⁶ This section draws from quantitative information reported in the ADB and Government PCRs, supplemented by qualitative information from the evaluation mission findings.

³⁷ Chicken needed several doses of vaccinations every few weeks to be effective, as compared to cattle with only two vaccinations per year.

in terms of protecting animals, the project did not ensure that vaccinations would be available in the future, as further explored under sustainability.

Table 3
Numbers of livestock vaccinated annually by the project

Type of livestock	2008	2009	2010	2011	2012	2013
Large ruminants	5 974	17 890	22 821	15 401	28 913	52 684
Large ruminants (outside project areas)				22 029	101 740	280 823
Pigs	4 043	22 890	17 063	12 268	12 271	14 258
Goats	221	4 680	5 326	3 304	2 121	4 524
Poultry	11 314	73 249	44 242	59 322	33 849	44 838

Source: PPE analysis from the project M&E and the project completion report.

71. The project M&E records indicate that 71 of the 72 envisaged on-farm demonstration units were established. Further, 6,810 households (114 per cent of the target) adopted improved livestock forage technologies and livestock management systems, and around 180 per cent of the cultivation target of forage crops and cassava was reached.
72. Many of the demonstration farms are not being used as planned, with poor farmer selection being a highlighted factor. Likewise, the trainings conducted were not systematic and did not include the necessary follow-up. As such, many practices were tried but not taken up, and the farmers reverted to past practices. Forage cultivation is one example, as farmers found it difficult to maintain productive pastures, particularly in the dry season. As a result, the PPE mission found limited examples of forage crops still being maintained. FGDs underlined that the lack of land and water are major constraints to the cultivation of forage. Thus, a key ToC assumption did not hold true.
73. Provision of livestock through the VLF. The number of cattle, which are in high demand, increased over the project period in both the project areas and provinces. The number of smaller animals, which were critical for enhancing the welfare of poor households, increased by a lower degree. This is due to the aforementioned complexity of the vaccination regimes and lower returns, which did not trigger adequate attention during the project.
74. Market linkages and livestock enterprise development. With regard to the improvement of household knowledge about livestock markets and skills in livestock trading, 168 LPG members (as opposed to 155 expected) from the identified agro-enterprise villages participated in a marketing and value-chain study tour. This participation was expected to contribute to: (i) the strengthening of farmer-trader links and the identification of opportunities and constraints through seasonal calendar planning; and (ii) increasing market awareness of around 6,045 LPG members (101 per cent of the target) and strengthening their ability to negotiate better with their traders.
75. However, as mentioned under relevance, this subcomponent was dropped at project MTR. Based on findings from a marketing study, it was concluded that it would not be useful to improve marketing systems until there was sufficiently excess production from the farmers and a real need for marketing support was identified. Field visits indicated that marketing issues persist. These factors are likely to become more evident in the near future due to continued increasing demand for livestock products.
76. Participatory extension networks. Specific targets at design and data at completion are not available in full. However, field visits and interviews confirmed

that the extension activities facilitated the uptake of appropriate technologies which met smallholders' needs and provided inputs for livestock production and sale. Moreover, interviews at the provincial and district levels revealed that extension workers and LWU staff capacity was strengthened in priority areas through training programmes and the provision of technical and extension materials.

77. Objective 2. Enhanced capacity of upland communities for CDD through participatory mobilization and organization of community-based groups for production, revolving funds and infrastructure development.
78. Community mobilization. The project supported 1,600 LPGs (13,071 households) which shared a common goal and were largely used to deliver project services. Extension workers and LWU staff carried out the required trainings although there were issues with language, the timing and sequencing of trainings, and follow-up. After completion, extension services were no longer provided and many LPGs disbanded.
79. The evaluation is of the view that a key ToC assumption did not hold true, as the trainings and technologies introduced were not always tailored to the diversity of the geographic areas and the social contexts of the various ethnic groups. Moreover, community mobilization was used for delivering extension and VLF services rather than as a conduit to develop the broader collective social capital needed to voice the farmers' priorities effectively in future decision-making and resource allocation processes.
80. Microfinance. Microfinance credit provided a single loan jointly to husband and wife in a family, with no provision for multiple loans. At the end of the project, the VLF had provided 9,519 loans to households (159 per cent of the target), 98 per cent of which were for livestock purchases. Thus, the target of improving access to credit by women, and poor and ethnic households was met or exceeded. However, implementation proved challenging and little capacity has been built to ensure that VLF can be maintained.
81. Although the CDD and microfinance components were the twin triggering elements of the project, the latter received greater attention and effort. The design of the microfinance programme, preparations for its implementation as well as the administration supporting the programme became central to the project design. However, its implementation and delivery were fully outsourced to the LWU through a SDC grant. The LWU responded with readiness and much vigour. However, there was little prior know-how, preparation or experience on the part of either the LWU or the borrowers about microfinance principles, in particular revolving funds, and how microfinance could be delivered under the project to achieve the desired objective.
82. Project beneficiaries pointed out during the FGDs that the interest rates were too high, the ceiling on loan amounts were too low, and the loan maturities too short as compared to the financial services provided by other development agencies and national banks. Moreover, the 20 per cent saving requirement, which was deducted upfront from the approved loan amount to comply with the requirements, was not fully explained to participants.
83. The design of the microfinance component was ambitious in pressing ahead with lending despite the lack of financial literacy, limited preparatory activities and insufficient understanding on the part of borrowers about their obligation to repay loans. The LWU was to provide training and build organizational capacity in participating village communities for CDD.³⁸ However, due to demands and

³⁸ As per the design, the contracted provincial and district LWUs were responsible for community mobilization and the formation of community-based groups such as producer groups for livestock management training and extension, group-based microenterprises, marketing groups, and revolving fund groups, among others (TRC/OSC BRIEF).

complexities of administering the VLF, the LWU's focus was diverted almost entirely to lending and microcredit.

84. The project achieved its immediate objective of providing credit for livestock. However, as further detailed in the impact section, it did not trigger further investments in the livestock sector, and delay or non-repayment became an issue affecting both project impact and the sustainability of its benefits. It also did not make progress in introducing a viable revolving fund.
85. Village infrastructure development. The Village Infrastructure Development Fund (VIDF) financed a total of 260 small infrastructure projects, which was lower than the target of 300 due to cost escalation during project implementation. Although a variety of infrastructure was constructed in the project villages, about 54 per cent of the VIDF investments were used for constructing meeting halls for villagers. The remaining investments were mostly minor and related to irrigation improvements and water supply. A total of 116 village community halls, 21 small irrigation schemes, 40 gravity-fed water supply systems, 19 water reservoirs, 3 culverts or bridges, 8 schools and 45 public toilets were built (annex IV).³⁹
86. The above results show that the village infrastructure fund supported the CDD aspects of the project. The project improved the tending of livestock in-house or through penning. The evaluation team was able to visit some of the shelters built for animals. Even though they are basic, they are key to protect animals and an important step in the development of the value chain. Yet for livestock development and commercialization, it is important to go a step further and for new infrastructure to directly address impediments such as access to water, medicinal supplies, cold-chain, access roads and market infrastructure.
87. Objective 3. Enhanced implementation management support. Under component 3, the project sought to ensure efficient project implementation and to gradually decentralize authority, functions, resources and accountability for the planning, financing and implementation of initiatives at the provincial, district and village levels. These aspects will be treated to a greater extent in other sections of the report (e.g. efficiency, impact on policies and institutions).
88. The implementation of NRSLLDP was managed at the provincial level through a regional office in Luang Prabang, rather than at central level in Vientiane. The initial organizational structure of the project at appraisal made provision for the following functions: project management, implementation, administration, M&E, procurement, and accounting and finance. Additional staff were added and appointed to supervise the VIDF and VLF activities during implementation of the project.
89. A key shortcoming was the difficulty in finding skilled staff with adequate training and experience for project implementation. The Government's PCR noted that while some of the staff were seconded from the Government, there were functions like accounting and M&E that had to be filled by personnel from outside the Government. Notwithstanding ADB's technical assistance and the Japan Fund for Poverty Reduction (JFPR) grant project for capacity building, the Government's PCR observed that donors did not give sufficient guidance and assistance in establishing appropriate procedures and systems at the beginning, which hindered timely and effective implementation.
90. Effectiveness of outreach and targeting approach. The project intended to directly target 408 villages in 18 priority poor districts of five northern provinces of Lao PDR. Within these villages, it aimed to reach at least 17,000 households, of which approximately 50 per cent were expected to be poor, and 50 per cent of the

³⁹ Government of Lao People's Democratic Republic, Ministry of Agriculture and Forestry, Department of Livestock and Fisheries. 2014. *Completion Report: Northern Region Sustainable Livelihoods through Livestock Development Project*. Vientiane. para. 242.

population were women. Due to the start-up delays and shortening of the effective field implementation period,⁴⁰ there was a clear recognition during MTR that the original targets could not be achieved. Hence, the number of targeted villages was reduced at MTR from 408 to 300, and the targeted households from 17,000 to 12,000. Table 4 below illustrates that at project completion, the project managed to exceed the revised target by reaching a total of 321 villages and 13,100 households, which are also LPG members.

Table 4
Target population at project completion

<i>Provinces</i>	<i>Districts</i>	<i>Villages</i>	<i>LPG households</i>	<i>Population</i>
Bokeo	2	36	1 836	11 934
Houaphanh	6	107	4 194	29 777
Louang Namtha	4	68	2 647	18 529
Louang Prabang	4	70	3 444	21 697
Xieng Khouang	2	40	979	6 266
Total	18	321	13 100	88 203

Source: project completion report 2014.

91. The project targeted the poorest districts as identified in NGPES, according to the design of the targeting strategy. It met its quantitative targets for the participation of upland ethnic groups, but it did not manage to attract the poorest households to join the LPGs. It proved difficult to include more poor households in the activities despite the attention given to poverty targeting. The poor households were less able to bear the risks associated with intensified livestock production. They were risk averse and did not feel inclined to borrow and be in debt. Interviews with LPG members in the field also confirmed that they had less time available for group activities. While the project aimed at having 6,000 LPG members, at completion, it reached 4,179, equal to 70 per cent of the reduced target.
92. In addition, the project focused mainly on larger livestock (cattle and pigs) with little attention to goats and poultry, which would have been of more interest to the poorer households. The project and the VLF were implemented in a manner that was contingent on accessing microfinance to procure livestock. Project data on loans broken down by animal species confirm that loans for large ruminant and pig production account for more than three-fourths of the total loans (table 5).

⁴⁰ Despite the extension of the project closing date, the effective field implementation period was reduced from 72 months to 57 months due to start-up delays.

Table 5
Loans broken down by production group focus

<i>Production group focus</i>	<i>Production group households</i>						
	HH	%	Single women	%	Single men	%	Total number
Large ruminant	3 660	97.6	64	1.7	26	0.7	3 750
Pig	3 512	96.6	82	2.3	43	1.2	3 637
Goat	969	94.3	19	1.8	40	3.9	1,028
Poultry	911	94.2	37	3.8	19	2	967
Fish	37	97.4	1	2.6	-	0	38
Ruminant trading	24	100	-	0	-	0	24
Handicraft	55	100	-	0	-	0	55
Weaving	20	100	-	0	-	0	20
Total	9 188	96.5	203	2.1	128	1.3	9,519

Source: Government of Lao People's Democratic Republic, Project Management Office. 2017 and project completion report, table 22. 2014.

93. Women's representation in LPGs was almost in line with those of the men, with 49.8 per cent of the members being women (12,688) compared with a 50.2 per cent being men (12,733). The project also met its target of recruiting women into the livestock extension services. It faced more difficulty in recruiting ethnic people who met the required language and agricultural training skills. While the project design provided for literacy and numeracy training as a part of capacity building among ethnic populations, these activities were not implemented. Thus, an opportunity to shore-up generic skills and competency among the target population was missed.
94. Rating. IOE rates the effectiveness of the project as moderately unsatisfactory (3). IED rating is less than effective. The evaluation acknowledges the role of NRSLLDP in fostering greater awareness about using modern technology, especially vaccinations, and improved tending of livestock in-house or through penning and provision of shelters. However, while the project was strong on delivering outputs (e.g. provision of vaccinations, animals through the VLF, small-scale infrastructures), it was weak on achieving intermediate outcomes requiring learning and changing practices and behaviours. As such, the uptake on new practices and the establishment of viable LPGs and VLFs were limited. Finally, the project did not manage to reach the poorest households within the targeted poor districts.

Efficiency

95. The efficiency of project is discussed below in term of a review of the economic re-evaluation by the PCR at project completion, as well as in terms of process efficiency, including time, expenditure and resource utilization issues.
- (i) Economic re-evaluation
96. EIRR and FIRR at project completion. The evaluation did not recalculate the EIRR, as the required data related to the procurement of livestock, their cycle of maturity and their sale was not available. Instead the evaluation re-examined the economic analysis in the PCR, which was found to be rigorous. The overall EIRR for

the project was estimated in the ADB PCR at 15.7 per cent. While this is slightly below the appraisal estimate of 17.2 per cent,⁴¹ it is above the cut-off benchmark (12 per cent).⁴² The reduction was mainly attributed to the delayed implementation and reduced number of beneficiaries. The financial internal rate of return (FIRR), at 13 per cent, is well above the 2013 benchmark weighted average cost of capital for Lao PDR.

97. The economic re-evaluation noted that the prices of livestock products, especially cattle and pigs, are key determinants of the overall profitability of investing in livestock development.⁴³ In this sense, regional or global prices of meat play a critical role in developing the livestock industry on a commercial basis. The option of shifting consumption demand between domestic and export markets may also be an important strategy that determines the profitability of livestock development in Lao PDR. This is important – as per capita income increases, the demand for meat, fish and egg products is also growing rapidly in the domestic market.
98. Economic re-evaluation revealed that in terms of livestock production costs, the economic wage rate is the single most important element determining livestock costs; hence, household labour seems to be an important source of value-addition.⁴⁴ This finding implies a tactical advantage to the household-based livestock production model, which is in line with the initial project design.⁴⁵ Variations in other economic variables had relatively lower impact on the rates of return. Pigs, cattle and poultry were found to be high-yielding investments. Investment in goats was found to be the least profitable.
99. The focus of the project was on improving livelihoods of upland populations through livestock development. However, the economic re-evaluation analysis was closely linked to the VLF and livestock purchased from borrowings. As noted in the PCR, others who invested their own resources in livestock development did not figure in the re-evaluated economic analysis. Likewise, certain livestock (e.g. goats, poultry) for which fewer VLF resources were made available were not included in the economic re-evaluation.
100. Hence, the economic evaluation undertaken during the PCR, while remaining sound in terms of its methodology, confines itself only to the main strand of VLF-supported project activities related to cattle, buffalo and pigs. This has two implications. Firstly, it underestimates the economic gains of the project. Secondly, the gap between the economic and financial rates of return appears narrow. Given the lack of economic opportunities in the remote rural areas, and the low cost of household labour, one would expect a much larger EIRR in relation to FIRR. Given the increasing production of chickens, goats and ducks in the country during the Seventh Five-Year Plan,⁴⁶ there appears to be ample demand for these products. Hence, going forward, the economic pay-off from them could be even larger than the other livestock, especially for the poorer households.

⁴¹ “The rates of return analyses to individual enterprises are sensitive to: (i) the number of animals raised; (ii) the number of production cycles per year (poultry and pigs); (iii) whether young animals for fattening are purchased at the start of each cycle or are the offspring of the existing herd; and (iv) livestock mortality.” ADB. 2015. *Lao People’s Democratic Republic: Northern Region Sustainable Livelihoods through Livestock Development Project—Completion Report*. Appendix 12. Manila, para. 10.

⁴² Which has recently been reduced to 9 per cent for ADB projects.

⁴³ ADB. 2015. *Lao People’s Democratic Republic: Northern Region Sustainable Livelihoods through Livestock Development Project—Completion Report*. Manila. Appendix 12, para. 18.

⁴⁴ “(...) much of the labour used in animal husbandry (herding, cutting feed, and watering) is performed by family members for whom the opportunity cost of time is low.” ADB. 2015. *Lao People’s Democratic Republic: Northern Region Sustainable Livelihoods through Livestock Development Project—Completion Report*. Manila. Appendix 12, para. 12.

⁴⁵ “Overall, the models developed by the project preparatory technical assistance capture the features of the predominant traditional livestock systems and remain relevant in terms of physical input and outputs.” ADB. 2015. *Lao People’s Democratic Republic: Northern Region Sustainable Livelihoods through Livestock Development Project—Completion Report*. Manila, Appendix 12, para. 5.

⁴⁶ Government of the Lao PDR, Ministry of Planning and Investment. 2011. Seventh Five-Year National Socio-Economic Development Plan, 2011–2015. Vientiane.

(ii) Process efficiency

101. Time overruns. The project experienced slippages in implementation due to delays in start-up,⁴⁷ difficulties in implementing the project in remote districts spread over a wide geographic area, and the complex nature of activities being undertaken. Consequently, the ADB loan was implemented over a seven-year period rather than five years and five months, resulting in a delayed loan closing by 19 months for ADB and 14 months for IFAD.
102. Project costs. The project achieved scaled-down outputs and outcomes after MTR despite the availability of unutilized financial resources at completion (table 6). Further, the pattern of expenditure under the project deviated substantially from the appraisal estimates. Under the ADB loan, civil works expenditure was overshoot by about 40 per cent; the village revolving fund increased by about 20 per cent; farmers' training by more than 140 per cent; and project supervision jumped by nearly 270 per cent. If expenditures from other sources such as technical assistance projects and JFPR are combined, the increase in total expenditure becomes more apparent. The most conspicuous increase is the project management cost, which rose from US\$0.5 million to US\$5.05 million, i.e. by more than ten times.⁴⁸

Table 6
Summary of the utilization of funds by financier

Source of funds	Financing agreement (US\$)	Disbursed (US\$)	Disbursed (%)	Undisbursed (US\$)
ADB loan	9 635 389	9 429 405	97.9	205 984
IFAD loan	3 054 006	2 202 297	72.1	851 709
SDC grant	3 500 000	3 367 055	96.2	132 945
ADF grant	700 000	556 469	79.5	143 531
JFPR grant	533 500	459 738	86.2	73 762
Government	1 100 000	1 755 889	159.6	(+655 889)
Beneficiaries	800 000	532 191	66.5	267 809
Total	19 322 895	18 303 044	94.7	1 019 851

Source: Project completion report, December 2014

103. Disbursement of funds. At completion, IFAD only disbursed 72.1 per cent of the IFAD loan. The lower level of IFAD disbursements is attributed to delays in flow of funds from IFAD due to: (i) the slow progress in implementing the poultry and marketing activities; (ii) a slow two-step procedure by which withdrawal applications were initially processed by ADB, then sent to IFAD headquarters for approval and replenishment; and (iii) the low ceiling of IFAD's account and sub-accounts, which necessitated frequent withdrawal applications.
104. For example, from 2009-2011 the total IFAD disbursements amounted to only US\$0.28 million, with no disbursements at all in 2009. These delays as well as the low disbursement rate of IFAD were reported in ADB and Government PCRs to have compromised project efficiency. Disbursements of ADB and SDC were undertaken without major problems. However, as noted earlier, disbursements under the ADB loan, ADF grant and SDC grant varied substantially from the appraisal estimates,

⁴⁷ The regional office was understaffed and had limited consultant support. Furthermore, contracts for the LWU were not finalized until January 2009, which delayed the start-up of CDD activities and the initial training in microfinance under the Enhancing Capacity of Local Government Agencies and LWU.

⁴⁸ Further, it might be that book-keeping and accounting under the project were perhaps not carried out rigorously. For example, training budget-head seems to overshoot under the loan account, but remained un-utilized under the grant financing. One would have thought that it would happen the other way around. It could also be responsible for showing a major deviation in the case of project supervision expenditure.

depending on the line item and the timing of its expenditure in the project cycle. Despite these impediments, as can be seen in table 6 above, the financiers disbursed 94.7 per cent of the total allocated funds.

105. Cost per beneficiary. Since fewer beneficiaries were reached at project completion (13,100 households) compared with the design estimate (17,000 households) and most of the available resources were spent, the cost per beneficiary household increased from US\$1,082 to US\$1,397. This increase is linked to the reduction in project activities and implementation period. In addition, the project spent a substantial amount of resources to furnish the provincial agriculture and forestry office (PAFO) and DAFO supporting CDD, extension services, LWU and eventually livestock development. During the field visit, some office buildings were reported to have been renovated with project financing, in accordance with the project design document. However, they were not allocated adequate resources at the design stage, even though supporting decentralization of rural development was identified as an important activity under IFAD's institutional development efforts.
106. Project management costs. At completion, project management accounted for 27.3 per cent of actual project cost (component 3). As mentioned earlier, this is a notable increase and much higher than the IFAD average of 10-15 per cent for project management costs. This increase is linked to the MTR's decision to expand the scope of the VIDF component due to high community demand, and escalation of material and construction costs.⁴⁹ Therefore, during the life of the project, civil works costs increased by about 40 per cent compared to the appraisal estimate. Another possible explanation for increased management costs seems to be the unrealistic initial cost estimates and inadequate provision of resources. The overall project cost on the other hand only increased slightly.

Table 7
Project cost at design and completion (US\$ million)

Item	Base Cost	Appraisal	%	Actual	%
A. Component 1	Enhance Village Livestock System	11.08	60.2	9.34	50
Component 2	Capacity Building for Community Driven Development	3.40	18.5	3.9	21.0
Component 3	Implementation Management	0.50	2.7	5.05	27.3
	Unallocated	0.80	4.3	0	0.0
	Subtotal (A)	16.50	89.7	18.29	98.7
B.	Contingencies	1.50	8.2		
C.	Financing charges during Implementation ^d	0.40	2.2	0.24	1.3
	Total (A+B+C)	18.40	100.0	18.53	100.0

^a Includes taxes and duties of US\$0.8; ^b In mid-2005 prices; ^c Physical contingencies computed at 5 per cent of base costs. Price contingencies computed at 1.6 per cent in 2006, 2.8 per cent for 2007, 1.2 per cent for 2008 and three years after on foreign exchange costs and 5 per cent on local currency costs in the next six years; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate; ^d Includes interest charges. Interest during construction has been computed at 1 per cent per annum (the ADF offered rate). Source: ADB. 2015. Completion Report: Northern Region Sustainable Livelihoods through Livestock Development Project in Lao People's Democratic Republic, pp. xiii. Manila.

⁴⁹ Given the strong demand, adjustments were made to the VIDF guidelines based on agreement at MTR, including (i) raising the VIDF ceiling per district from US\$70,000 to US\$130,000; (ii) raising the ceiling per village from US\$1,500 to US\$20,000; and (iii) allowing larger and more complex schemes using the services of qualified contractors to manage and supervise the construction, and employing paid village labour to the maximum. Despite all these changes, the initial allocation was not increased and ended up squeezing project activities. Instead, the available funds were allowed to go as far as they could. In this sense, project activities and the financing plan did not fully match each other.

107. Turnover of staff and consultants. The turnover of staff limited the project's implementation. This in particular affected the M&E system of the project and the capacity development activities for the LWU. The international firm supporting the VLF was particularly poor and effectively withdrew from the project before being replaced by a national firm, resulting in a 15-month delay.
108. Rating. Based on the discussed process efficiency issues and the relatively good economic performance (EIRR and FIRR), IOE rates efficiency as moderately satisfactory (4) and IED efficient.

Key points on relevance, effectiveness and efficiency

Relevance

- The project was relevant in terms of its alignment with the Lao country strategic opportunities programmes of IFAD, country strategy of ADB and key national policies, as well as relevant to the local context and the needs of the poor;
- The project's design was complex, covering numerous sub-sectors, which proved to be demanding for implementation and achievement of objectives. The project could have achieved enhanced results and impact if more attention had been devoted to synergies between the activities and the components, and if each component had had its own targeting strategy.

Effectiveness

- The project fostered greater awareness about using modern technology and was instrumental in supporting gender equity. While the project was strong on delivering outputs, it was weak on outcomes;
- The causal pathway of the two key objectives, enhanced village livestock systems and capacity development, was direct. This means that for both objectives the most significant outcomes came from outputs that directly contribute to outcomes. This included the provision of vaccinations, animals through the VLF, and small-scale infrastructures. However, most other outcomes requiring learning, changing practices and behaviours had minimal success. As such, the uptake on new practices and the establishment of viable LPGs and VLFs were limited;
- The absence of baseline data and unverifiable M&E data prevent an incontrovertible endorsement of the project's achievements. This was further limited by the project's focus on meeting output targets with little consideration for possible intermediate outcomes for tracking progress towards the intended objectives.

Efficiency

- In terms of process efficiency, there are a number of issues that could have been avoided (e.g. start-up problems), processed differently (shorter and quicker MTR) or clarified with the help of better data (baseline), book-keeping (accounting for expenditure) and rigorous M&E. These contributed to higher unit costs (per beneficiary) under the project;
- The financiers disbursed 94.7 per cent of the total allocated funds, and both EIRR and FIRR are broadly in accordance with the ex-ante estimates at the time of project design. These are conservative estimates, and real social benefits of the project are likely to have been higher.

Rural poverty impact

109. As discussed earlier, the assessment of both the attribution and contribution of the project's impact to the reduction of rural poverty is challenging. During the field visits, the evaluation team retrieved the project M&E database and made an attempt with the support of the M&E officer to clean up the data for key indicators, which are presented below.
110. Improvements in the income and assets of the beneficiaries. The RIMS surveys conducted in 2010 and 2013 indicate a decrease in the percentage of poor households from 51 per cent to 46 per cent. Similarly, project data show an increase in household income from US\$87 in 2008 to around US\$425 by 2013. FGDs conducted during the field mission confirm that most of the households in the

villages visited reported an increase in income and an improvement in the number and type of assets in the last 10 years. In fact, most of them own assets such as mobile phones, television and motorbikes.

111. As found during village-level interviews, five years after project completion most of the households continue to attribute the improvements in household income and assets to the increase in the number of animals, which is in turn due not only to the provision of animals but especially to the introduction of enhanced livestock management practices (and in particular vaccination) by the project, which added to the livestock's value and enhanced its potential for raising cash income when required. Furthermore, project beneficiaries reported a substantive decline in animal diseases and mortality rate compared to 10 years ago, along with an increase in meat demand and its prices. However, it is important to acknowledge that the increase in the number of animals is part of a larger trend and not limited to the project areas. With the overall growth in the country, it is challenging to attribute the impact on income and assets to the project. Thus, while the project has had a positive impact, it may not be the lone driver of the income gains.
112. Finally, the improvements in income and assets are also associated with the access to microfinance through the LWU in the rural areas. This led to small loans for small-scale livestock producers in the project area, which smoothed their consumption and increased personal savings in the past 10 years, as reported by project beneficiaries during the FGDs.
113. However, the evaluation identified several constraints to better and deeper impact on the ground. First, the livestock management, microfinance and community mobilization activities promoted by the project did not unfold in a complementary way and were not equally targeted at advancing the livestock systems. As a result, and as confirmed by the interviews in the field, overall investment in the small-scale livestock sector remains limited, and although exceeding its target, only a few households benefitted from better access to microfinance. As discussed under effectiveness, most of the loans were taken to purchase pigs and large ruminants. Very little was reinvested in cattle fattening and trading. There is no evidence of greater investments in technology by LPGs. Discussions with the members of the groups highlighted that this would have required the availability of bigger amounts of financial capital for livestock acquisition and management.
114. The flaws in the design of the microfinance component led to high default rates, which in a few villages visited was close to 50 per cent. The causes of the defaults are due to several factors. Farmers were not required to make periodic payments, with the consequence that payment issues only came to light after the payment was due. Also, loan maturity and livestock life cycle were not well aligned.⁵⁰ Some families have relocated in the last few years and this has led to disruptions in their loan repayment schedules. In other cases, animals died prematurely, causing economic losses which were difficult for the family to bear. Finally, in many instances, repayment was simply not seen as a priority by project beneficiaries, which indicates a lack of understanding of microfinance principles. LWU staff were making efforts to persuade borrowers to repay, but the closure of the project in 2014 resulted in a disruption of any incentives.
115. Finally, the linkages with the formal financial sector and private sector (through traders) along the livestock value chain were not supported. As mentioned earlier, the component on access to markets was dropped during MTR and this constrained feedback on productivity and on the income base of local communities. In 2013, markets and roads were still far away from project's remote villages (table 8). The field visits in the context of the joint evaluation found that the situation had not

⁵⁰ For instance, loans should be repaid within two years, while cattle take five years to mature and fetch good prices.

improved much in the last four years and in remote villages the commuting is generally on foot or with animals, or motorbikes.

Table 8
Access to roads and markets

<i>Province</i>	<i>Number of villages</i>	<i>Distance to road</i>	<i>Distance to nearest market</i>
Bokeo	4	2.3	5.8
Houaphanh	8	5.9	11.9
Luang Namtha	5	3.2	13.2
Luang Prabang	9	10.2	12.1
Xieng Khouang	4	6.5	16
All	30	6.34	11.91

Source: village level survey 2013.

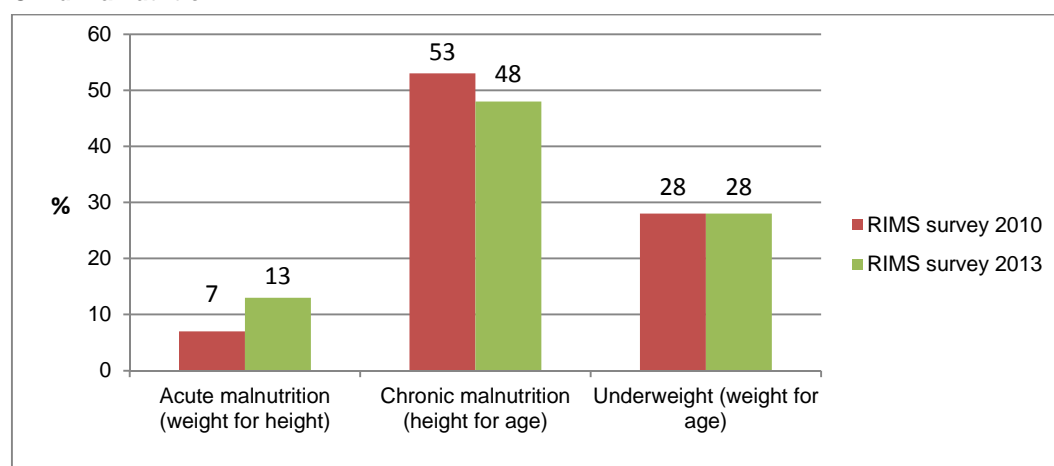
116. In sum, the evaluation acknowledges the improvements in income and assets. However, a more careful design of the microfinance component and more attention to markets and value chain development, as well as to the synergistic implementation of project activities, would have fostered greater impact.
117. The impact on human and social capital and empowerment has been moderate. However, it was affected by the inactivity of groups and sporadic training activities. The RIMS surveys found that approximately 80 to 90 per cent of households in the project area have access to safe water, while a majority (approximately 50-60 per cent) have access to sanitation facilities. According to the social impact assessment conducted in 2014,⁵¹ most of the households have used their additional income from livestock-selling for children's education and family welfare, which, inter alia, implied an increased educational attainment for the upland ethnic groups. The FGDs organized by the joint mission confirm the above results. Direct observations revealed that water and sanitation services in the villages visited were usually available at the communal outlets and were functional, generally clean, and well-maintained. Some households reported about the worsening of water scarcity especially during summer months, which affects the workload of women who fetch water.
118. In terms of community mobilization, interviews revealed that the project has not been able to engage and empower the poorest households adequately through LPG participation. In fact, the poorest households had less time available for group activities and have been less able to undertake the risks of intensified livestock production. Moreover, the assessment of impact on human and social capital empowerment confirms the findings highlighted in the effectiveness section as the LPGs are still largely seen as a vehicle to access rural credit and an opportunity to acquire skills, rather than as a means to create strong bonds within the community, share knowledge and instill a sense of ownership and responsibility of project results. Consequently, some LPGs are no longer functional. Overall, interviews with members of LPGs highlighted that the associations established with the support of the project lacked an appropriate long-term vision.
119. Quantitative data on the LPGs still functioning are not available. However, discussions in the field revealed that beneficiaries did not see the advantage of being members of the LPGs beyond the possibility of accessing small credit offered

⁵¹ Government of Lao People's Democratic Republic, Ministry of Agriculture and Forestry, Department of Livestock and Fisheries. 2014. *Completion Report: Northern Region Sustainable Livelihoods through Livestock Development Project*. Vientiane. Appendix 17.

by the project. As a result, some LPGs stopped functioning after project completion.

120. Both men and women who participated in the FGDs during the PPE mission acknowledged that they were trained in areas such as vaccination, animal feeding and husbandry, forage cultivation, microfinance, computerized accounting, goat raising, constructing animal shelters and chicken raising. Only women were trained on gender equity and non-violence.
121. However, these training programmes were sporadic activities which were not properly followed up. Trainees were exposed to the basic issues and rudimentary elements, but these trainings did not always add up to capacity-building on the ground uniformly, especially as many of the trainees lacked adequate education and skills to absorb new information. As mentioned under income and assets, the microfinance component was introduced with little or no preparation. Distribution of trainings across provinces and districts was also uneven. Some participants who had gone through the training programme could not even recall the subject they were trained in during the FGDs. In this sense, NRSLLP's training agenda was weak in enhancing the capacity of targeted communities, which is key to sustain the long-term transition from a peasant-oriented model to community farms and eventually commercial farms.
122. Beneficiaries reported an increase in agricultural production and improvements in food security at the household level. However, quantitative data in addition to the data from the RIMS survey reported below are not available to support the attribution of these benefits to the project. The joint evaluation included in the FGDs and semi-structured interviews with beneficiaries key questions on food security and agricultural productivity. The households interviewed did not report any recent hungry season. On the contrary, they stated that their agricultural production had increased and that they have enough food throughout the year. Moreover, no episodes of premature death among children were reported in any of the interviews conducted.
123. These qualitative findings partially resonate with the results of the 2013 RIMS survey, which measured three malnutrition indices: (i) chronic malnutrition; (ii) acute malnutrition; and (iii) being underweight relative to a child's age. The RIMS surveys showed a decline in the incidence of chronic malnutrition, from 52.9 per cent in 2010 to 48.4 per cent in 2013. At the same time, acute malnutrition rose sharply, from 7 per cent to 13 per cent. The share of underweight children remained unchanged (figure 3).

Figure 3
Child malnutrition



Source: IFAD. Results and Impact Management System

124. The project accompanied the decentralization process of the Government of Lao PDR and had a positive impact on provincial- and district-level institutions. The project has been sensitive to the process of decentralization and trained mid-level officials in provinces and districts. They benefitted from repeated opportunities to travel to provincial or national headquarters and learn from interactions with senior policymakers and colleagues. The project management office in Luang Prabang served as a platform for them to learn about the positive features of the project as well as its limitations. This cadre of trained officials could serve as building blocks for further capacity-building in the country for follow-up activities.
125. Unlike the top-down administration, horizontal collaboration among government organizations is somewhat new in Lao PDR, and the mechanisms for such collaboration are in its infancy and evolving. Even if the steering committees and coordination meetings within existing government institutions were held regularly, the project was unable to determine any impact on the qualitative performance or change in management skills and capacity, since no such indicators were specified in the logical framework. ADB review missions further noted that the overall management of the project was centralized in the regional office, with a limited role played by the lower-level offices, indicating weaknesses in coordination between the various institutional levels.
126. As mentioned in previous sections, the project was instrumental in highlighting the potential of livestock development as a pathway to the sustainable development of the remote northern regions. In collaboration with the inputs provided by the Office International des Epizooties (World Organisation for Animal Health) and Australian Centre for International Agricultural Research programmes, it has complemented the information available on disease incidence, which has improved Lao PDR's credibility on disease control.
127. Rating. IOE rates rural poverty impact as moderately satisfactory (4). This is a specific IOE criterion; therefore, IED concurs with the assessment but without providing a rating. The evaluation acknowledges as a key impact the contribution of the project to establishing a foothold for developing the smallholder-led livestock sector. The project also contributed to illustrating the potential comparative advantage of the country in developing the livestock sector. This advantage can be scaled up and there will be opportunities for project beneficiaries to be part of this growth in the near future. However, due to the limitations on data quality and availability, it is challenging to measure the impact of the project on rural poverty. Interviews in the field and the analysis of available data confirm that the impact is moderately satisfactory on income and assets, on human and social capital

empowerment and on capacity-building of local institutions established in the context of the decentralization process.

Key points on rural poverty impact

- Beyond the impact domains, the project was instrumental in highlighting the potential of livestock development as a pathway to the sustainable development of the remote northern regions, unveiling the comparative advantage of the country in the livestock sector – an advantage that can be scaled up, thus providing new opportunities for rural people to be part of this growth;
- The project accompanied the Government's decentralization process. It had a positive impact on provincial- and district-level institutions. The impact on income and assets and human and social capital and empowerment has been moderate;
- However, impact on the ground was constrained by the limited synergistic implementation of project activities, the flaws in the design of the microfinance and market components, the dismantling of livestock production groups, and sporadic training activities;
- Finally, the lack of reliable quantitative data makes any assessment of the project's contribution to the reduction of rural poverty challenging.

Sustainability of benefits

128. Technical sustainability. The visits to the project areas and FGDs with stakeholders during the evaluation mission revealed that most of the beneficiaries in targeted villages understand the need to vaccinate their livestock and confirm that greater awareness about livestock health technology in general and vaccination in particular seemed to be the single most important contribution of the project in upland areas. In most of the villages visited, livestock holders pay for the vaccination from their own pocket. The prospects for the sustainability of vaccination technology are reinforced by the fact that it was implemented not just in the project villages but promoted throughout the rural regions of Lao PDR.
129. A significant number of farmers have become more aware of the commercial demand for livestock, whether from domestic markets or abroad. It is expected that more farmers will choose to specialize in certain types of livestock production during the next few years as a response to increasing market demand for quality meat and meat products. Traders are now actively sourcing an increasing number of livestock from the upland ethnic communities.
130. However, the evaluation found that the sustainability of the project's direct interventions was weak for several reasons. First, the Government's support ended at completion⁵² and this affected the work of the extension officers, who lack the resources to travel to project areas. (At the moment, access to vaccinations is limited, as the vaccinations need to be provided by the extension agents, who do not regularly frequent the villages.) Private sector alternatives are limited by the insufficient number of veterinarians and lack of cold storage, partly due to the lack of incentives for private sector participation.
131. Second, operations of the VLF, with the significant issues of late or potential non-repayments and VLF lending terms and cost structure, are unlikely to be sustained unless the national and provincial governments agree to continue providing subsidies for LWU operational costs. To some extent, this was due to the nature of microfinance lending under the project and subsequent developments in the microfinance subsector in the country. In comparison to other sources of credit that

⁵² Although an interim budget was approved by the Government for carrying out project activities after project completion.

have opened up during the last few years, and which may be more conducive for livestock development, the amounts of credit disbursed under NRSLLDP were small in size, short in duration, and carried higher rates of interest. This caused discontent among the borrowers and was repeatedly brought up during PPE mission FGDs.

132. The MTR highlighted that the project design did not include a clear mechanism to ensure the sustainability of the VLF and no effective measures were taken to address this issue. In this regard, the follow-up project represents an opportunity to address the weaknesses of the credit component and adopt an appropriate term structure and rates of interest along with education and training on microfinance committees at village level. Along the same lines, the identification of a solid institution to implement the rural finance component will be key to the achievement of better results on the ground of the follow-up project. In this regard, the Bank of Lao, which is already engaged in promoting the development of a sustainable and market-oriented rural and microfinance sector, could be an interesting option.
133. Third, the level of adoption of new technologies, extensive provision of related logistics such as availability of vaccines and drugs, and improved practices for more intensive livestock management practices remains low. As mentioned, the introduction of forage to feed the animals proved to be unsustainable due to the lack of land and water. Likewise, with the decision to drop the marketing component, which represents a missed opportunity to build the capacity of the LPGs to provide group benefits for livestock production, there is limited basis for sustained movement towards commercialization without additional support. Therefore, strategies would need to be developed to ensure biosecurity and sustainability of livestock support to farmers beyond the project inputs and to prevent the farmers from reverting to low-input traditional livestock management practices.
134. Finally, there was little consideration for an exit strategy for project activities in the project design or during implementation, particularly for the CDD objectives to benefit the poorest. One could argue that the exit strategy has been revealed in the design of the follow-up project and the new emphasis on commercialization. The new project recognizes the market opportunities for livestock. Thus, it is moving away from an integrated approach with an emphasis on CDD to one based on livestock development. Its goals are to: (i) assist the farmers who have the most potential to commercialize; and (ii) ensure greater access to finance, extension and markets, which are needed for sustainability and had limited success under NRSLLDP. This approach might reduce the attention to "soft impacts" and pose a challenge to the targeting objectives of IFAD.
135. Social and institutional sustainability. It has been observed that many villagers are registered as LPG members solely to receive assistance and access to credit. Their view of LPGs as a collective institution to address common problems and to access markets on better terms was masked by availability of credit. Many LPGs are no longer functioning due to the cessation of extension services and microfinance activities. This situation emerged partly because the project did not provide adequate attention to smaller livestock such as poultry and goats. Households that could not afford cattle and buffalo would have benefitted from the provision of loans for smaller ruminants. This would have promoted a sense of community and contributed to more cohesive LPGs in the rural areas.
136. Environmental sustainability. The project gave little attention to the agro-ecological areas where it was implemented, even if this very much influenced the choice of livelihoods at the household level. Households' interest in pursuing livestock was closely linked to the availability of resources (terrain, cultivable land, water and slack family labour) in their area. Given that most farm households viewed livestock as a supplemental economic activity, its scale was limited even in

high uptake areas, and well integrated with other activities. As such, the project's impact on the environment has been minimal. However, if livestock development is scaled up in the future, and farmers look to become commercial, more attention must be given to environmental impacts. Water availability, particularly in the dry season, will be an increasing concern.

137. Rating. While the project managed to create a good level of awareness on livestock (health) techniques and the commercial demand for livestock, the project was less successful in reaching social and institutional sustainability. Moreover, the little attention to environmental issues and project exit strategy, the low adoption of new technologies and the flaws in sustaining the VLF contributed to IOE's rating of moderately unsatisfactory (3) and to an IED rating of less than likely sustainable.

Key points on sustainability of benefits

- The project introduced modern technology, especially vaccination, to control the risk associated with livestock disease and mortality. It is now widely accepted by the households holding livestock, and this adherence is likely to be sustainable, as most of the users are willing to pay for vaccinations, provided that supplies are readily available;
- Continued access to credit and its reinvestment is critical for sustainability of project benefits (and to discourage defaulting payments), which is currently doubtful;
- Furthermore, livestock extension support has either ceased or is rapidly slowing down. At the moment, it is threatened, as field functionaries do not have adequate means for traveling and meeting their daily allowances.

B. Other performance criteria

Innovation

138. As mentioned under relevance, several relevant production and livestock management technologies were introduced at design, including vaccination, penning of livestock, feed preparation, and animal health care. These practices had varying degrees of success, with vaccinations being particularly successful.
139. However, the project design did not clearly map the transition pathways of these technologies, describing their expansion in quantities and over time. The project approach to moving beyond the peasant system towards more intensive livestock production, while not achieved fully, offers insights into how to expand, starting with the introduction of good practices and low-cost inputs. These initial steps can be better linked with further intensification and livestock value chain development.
140. The CDD and livestock development approaches needed to be better coordinated with each other. The CDD approach was centred on broader livelihood and community development, which was not always aligned with promoting livestock development, particularly in villages with other economic priorities (i.e. crop-based activities). The CDD component was also under-resourced. As a result, the innovative initiatives to improve the livestock systems did not fully materialize to a level necessary for full replication and scaling up, as detailed in the next section.
141. Rating. IOE rates innovation as moderately unsatisfactory (3). IED concurs with this assessment; however it does not rate this criterion.⁵³

Scaling up

142. IFAD and ADB, through NRSLDP, deserve credit for continued work in the sector and with a vision to improve livestock production. Together with the Government, IFAD and ADB recognized the potential for livestock development and have made it a priority. In particular, the Government is clearly positioning livestock

⁵³ Innovations are assessed by IED under relevance.

development as a priority. Contributing to this and building on the NRSLDLP, ADB has approved a follow-up project – NSLCP⁵⁴ – which focuses on livestock development and commercialization.

143. IFAD is directly financing the credit component (the Rural Financial Services Program) of the new project (NSLCP-RFSP). In addition to continuing the initiatives to strengthen livestock production, the new project focuses on the livestock value chain and the involvement of private sector actors. Box 1 summarizes the key features of the NSLCP.

Box 1

Northern Smallholders Livestock Commercial Project

After the Northern Region Sustainable Livelihoods through Livestock Development Project (NRSLDLP) was completed, ADB approved a follow-up project (Northern Smallholder Livestock Commercialization Project, or NSLCP) in November 2014. The project focused on 12 districts of the upland provinces of Houaphanh, Luang Namtha, Luang Prabang and Xiengkhouang. All four provinces were also covered under the previous project.

Project outcome and outputs. The objective of NSLCP is to improve selected livestock value chain segments and bring Lao PDR livestock development activities to the level of recognized industry standards in terms of livestock production, live animal handling, slaughtering, processing and vending. Building on the earlier experience, the expectation is that the livestock and meat production will be put on a sustainable growth pathway in the country. The project will disseminate technical and business knowledge and skills, credit and regulatory reforms, and envisages the following substantive outputs: (i) capacities of smallholders and other LVC actors strengthened; (ii) livestock value chain infrastructure strengthened; and (iii) capacity to access credit improved. In addition, enhanced project management is expected during implementation.

Project components. The project comprises four components: (i) smallholder and other value chain stakeholders strengthened (US\$10.4 million); (ii) livestock value chain infrastructure strengthened (US\$5.3 million); (iii) capacity to access credit improved (US\$5.3 million); and (iv) project management enhanced (US\$6.7 million).

Contingencies were provided in the amount of US\$3.0 million. Financing charges during implementation were estimated at US\$0.8 million.

Project cost, grant and co-financing. The project's total cost is estimated at US\$31.5 million. ADB provided a loan for US\$21.0 million from its special fund resources. IFAD contributed loan financing for US\$5.0 million and grant financing for another US\$5.0 million. The Government's contribution was estimated at US\$0.5 million. IFAD agreed to finance provincial and district costs for: the credit component; vehicles; and service contracts for LVC capacity and policy, farmer, and LVC training. IFAD is to administer its own contribution, which was to be available from 2016.

144. According to IFAD's definition, scaling up is the extent to which IFAD development interventions have been (or are likely to be) scaled up by government authorities, donor organizations, the private sector and others agencies. As shown in table 9, the total cost of the new project is almost double that of NRSLDLP, and the percentage increase of the contribution to NSLCP-RFSP from the Government is higher than IFAD's. This further confirms the commitment of the Government towards the development of the sector.
145. NRSLDLP did not have any influence on sectoral policies. In this regard the follow-up project offers perspectives to reinvigorate dialogue with the Government to promote the sustainable development of the sector.

⁵⁴ ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loan for the Northern Smallholder Livestock Commercialization Project in the Lao People's Democratic Republic*. Manila.

Table 9
Overview of contributions at design

<i>Project</i>	<i>IFAD contribution (millions)</i>	<i>Government contribution (millions)</i>	<i>ADB contribution (millions)</i>	<i>Bilateral development partner contribution (millions)</i>	<i>Beneficiary contribution (millions)</i>	<i>Total project cost (millions)</i>
NRSLLDP	US\$ 3.0	US\$ 1.1	US\$ 9.3 loan US\$ 0.7 grant	US\$ 3.5	US\$ 0.8	US\$ 18.4
NSLCP	(see below)	0.5	21	-	-	31.5
NSLCP- RFSP	US\$ 10.0	US\$ 4.34	US\$ 2.9	US\$ 1.9	US\$ 0.6	US\$ 19.7

Source: IFAD loans and grants administration and ADB project documents.

146. Rating. IOE rates scaling up as moderately satisfactory (4). IED concurs with this assessment; however it does not rate this criterion.

Gender equality and women's empowerment

147. The project had a Gender Action Plan (GAP), which set targets to ensure equitable involvement of women in trainings, community groups and livestock ownership. According to the PCRs, the GAP was implemented successfully and had a positive impact on the lives of women in the project area. Women participated in village-based LPGs, received livestock extension training, had access to loans from the VLF and received gender training. Although there are a few gaps, the project has largely achieved its target in gender equality and women's empowerment. Key results are discussed in the paragraphs that follow.
148. The LPGs were mixed groups with men and women members. Out of 13,100 LPG household members, 12,301 members (94 per cent) were registered under both husband and wife. In addition, 367 were women members (single mothers or women) and 432 were men members (single fathers or men). Thirty per cent of the leaders for poultry groups were women. In addition, 64 per cent of the women received gender training and 6,738 (93 per cent) of the 7,270 participants in small livestock training programmes were women.
149. The trainings were conducted for all members and did not involve women-only groups. Nonetheless, participation by gender varied depending on the type of livestock. Men were the main participants in large ruminant LPGs, whereas women were most active in the goat and poultry groups, and in training for pig-feed preparation. While the project trained both men and women as village poultry extension workers, most were women.
150. Women's participation in the LPGs led to networking and knowledge-sharing with other women in the village, which helped build confidence among women in taking care of livestock. A total of 9,519 availed themselves of loans under the project, of whom 9,299 members (or 97 per cent) were registered under the names of husband and wife (50 per cent men and 50 per cent women) and 203, below the target of 300, registered under the names of women (female heads of household or single women). Traditionally, ethnic women are not much involved in public activities in the villages. In this respect, the project triggered a process of change in women's participation which is still visible today. In fact, women members participated actively in the project activities and were often better informed about livestock development issues than the men who were present in the FGD meetings.
151. To improve their standard of living, the project sought to plant forages and feed crops like cassava, in order to reduce the amount of time women spent daily in collecting and preparing pig feed. M&E data indicated that at the end of the project, women spent less than 1.2 hours a day collecting and preparing pig feed, as compared to more than two hours in 2005. At the same time, as also confirmed by

the FGDs, the time devoted to animal care by both women and men rose in those households that engage in commercialized livestock-rearing as a major source of income. Women still travel up to 4 to 6 kilometers to fetch water for daily use, thus spending a significant amount of time and effort in this endeavour. Because of this, the ADB PCR noted that a more relevant indicator of women's time used should have measured income earned per hour, rather than time input alone.⁵⁵

152. During the interviews with women groups, they did not report any episode of intra-household violence in the past five to ten years. Husbands and wives take decisions together on the education of the children and on family expenditures.
153. At the same time, a few GAP targets were not fully achieved. Although the project met its target of recruiting women into the livestock extension service, it was difficult to find ethnic women with adequate language and technical knowledge of agriculture. At completion, 35 per cent of the DAFO extension workers were women, which met the revised target and constituted an increase over pre-project levels, but was less than the appraisal target of 50 per cent. Twenty per cent of women were on the village loan committee.
154. Rating. The GAP was implemented successfully and the project triggered a process of change in women's participation and a positive impact on the lives of women in the project area. At the same time, as described above, a few GAP targets were not fully achieved and women still have to walk a fair distance to fetch water. All in all, therefore, IOE rates gender equality and women's empowerment as moderately satisfactory (4). IED concurs with this assessment; however it does not provide a specific rating to this criterion.

Environment and natural resources management

155. An initial environmental examination, which was conducted based on ADB safeguard policies, assessed both cumulative and direct effects, and identified no potential significant adverse impacts on the environment. Based on the assessment, an environmental management plan (EMP) was prepared to mitigate any potential negative effects and included: (i) land-use management and forest encroachment; (ii) hygiene and environmental health; and (iii) small-scale civil works.
156. However, the EMP was not reflected in the project's implementation plan, nor was it systematically discussed in the progress reports. Hence, there was no active monitoring and recording of environmental impacts and or compliance with environmental safeguards at the district and village levels.
157. That said, there has been no major environmental damage or impact reported during project implementation. The project trainings promoted livestock effluent disposal and discouraged the use of chemicals. Appropriate land-use planning and management decisions have determined the locations and areas allocated for the establishment of forage, and the protected areas have been respected. Furthermore, soil conditions have been improved through the planting of forages and legumes, and soil erosion has been reduced. There were notable improvements in village hygiene from the fencing and confinement of animals. In a number of villages, slash-and-burn practice has been eliminated, leading to improvements in the area. All infrastructure development involved prior consultation and approval by the District Natural Resources and Environment departments.⁵⁶

⁵⁵ ADB. 2015. *Completion Report: Northern Region Sustainable Livelihoods through Livestock Development Project in Lao People's Democratic Republic*. Manila.

⁵⁶ Government of Lao People's Democratic Republic, Ministry of Agriculture and Forestry, Department of Livestock and Fisheries. 2014. *Completion Report: Northern Region Sustainable Livelihoods through Livestock Development Project*. Vientiane, para. 259–260.

158. Although livestock vaccination has been a successful initiative, there are still some biosecurity concerns. Apart from the vaccinations, there are no consistent logistical procedures in place (e.g. restricted movement of animals, purchase through disease-free certification or quarantine facilities) to prevent the potential spread of diseases. These are important measures to preserve the biosecurity and mitigate the risks of infection and spread of diseases. Poultry is particularly vulnerable, as the vaccination programme was not effective.
159. In addition, experience in other Asian countries has shown that once goat density in an area reaches high levels, significant problems can arise in terms of animal health and production (e.g. increased mortality of young goats), environmental damage through overgrazing and social conflicts (e.g. damage to crops). The project has not instituted measures to address these potential risks.
160. Rating. IOE rates environment and natural resources management as moderately satisfactory (4). IED concurs with this assessment; however it does not provide a rating for this criterion.

Adaptation to climate change

161. This evaluation criterion concerns the contribution of the project to increase climate resilience and beneficiaries' capacity to manage short- and long-term climate risks. The project did not specifically contribute to this objective. As a consequence, this criterion is not rated by IOE or IED.

Key points on other evaluation criteria

- The project introduced livestock management practices which had a varying degree of success (e.g. vaccinations and forage);
- The CDD and livestock development approaches were not well coordinated with each other and the CDD component was also under-resourced. As a result, the innovative initiatives to improve the livestock systems did not fully materialize to a level necessary for full replication and scaling up;
- ADB has approved a follow-up project (NSLCP) which focuses on livestock development and commercialization. IFAD is directly financing the credit component of the new project;
- The total project cost was almost double that of NRSLLDP, and the Government funding is higher than in the previous phase. The follow up project offers an opportunity to engage in policy dialogue and influence sectoral policies;
- The project had a GAP which set targets to ensure equitable involvement of women in trainings, community groups and livestock ownership. The GAP was implemented successfully and the project triggered a process of change in women's participation and a positive impact on the lives of women in the project area;
- At the same time, a few GAP targets were not fully achieved and women still have to walk a fair distance to fetch water. Moreover, the time devoted to animal care by both women and men rose in those households that engage in commercialized livestock rearing as a major source of income;
- The project prepared an EMP to mitigate any potential negative effects. However, there was no active monitoring and recording of environmental impacts or compliance with environmental safeguards at the district and village levels;
- That said, there has been no major environmental damage or impact reported during project implementation. There were notable improvements at the villages level including improved village hygiene, improved soil conditions, reduced use of chemicals and the reduction of slash-and-burn practices. There are still some biosecurity concerns, and the poultry sector is particularly vulnerable.

C. Overall project achievement

162. The overall achievement of the project is a combined assessment of relevance, effectiveness, efficiency, rural poverty impact, sustainability of benefits, gender

equality and women's empowerment, innovation and scaling up, environment and natural resources management, and adaptation to climate change. This criterion corresponds to IED's development impact criterion, which is based on the assessment of relevance, effectiveness, efficiency and sustainability.

163. The project was instrumental in highlighting the potential of livestock development as a pathway to the sustainable development of the remote northern regions, unveiling the comparative advantage of the country in the livestock sector – an advantage that can be scaled up, thus providing new opportunities for rural people to be an active engine of growth. The project fostered greater awareness about using modern technology, especially vaccination, and improved tending of livestock in-house or through penning and provision of shelters. It was instrumental in supporting gender equity and encouraged better participation of women in economic development. It accompanied the decentralization process of the Government of Lao PDR and had a positive impact on provincial- and district-level institutions.
164. Yet overall project achievements are lower than expectations at appraisal. Impact on the ground was constrained by several factors such as the weak synergy of project activities during implementation and the flaws in the design of the microfinance and market components. Moreover, the impact on human and social capital and empowerment has been moderate and affected by the dismantling of LPGs and sporadic training activities, which affected the long-term transition from a peasant-oriented model to community farms and eventually commercial farms.
165. In sum, while the project was successful at the output level, the achievement of outcomes requiring learning, changing practices and behaviours was not fully met. As such, the uptake on new practices and the establishment of viable LPGs and VLFs is limited. In addition, the absence of reliable data and M&E systems makes any assessment of results and impact challenging.
166. Rating. IOE rates the project's overall achievement as moderately satisfactory (4). IED rates the overall performance less than satisfactory.

D. Performance of partners

IFAD

167. IFAD was actively involved throughout the project cycle from design until completion. IFAD staff participated in the design mission, regular supervision missions and joint review missions after the MTR in 2010. Nonetheless, the quality and frequency of supervision are rated as unsatisfactory (2) in all project status reports produced between 2008 and 2014.
168. IFAD's collaboration with the Government has been good and the country office has helped in raising IFAD's engagement. IFAD was particularly appreciated by its partners for mobilizing an IFAD livestock expert (an area in which other partners did not have expertise), its technical expertise in other areas (e.g. integrated pest control, its approach to rural finance) and its long history of working with beneficiary organizations.
169. While IFAD worked closely with the Government and ADB to focus more on targeting, the activities related to the poultry or small livestock component were poorly executed and did not reach their target and target groups effectively. IFAD could have played a more active role in ensuring that this component was better implemented among the poorest and vulnerable target groups. Instead, it was largely ignored in the supervision missions. Given IFAD's broader experience in rural and agricultural development, more attention could have been devoted to the implementation of a differentiated targeting approach, given the diversity in geographic areas and ethnic groups.
170. Various project documents highlight the low and delayed disbursements from the IFAD loan, which is cited as one of the reasons for the significant delays in settling

contractors' claims for completed village infrastructure works and slower project implementation progress. This was one of the reasons that the project was flagged as an "actual problem" between 2008 and 2009, and a "potential problem" between 2010 and 2012.

171. For the NRSLDLP, IFAD conducted a number of studies. For example, following a request from the Government, IFAD supported a mission to document best practices of the project in January 2013. Subsequently, IFAD submitted a report containing: (i) lessons learned; (ii) an assessment of livestock value chains in Northern Lao PDR; and (iii) an assessment of trends and opportunities in the future. It also published a detailed social impact assessment in March 2014.
172. Rating. In light of the above analysis, IOE rates IFAD's performance as a partner as moderately satisfactory (4). IED rates IFAD's performance as satisfactory.

Asian Development Bank

173. Like IFAD, ADB has provided consistent project implementation support through regular supervision missions and an MTR in 2010. From 2007 to 2014, ADB fielded 16 review missions, including nine from March 2007 to March 2010, which reflected a high level of assistance to the then slow-moving project. ADB provided consultant support during 2008 when the regional office's weak capacity in accounting and procurement became apparent. In late 2009, ADB's headquarters-based project officer retired and a new project officer was not immediately assigned in her place. The loss of continuity was a setback but was soon rectified by the hands-on involvement of headquarters-based project administration unit and close attention by staff after it became apparent that a loan extension would be needed if the project was to achieve its goals. However, ADB held off on agreeing to a loan extension until progress had accelerated. By mid-2011, good progress was being made and the regional office was advised by ADB to complete a revision of the implementation plan, with a view to a 15-month extension. The extension was approved in 11 June 2012, and the Lao resident mission administered the project closely thereafter. ADB Resident Mission staff worked closely with the local offices of IFAD and SDC to expedite project's implementation.
174. Rating. In light of the above analysis, IED rates ADB's performance as satisfactory. IOE rates ADB's performance as a partner as moderately satisfactory (4).

IFAD and ADB partnership

175. Overall, the IFAD/ADB partnership was good. It added value to the project and was highly appreciated by the Government. The strength of the partnership was (and is) driven by the complementarities of the two institutions: ADB in rural infrastructure and IFAD in agricultural, rural and community-based development.
176. Both IFAD and ADB administered the project from Vientiane. In 2010 ADB delegated administration of the project to the ADB Laos Resident Mission, and the IFAD country programme manager (CPM) was out-posted. Having both institutions represented in Vientiane greatly strengthened their partnership and collaboration.
177. However, over the project period IFAD had a turnover of CPMs, and responsibilities for Lao PDR shifted to the Viet Nam hub ICO; changes that the Government did not favour. Overall, there is room to further improve coordination between the two institutions and the Government in developing a long-term strategy for the livestock sector. Joint efforts would be highly beneficial at the design stage and in conducting supervision missions combining expertise from IFAD and ADB. However, it seems that the design of the follow-up project was done largely independently by ADB and IFAD and that the process is becoming less harmonized and coordinated (e.g. different start and end years of separate loans for the next project).

Government

178. The Government of Lao PDR showed strong ownership of the project and actively participated in all supervision missions. The Government provided relevant and timely support to project implementation. However, the horizontal collaboration among government agencies was not always smooth during implementation and this constrained greater development effectiveness.
179. Project management. In managing the project, the regional office established monthly reporting lines from each of the provincial implementation units and district implementation units. Quarterly plans for each District were prepared and used as a basis for monitoring project progress. The PCR mentions that the Project Steering Committee met regularly as planned with 12 semi-annual meetings.
180. Monitoring and evaluation. As already noted, the project M&E system was set up with considerable delay. An international M&E consultant worked briefly in late 2009 before resigning for personal reasons. There was no further progress until new M&E consultants were mobilized in early 2010. The first RIMS survey was completed in October 2010, far too late to provide a meaningful baseline, even if it had collected relevant information. At the time of the MTR in November 2010 (more than four years after project approval), there was no reliable information on the project's physical progress. The complexity of the project's economic and social objectives and the weak capacity in M&E, data collection and data entry processes heavily affected the M&E system of the project. The database reviewed by the joint PPE contains an impressive amount of information. However, the data were never analysed beyond simple tabulations, and even the latter were not been done in a systematic manner to provide reliable, quality and usable data. The result is an intricate net of numerous interrelated files in Lao which made it very challenging for the evaluation team to use the data. The PPE field visits also found inconsistencies in data presented in the project performance management system and those relating to the actual activities implemented in the field.
181. Fiduciary aspects. The Government carried out the statutory requirements in line with the loan agreement. The supervision mission reports indicated that the finance and accounting function of the project was well established and in accordance with the appropriate standards. This is, among other factors, due to the considerable effort that was made to train the accounting staff at the regional office and within the provinces. On the other hand, internal control procedures were found to be poor or absent in the line agencies.
182. Furthermore, the issued internal and external audit reports were not always up to acceptable standards – even if the seven audit reports that were prepared were submitted on time. Procurement and consultant recruitment was executed using ADB's Guidelines.
183. Rating. IOE rates the performance of the Government as a partner as moderately satisfactory (4). IED provides a rating of satisfactory.

E. Assessment of the quality of the project completion report

184. Scope. The PPE reviewed two PCRs, one prepared by ADB and the other by the Government. Both PCRs cover most of the evaluation criteria, although with different detail and depth (see quality section). Structure-wise, the ADB PCR adhered more to the guidelines than the Government PCR. Certain evaluation criteria were not sufficiently discussed in the PCRs, such as innovation, scaling up and the performance of partners, particularly IFAD, where these are required. Such information could have provided a holistic assessment of the project's initiatives. The overall scope of the PCR for NRSLDLP is rated as moderately satisfactory (4).
185. Quality. The PCRs suffered from the M&E shortcomings and therefore often lack supporting data or contain conflicting data, which made it difficult to draw conclusions. The financial data are also not consistent between the PCRs, probably

because the ADB PCR is prepared about a year after the Government PCR. Moreover, the economic analysis of the project can only be found in the ADB PCR.

186. Even though the PCRs are both very informative and detailed, due to the aforementioned data issues, they do not provide sufficient analytical depth to fully understand and assess important evaluation indicators such as effectiveness and rural poverty impact.
187. In terms of length, The ADB PCR main body is relatively short (15 pages) but follows a clear chapter structure. The various subjects and evaluation criteria are all discussed in their respective sections. The Government PCR's main body, at 71 pages, exceed the prescribed IFAD guidelines of between 19 and 26 pages. A more concise analysis would have conveyed the findings more efficiently and effectively to the target audience and would have allowed a better synergy with the ADB PCR. Considering the above factors, the PPE assigns a quality rating of moderately unsatisfactory (3).
188. Lessons. Both PCRs for NRSLLDP present many useful and informative lessons on the project and recommendations for the improvement of similar projects in the future. However, the evaluation noted that the lessons and recommendations included in the two PCRs vary in both quantity and detail (e.g. no lesson on M&E in the ADB PCR) and could have been more equally covered in both documents. Considering the above, the evaluation rates the lessons section of the PCRs as satisfactory (5).
189. Candour. Even though the evaluation finds that some sections somewhat over-emphasize the achievement of results on the ground, project issues are treated transparently and candidly, and both positive and negative lessons are illustrated. Overall, the evaluation assigns a candour rating of moderately satisfactory (4) to the PCRs.

VI. Lessons from the joint evaluation

190. There are a number of lessons for the follow-up Northern Smallholders Livestock Commercial Project. The follow-up project continues support for livestock development. While the NRSLLDP meandered between livestock development and CDD, the new project is focused on livestock development and commercialization. As such, the following lessons aim to support and guide this approach.
191. The transition to commercial agriculture implies extensive training and empowerment of smallholder farmers. The NRSLLDP aimed to provide farmers with animals to integrate with their existing semi-subsistence livelihoods. These additional animals were stores of wealth that were sold occasionally to smooth consumption (e.g. school fees) or support other investments (e.g. motorbikes). With a commercialized approach, the focus is on maximizing a stream of income over a sustained period. This requires substantial changes in the production, marketing, selling and reinvesting cycle. Compared to the NRSLLDP extension, this will require much more intense and regular training.
192. Livestock producer groups can be a conduit to share experiences, exchange knowledge and gain access to inputs and improved market opportunities and prices. Unfortunately, NRSLLDP was rather short-sighted and did not seek to develop groups to access or provide benefits to farmers throughout the production chain from inputs, to better husbandry practices through to selling. NRSLLDP also dropped the marketing component. As such, these organizations will need to be developed and empowered to engage with a range of stakeholders across the value chain. Natural partners for this will be government extensionists, research centres, veterinarians, market centres and the private sector.
193. Sustainable access to savings and credit is an essential input. In the future, savings and credit instruments should be designed around actual farmer needs in terms of timing, amount, duration and clear repayment and collateral requirements. A key decision for IFAD, ADB and the Government will be to agree on an appropriate partner, for example the Bank of Laos, to implement the rural finance component of the NSLCP transparently and professionally.
194. The move of smallholder farmers towards commercialization requires tailored infrastructure. NRSLLDP funded the construction of provincial and district buildings as well as local infrastructure. The village infrastructure fund supported the CDD aspects of the project. As such it often built infrastructure such as village meeting halls. For livestock development and commercialization, it is important for new infrastructure to directly address impediments such as access to water, animal shelters, medicinal supplies, cold-chain, access roads and market infrastructure.

VII. Conclusions and recommendations

F. Conclusions

195. This is the first joint evaluation conducted by IOE and IED. This exercise was important for mutual capacity-building and learning among IOE, IED and in-country partners. IOE and IED learned from each other by sharing their experience in conducting evaluations and respective methodologies and approaches. Moreover, the joint evaluation enabled the participation of national authorities throughout the process through ECD activities in Lao PDR jointly organized and implemented by IOE and IED. Both IOE and IED acknowledge and concur on the usefulness of this joint exercise and the fact that its learning component outweighs the challenges of conducting it. The conclusions of the joint evaluation are presented in the following paragraphs.
196. The project was timely and unveiled livestock development as a pathway to improve the rural livelihoods in the hilly regions of LAO PDR. The project coincided with significant increases in demand for animal products from a rapidly growing domestic economy and proximity to large external markets. Correspondingly, the Government has increased its promotion of livestock development as an economic driver of poverty reduction and more inclusive growth.
197. The project directly contributed to the increase in vaccinations of livestock and the promotion of livestock development. The project fostered greater awareness about using modern technology, especially vaccination, and improved tending of livestock through penning and provision of shelters. It was instrumental in supporting gender equity and encouraged better participation of women in economic development. It accompanied the decentralization process of the Government and had a positive impact on provincial- and district-level institutions.
198. While the project was successful at the output level, it did not reach the poorest and did not achieve outcomes requiring learning, changing practices and behaviours, thus constraining effectiveness, deeper impact on the ground and sustainability of benefits. There are several reasons for this, which are discussed in the following paragraphs.
199. The evaluation highlighted that the targeting approach was not sufficiently tailored to the context and needs of targeted communities so as to reach the poorest and foster greater effectiveness and impact. In this respect, more efforts are needed to reconcile IFAD's targeting objectives (poor and remote rural communities) with the quest for commercialization and value chain development. The follow-up project could be the opportunity to address these issues.
200. The over-ambitious project design made it difficult to achieve project objectives. The project design underestimated the overall limited technical abilities of farmers and the weak institutional capacity and the inputs and level of effort needed to instil lasting progress. This was further exacerbated by project delays, which reduced the time for building capacity, empowering LPGs and strengthening institutions.
201. The project objectives, targeting approach, and human and financial resources available for project implementation were not sufficiently aligned. Although women and ethnic minorities with low capacity were identified for trainings, language barriers and the limited number of follow-up trainings constrained the internalization and uptake of new practices. Project benefits accrued largely to better-off farmers and those with prior livestock experience. In this respect, more efforts are needed to reconcile IFAD's targeting objectives (poor and remote rural communities) with the quest for commercialization and value chain development.

202. The complexity of design, intended to achieve the multiple objectives of livestock development, CDD and decentralization, also impinged on the synergies between livestock development and support to livelihoods. As a result, the livestock management, microfinance and community mobilization activities promoted by the project did not unfold in a complementary way and were not equally targeted at advancing the livestock systems or CDD. Overall investments in the small-scale livestock sector remained limited, and only a few households benefitted from better access to microfinance.
203. Access to the VLF was in high demand for purchasing livestock, as credit was a limiting factor in expanding livestock production. However, the potential impact and sustainability of the VLF is limited due to weaknesses in its design and implementation. The LWU had limited capacity to implement and supervise the VLF and did not always follow good practices for VLF implementation. Further, the VLF structure and lending modalities were more suited to support CDD objectives (e.g. through the formation of community-based groups) rather than livestock development. Credit, which is essential for moving from backyard to commercial production, was clearly a limiting factor in expanding livestock production. In this regard, the identification of a solid institution to take on the rural finance component in the follow-up project will be critical to ensure sustainable financial services and access to markets.
204. The village infrastructure was used mostly to support CDD objectives rather than livestock development. Village halls, schools, water supply and toilets were the primary facilities built under the project. The project also provided small reservoirs and transport-related infrastructure (bridges and culverts). However, for livestock development and ADB's traditional focus on infrastructure, more market access-related infrastructure could have been expected.
205. The sustained development of the sector and its transition from a peasant-oriented model to community farms and eventually commercial farms is a long-term process which requires substantial changes in the production, marketing, selling and reinvesting cycle. This in turn entails more regular and extensive training and empowerment of smallholder farmers, which did not take place with the extension service provided by NRSLLDP.
206. Moreover, NRSLLDP was not successful in creating strong bonds within the communities and did not seek to develop groups to access or provide benefits to farmers throughout the production chain from inputs, to better husbandry practices, through to selling. The potential of the livestock producer groups as a conduit to share experiences, exchange knowledge and gain access to inputs and improved market opportunities and prices remains unexplored.
207. Finally, the commercialization of the sector also entails the pursuit of a sustained partnership among IFAD, ADB and the Government to provide long-term effective support to the value chain. This will be needed especially if smallholder farmers are expected to be a significant part of the sector's development.

G. Recommendations

208. In view of the follow-up project and based on key findings, the PPE proposes the following recommendations:
209. Recommendation 1: A more explicit and tailored targeting approach is required to support commercialization and the sustainable development of the livestock sector. The heterogeneity of the target group and the agro-ecological diversity in the NRSLLDP meant that many farmers, particularly from the poorest ethnic groups, were unable or did not have an interest in significantly increasing their livestock production. Therefore, the new project should develop a targeting strategy to guarantee that the poorest benefit from project activities towards the transition to livestock commercialization. This could be done, for

example, by ensuring the inclusion of activities related to poultry and small animals.

210. Recommendation 2: Moving towards commercialization entails the tailoring of activities to the context and needs of the poor who have the potential to scale up livestock development. In particular:
- (ii) IFAD should design appropriate financing instruments for livelihoods in terms of duration, amount, savings options and clear repayment and collateral requirements, to orient the investments in the sector and support access to markets;
 - (iii) ADB should support the establishment of market-oriented rural infrastructure to effectively access sectoral inputs and markets;
 - (iv) Similar projects must start with training for good practices in nutrition, confinement, and animal health; such training paves the way for more sophisticated practices related to breeding, commercial inputs, and improved efficiency and marketing.
211. Recommendation 3: IFAD, ADB and the Government should plan for sustained partnership and support of the Government's sector development strategy. Given the limited development of the sector, progress made to date and general weak capacity, the elaboration and implementation of a longer-term strategy agreed by key partners is essential for sustained benefits and real scaling-up of results by other development partners, the private sector and the Government itself. A phased approach should already be considered, including using complementary instruments and partners to assist with policy, regulatory and institutional requirements. The establishment of partnerships with private sector actors should be established to boost the linkages with producer groups and ensure that smallholders access additional knowledge, cheaper inputs and better prices.
212. Recommendation 4: IED and IOE should continue to conduct joint evaluations whenever possible. Both IOE and IED acknowledge and concur on the usefulness of conducting joint evaluations and the fact that the learning component attached to this type of exercise outweighs the challenges of conducting it. In order to maximize the learning and knowledge-sharing benefits, future joint evaluations at the project level should continue to be conducted in conjunction with in-country ECD activities. Moreover, IOE and IED should explore opportunities for the joint implementation of higher-level evaluations such as synthesis reports by IOE or sector evaluation reports by IED. If a joint exercise is not deemed possible, opportunities for mutual interaction and knowledge-sharing should be explored whenever appropriate through specific inputs and/or peer review of evaluation approach papers and final reports.

Basic project data

			Approval (US\$ m)		Actual (US\$ m)	
Region	APR	Total project costs	19.3		18.3	
Country	Lao People's Democratic Republic	IFAD loan	3.1	16.06%	2.2	12.02%
		ADB loan	9.6	49.74%	9.4	51.37%
Loan number	ADB loan: IFAD loan: 711-LA	ADF grant	0.7	3.63%	0.6	3.28%
Type of project (subsector)	Agricultural Development	Borrower	1.1	5.70%	1.8	9.84%
Financing type	IFAD loan ADB loan & grant	JFPR grant	0.5	2.59%	0.4	2.19%
Lending terms	Highly concessional	SDC grant	3.5	18.13%	3.4	18.58%
Date of approval	ADB: Sept 2006 IFAD: Dec 2006	Beneficiaries	0.8	4.15%	0.5	2.73%
Date of loan signature	ADB: Jan 2007 IFAD: Jan 2007					
Date of effectiveness	ADB: June 2007 IFAD:					
Loan amendments		Number of beneficiaries: (if appropriate, specify if direct or indirect)	Direct: 17,000 Households Indirect: N/A		Total: 13,100 Households	
Loan closure extensions	ADB: 19 month extension IFAD: 14 month extension					
Country programme managers	Current: Thomas Rath Previous: Henning Pedersen	Loan closing date	ADB: 31/12/2012 IFAD: 31/03/2014		08/07/2014 29/05/2015	
Regional director(s)	Hoonae Kim	Mid-term review	Nov 2010			
Lead evaluator for project performance evaluation	Simona Somma, IOE Andrew Brubaker, IED	IFAD loan disbursement at project completion (%)			72.1%	
Project performance evaluation quality control panel	Fumiko Nakai, IOE Anna Taketani, IED	Date of project completion report			March 2014	

Definition and rating of the evaluation criteria used by IOE and IED

Criteria	Definition *	Rated by IOE	Rated by IED
Rural poverty impact	Impact is defined as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a result of development interventions.	Yes	No
	<i>Four impact domains</i>		
	<ul style="list-style-type: none"> Household income and net assets: Household income provides a means of assessing the flow of economic benefits accruing to an individual or group, whereas assets relate to a stock of accumulated items of economic value. The analysis must include an assessment of trends in equality over time. 	No	No
	<ul style="list-style-type: none"> Human and social capital and empowerment: Human and social capital and empowerment include an assessment of the changes that have occurred in the empowerment of individuals, the quality of grass-roots organizations and institutions, the poor's individual and collective capacity, and in particular, the extent to which specific groups such as youth are included or excluded from the development process. 	No	No
	<ul style="list-style-type: none"> Food security and agricultural productivity: Changes in food security relate to availability, stability, affordability and access to food and stability of access, whereas changes in agricultural productivity are measured in terms of yields; nutrition relates to the nutritional value of food and child malnutrition. 	No	No
	<ul style="list-style-type: none"> Institutions and policies: The criterion relating to institutions and policies is designed to assess changes in the quality and performance of institutions, policies and the regulatory framework that influence the lives of the poor. 	No	No
Development impact¹	A broader assessment of the long-term, far-reaching changes to which a project contributed in the targeted areas	No	Yes
Project performance	Project performance is an average of the ratings for relevance, effectiveness, efficiency and sustainability of benefits.	Yes	Yes
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, institutional priorities and partner and donor policies. It also entails an assessment of project design and coherence in achieving its objectives. An assessment should also be made of whether objectives and design address inequality, for example, by assessing the relevance of targeting strategies adopted.	Yes	Yes
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.	Yes	Yes
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted into results.	Yes	Yes
Sustainability of benefits	The likely continuation of net benefits from a development intervention beyond the phase of external funding support. It also includes an assessment of the likelihood that actual and anticipated results will be resilient to risks beyond the project's life.	Yes	Yes
Other performance criteria			
Gender equality and women's empowerment	The extent to which IFAD interventions have contributed to better gender equality and women's empowerment, for example, in terms of women's access to and ownership of assets, resources and services; participation in decision making; work load balance and impact on women's incomes, nutrition and livelihoods.	Yes	No
		Yes	No

¹ This is an ADB specific criteria

<i>Criteria</i>	<i>Definition</i> [*]	<i>Rated by IOE</i>	<i>Rated by IED</i>
Innovation	The extent to which IFAD development interventions have introduced innovative approaches to rural poverty reduction;	Yes	No
Scaling up	The extent to which IFAD development interventions have been (or are likely to be) scaled up by government authorities, donor organizations, the private sector and others agencies.		
Environment and natural resources management	The extent to which IFAD development interventions contribute to resilient livelihoods and ecosystems. The focus is on the use and management of the natural environment, including natural resources defined as raw materials used for socio-economic and cultural purposes, and ecosystems and biodiversity - with the goods and services they provide.	Yes	No
Adaptation to climate change	The contribution of the project to reducing the negative impacts of climate change through dedicated adaptation or risk reduction measures	Yes	No
Overall project achievement	This provides an overarching assessment of the intervention, drawing upon the analysis and ratings for rural poverty impact, relevance, effectiveness, efficiency, sustainability of benefits, gender equality and women's empowerment, innovation and scaling up, as well as environment and natural resources management, and adaptation to climate change.	Yes	No
Performance of partners			
• IFAD	This criterion assesses the contribution of partners to project design, execution, monitoring and reporting, supervision and implementation support, and evaluation. The performance of each partner will be assessed on an individual basis with a view to the partner's expected role and responsibility in the project life cycle.	Yes	Yes
• Government		Yes	Yes
Project completion report quality ratings		Yes	No
Scope		Yes	No
Quality		Yes	No
Lessons learned		Yes	No
Candour		Yes	No

* These definitions build on the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) Glossary of Key Terms in Evaluation and Results-Based Management; the Methodological Framework for Project Evaluation agreed with the Evaluation Committee in September 2003; the first edition of the Evaluation Manual discussed with the Evaluation Committee in December 2008; and further discussions with the Evaluation Committee in November 2010 on IOE's evaluation criteria and key questions.

Rating comparison^a

Criteria	IFAD rating	ADB rating	Joint Project Performance Evaluation rating	
			IOE	IED
Rural poverty impact	5	-	4	-
Project performance				
Relevance	5	2	4	2
Effectiveness	4	1	3	1
Efficiency	4	2	4	2
Sustainability of benefits	5	1	3	1
Project performance^b	4.3 (without sustainability)	1.5 (less than successful)	3.5	
Other performance criteria				
Gender equality and women's empowerment	5		4	
Innovation	4		3	
Scaling up	4		4	
Environment and natural resources management	4		4	
Adaptation to climate change	4		-	
Overall project achievement^c	5	-	4	
Development impact	-	1		1
Partner's Performance^d				
IFAD	4		4	2
ADB			4	2
Government	4		4	2

^a Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

^b Arithmetic average of ratings for relevance, effectiveness, efficiency and sustainability of benefits.

^c This is not an average of ratings of individual evaluation criteria but an overarching assessment of the project, drawing upon the rating for relevance, effectiveness, efficiency, sustainability of benefits, rural poverty impact, gender, innovation and scaling up, environment and natural resources management, and adaptation to climate change.

^d The rating for partners' performance is not a component of the overall project achievement rating.

Progress against the project's logical framework

<i>Province</i>	<i>Meeting hall</i>	<i>Small Irrigation Schemes</i>	<i>Gravity-fed systems</i>	<i>Water reservoirs</i>	<i>Bridges, roads, culverts</i>	<i>School dispensary rehabilitation</i>	<i>Public toilets</i>	<i>Total</i>
Unit cost (million kip)	46 960	160 000	160 000	160 000	160 000	160 000	8 000	
Luangnamtha (number of construct)	27	4	11	5	3	1	9	60
cost (million kip)	1 268	640	1760	800	480	160	72	5180
Bokeo (number of construct)	14	4	4	2	2	1	6	33
cost (million kip)	657	640	640	320	320	160	48	2785
Luangprabang (number of construct)	26	4	7	4	12	1	9	63
cost (million kip)	1 221	640	1120	640	1920	160	72	5773
Houaphanh (number of construct)	37	8	13	6	9	4	16	93
cost (million kip)	1 738	1280	2 080	960	1 440	640	128	8266
Xiengkhoung (number of construct)	12	1	5	2	6	1	5	32
cost (million kip)	564	160	800	320	960	160	40	3004
Total numbers	116	21	40	19	32	8	45	281
Total cost million kip	5 448	3 360	6 400	3 040	5 120	1 280	360	25 008
Total cost USD (8,000kip/1USD)	680 913	420 000	800 000	380 000	640 000	160 000	45 000	3 125 913

Source: Based on NRSLDP, Project Completion Report, table 17, 2014

List of key persons met

Ministry of Agriculture and Forestry

Dr Phouang Parisak Pravongviengkham, Vice Minister

Department of Planning and Cooperation

Xaypladeth Choulamany, Director General

Chanthaneth Simahano, Deputy Director General

Phommy Inthichack, Director of International Cooperation Division

Department of Livestock and Fisheries

Sithong Phiphakhavong, Deputy Director General

Souphavanh Keovilay, National Project Coordinator

Syseng Khounsy, Former National Project Coordinator

Department of Agriculture Extension and Cooperative

Tienne Vannasouk, Deputy Director General

Somxay Sisanonh, Deputy Director General

Ministry of Planning and Investment

Department of Monitoring and Evaluation

Viegsan Chantha, Deputy Director General

Chansamai Phommachan, Evaluation Officer

National Agriculture and Forestry Research Institute

Vanthong Phengvichith, Deputy Director General

GIZ

Thorsten Fuchs, Programme Director – Microfinance in Rural Areas – Access to Finance for the Poor

Bandit Sisoukda, Head of AFP-Operational Task Force National Microfinance Senior advisor Access to Finance for the Poor, Bank of the Lao PDR

Asian Development Bank

Steven Schipani, Senior Portfolio Management Specialist – Lao PDR Resident Mission

Food and Agriculture Organization

Stephen Rudgard, Country Representative

International Fund for Agriculture Development

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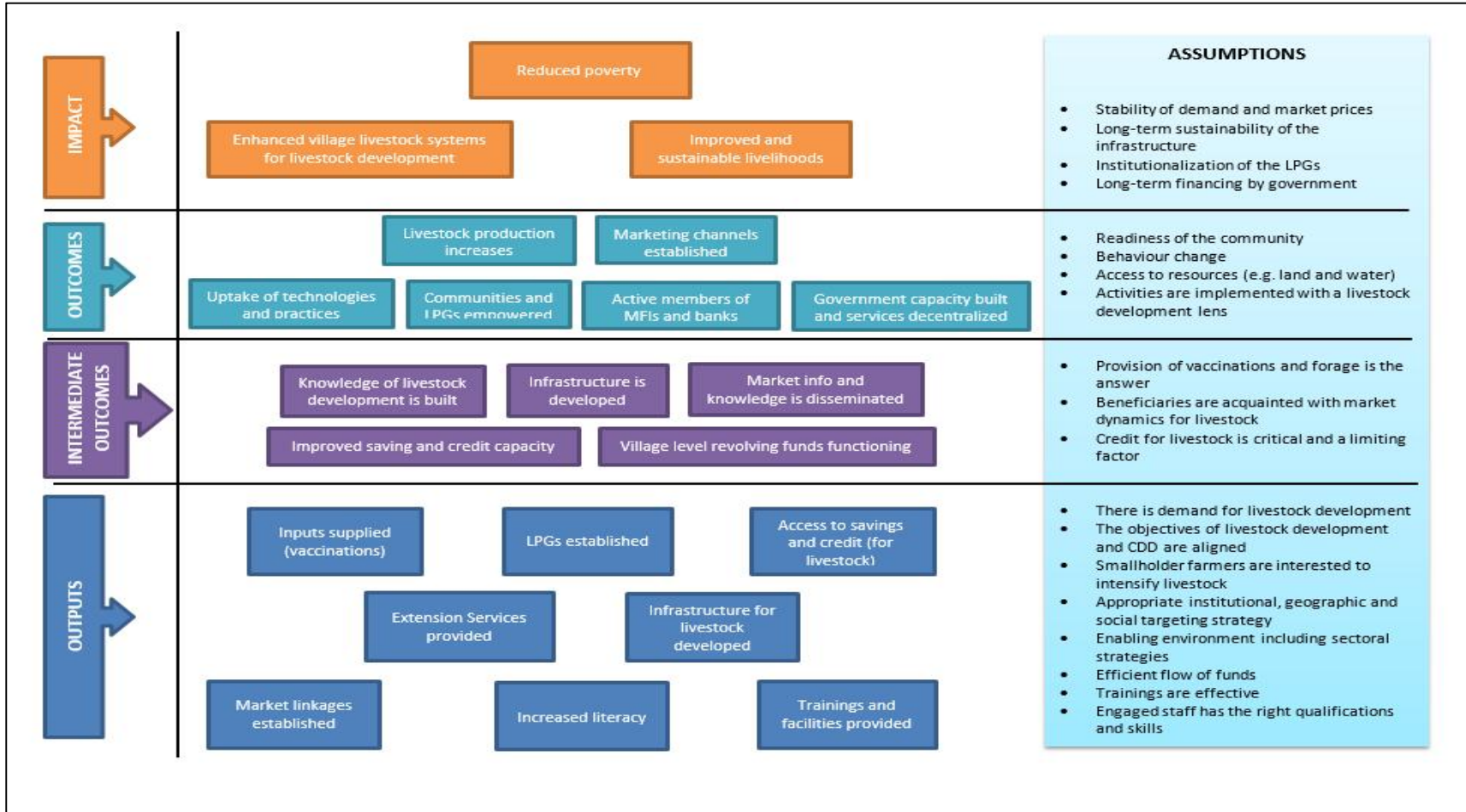
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Project timeline

<i>Project Milestone</i>	<i>ADB loan and grant</i>	<i>IFAD loan</i>
Executive Board Approval	29-Sep-06	14-Dec-06
Loan Agreement signed	15-Jan-07	29-Jan-07
Effectiveness in Loan Agreement	15-Apr-07	10-Jul-07
Effectiveness (actual)	28-Jun-07	28-Jun-07
Estimated Completion[1]	30-Jun-12	30-Jun-07
Original Closing	31-Dec-12	31-Mar-14
Actual Closing	8-Jul-14	29-May-15

Source: Independent Office of Evaluation of International Fund for Agricultural Development and Independent Evaluation Department of Asian Development Bank.

Theory of change



Design and monitoring framework

Design Summary	Appraisal Targets/Indicators	Project Achievements	Evaluation Findings
Impact Improved Sustainability of Livelihoods of Upland Smallholders in Northern Lao PDR	<ul style="list-style-type: none"> – Poor households in target districts reduced by 12 per cent by 2017. – Number of households owned key assets increased by 20 per cent by 2017. – Percentage of malnutrition among children under 5 year reduced by 10 per cent by 2017. 	<ul style="list-style-type: none"> – Poor households in target districts reduced from 39 per cent in 2005 to 25 per cent in 2013. – Number of households owning key assets increased from 26 per cent in 2010 to 38 per cent in 2013. – Chronic malnutrition among children aged under 5 years reduced from 53 per cent in 2010 to 48 per cent in 2013. 	<ul style="list-style-type: none"> – Government statistics suggest that poverty has been declining throughout the country. – Results of RIMS surveys conducted by IFAD to determine impact of NRSLLDP interventions also indicate a decline in the percentage of households (i) considered poor (51 per cent in 2010 compared to 46 per cent in 2013, (ii) in the lowest asset ownership groups; (iii) chronic malnutrition. While not directly attributable to the project, it is reasonable to assume that the project may have contributed to these positive trends. – Key informant interviews and focus group discussion (FGDs) with project beneficiaries during project performance evaluation (PPE) mission suggest increased in incomes and assets of households in project areas due to increased livestock population from project interventions.
Outcome Enhanced Village Livestock Management	<ul style="list-style-type: none"> – Average household income from livestock production increased from US\$87 in 2008 to US\$400 by 2013. – Livestock population for large ruminant increased annually by 10 per cent by 2013 from the 2005 level. – Average number of pigs owned per household increased from 1.8 in 2005 to 3.7 by 2013. – Average number of goats owned per household increased from 0.51 in 2005 to 1.5 by 2013. – Average number of poultry owned per household increased from 10.5 in 2005 to 15 by 2013. – Number of household raised large 	<ul style="list-style-type: none"> – Average household income from livestock production increased from US\$87 in 2008 to US\$425. – Livestock population for large ruminants increase annually by 82 per cent. – Average number of pigs owned per household increased to 3.5 heads. – Average number of goats owned per household increased to 1.3 heads. – Average number of poultry owned per household increased to 20.2. 	<ul style="list-style-type: none"> – Most numeric targets on livestock production were achieved at completion except targets on average number of pigs and goats owned per household, and time spent by women on feed collection and preparation. – RIMS survey showed only a small increase in livestock ownership (from 63 per cent 2010 to 65 per cent in 2013). – The evaluation mission was unable to corroborate achievement of outcome targets due to lack of M&E data. – Nonetheless, during focus group discussions (FGDs) for the PPE mission, project beneficiaries in 24 villages reported increases in the number of livestock owned and decline in animal deaths compared to situation before the project.

Design Summary	Appraisal Targets/Indicators	Project Achievements	Evaluation Findings
	<p>ruminant increased by 10 per cent by 2013 from the 2005.</p> <ul style="list-style-type: none"> – Mortality of large ruminants decreased by 10 per cent by 2013 from the 2005 level. – Mortality of pigs decreased by 10 per cent by 2013 from the 2005 level. – Mortality of goats decreased by 10 per cent by 2013 from the 2005 level. – Mortality of poultry decreased by 20 per cent by 2013 from the 2005 level. – Women spend less than 1.2 hours per day on feed collection and preparation for pig production level. 	<ul style="list-style-type: none"> – Number of household raising large ruminants increased by 16 per cent. – Mortality of large ruminants decreased by 11 per cent. – Mortality of pigs decreased by 21 per cent. – Mortality of goats decreased by 6 per cent. – Mortality of poultry decreased by 25 per cent. – Women spend 1.5 hours per day on feed collection and preparation for pig production. 	
<p>Output 1 Improved On-farm Livestock Production Technologies</p>	<ul style="list-style-type: none"> – 6,000 households in project villages adopted livestock forage technologies. – At least 3 000 hectare of forage/cassava cultivated. – 72 on-farm demonstration units established. – 12 000 households adopted improved animal housing. – 6 000 households fully applied improved livestock management system. – 75 per cent of large ruminant population vaccinated. 	<ul style="list-style-type: none"> – 6 810 households in project villages adopted livestock forage technologies – 5 416 hectare of forage/cassava cultivated. – 71 on-farm demonstration units established. – 12 986 households adopted improved animal housing. – 6 810 households fully applied improved livestock management system. – 166 per cent of large ruminant population vaccinated. 	<ul style="list-style-type: none"> – Project achieved or exceeded targets relating to forage cultivation, animal housing, and vaccination at completion. – However, the evaluation team observations during the PPE mission suggest that forage cultivation is no longer being practiced in project villages visited. – “Fully applied” is not well defined and not measurable. It should be noted, however, that ADB PCR also raised doubts on the reliability of M&E data on adoption of improved livestock management practices.

Design Summary	Appraisal Targets/Indicators	Project Achievements	Evaluation Findings
	<ul style="list-style-type: none"> – 75 per cent of pig population vaccinated. – 75 per cent of goat population vaccinated. – 60 per cent of poultry population vaccinated. 	<ul style="list-style-type: none"> – 86 per cent of pig population vaccinated. – 75 per cent of goat population vaccinated. – 60 per cent of poultry population vaccinated. 	
Output 2 Developed Market Efficiency and Livestock Enterprises	<ul style="list-style-type: none"> – 6 000 livestock production group (LPG) members are aware of negotiation skills with traders. – 1 500 LPGs receive training on marketing. – 155 LPGs participate in study tour on marketing. – 8 400 households have access to livestock market information. 	<ul style="list-style-type: none"> – 6,045 LPG members are aware of negotiation skills with traders. – 1 601 LPGs receive training on marketing. – 168 LPGs participate in study tour on marketing. – 8 400 households have access to livestock market information. 	<ul style="list-style-type: none"> – Output 2 numeric targets were achieved at completion. Since this output was dropped at mid-term, the utility and effectiveness of the training has become doubtful.
Output 3 Strengthened Participatory Extension Networks	<ul style="list-style-type: none"> – Each extension worker spends at least 20 days per month in field. – 6 000 of LPG members are women. – 6 000 of LPG members are poor households. – 9 600 of LPG members are ethnic groups. – At least 35 per cent of extension workers are women. 	<ul style="list-style-type: none"> – Each extension worker spends 22 days per month in field. – 12 668 of LPG members are women. – 1 548 of LPG members are poor households. – 9 127 of LPG members are ethnic groups. – 35 per cent of extension workers are women. 	<ul style="list-style-type: none"> – Output 3 targets were achieved at completion except number of LPG members from poor households. However, data could not be verified during the PPE mission. – The PPE is of the view that indicators selected are not directly linked to the expected output because the selected indicators do not adequately capture quality of participation. Nonetheless, FGDs conducted during the PPE mission confirmed that extension activities facilitated the uptake of new technologies. – Key informant interviews at the provincial and district level held the view that training programmes conducted under the project helped strengthen the capacity of extension workers and LWU staff.
Output 4 Effective Community-Driven Development	<ul style="list-style-type: none"> – At least 6 000 loans provided and repaid to the village livelihoods fund (VLF). – Number of non-performing loans not exceed 300. 	<ul style="list-style-type: none"> – 9 519 loans provided and repaid to the VLFs. – There were 5 non-performing loans. 	<ul style="list-style-type: none"> – Most targets relating to VLF lending were achieved or exceeded at completion except number of female-headed households that accessed loans. The number of village infrastructure built or renovated, which is the other element of the CDD component, also fell short of target.

Design Summary	Appraisal Targets/Indicators	Project Achievements	Evaluation Findings
	<ul style="list-style-type: none"> - 3 000 VLF loans taken by Women. - 300 female headed households accessed to loans. - 3 000 VLF loans taken by poor household members. - 3 600 VLF loans taken by ethnic groups. - 300 village saving and credit committee (VSCC) having at least 1 woman representative in each VSCC. - 300 village infrastructure schemes constructed/ renovated. - At least 180 VSCC fully applied VLF procedures/ guidelines. 	<ul style="list-style-type: none"> - 9 502 VLF loans taken by women. - 203 female headed households accessed to loans. - 3 498 VLF loans taken by poor household members. - 6 032 VLF loans taken by ethnic groups. - 373 VSCC having at least 1 woman representative in each VSCC. - 260 village infrastructure schemes constructed/renovated. - 180 VSCC fully applied VLF procedures/ guidelines. 	<ul style="list-style-type: none"> - The PPE mission was unable to obtain updated VLF data because the project stopped collecting M&E data after project completion.
Output 5 Strengthened Project Implementation Management	<ul style="list-style-type: none"> - 12 semi-annual meetings of project steering committee (PSC) organized. - 24 provincial PSC meetings organized. - 60 project coordination meetings organized. - 1 080 monthly district coordination meetings organized. - 30 annual work plans and budget prepared by provincial/district implementation unit (PIU/DIU). - 24 quarterly progress reports prepared and submitted on time. 	<ul style="list-style-type: none"> - 11 semi-annual PSC meetings organized. - 24 provincial PSC meetings organized. - 60 project coordination meetings organized. - 1 080 monthly district coordination meetings organized. - 30 annual work plans and budgets prepared by PIU/DIU. - 24 quarterly progress reports prepared and submitted on time. 	<ul style="list-style-type: none"> - Output 5 targets were achieved at completion except number of PSC meetings organized which was slightly below target. - However, as pointed out in the ADB PCR, the selected indicators do not meaningfully capture capacity and performance

Design Summary	Appraisal Targets/Indicators	Project Achievements	Evaluation Findings
	<ul style="list-style-type: none"> – 6 audit reports prepared and submitted on time. 	<ul style="list-style-type: none"> – – 7 audit reports prepared and submitted on time. 	

CDD = community drive development, DIU = district implementation unit, IFAD International Fund for Agricultural Development, LPG = livestock production group, M&E = monitoring and evaluation, PCR = project completion report, PIU = provincial implementation unit, PPE = project performance evaluation, PSC = project steering committee, RIMS = Results and Impact Management System, VLF = village livelihood fund, VSCC = village saving and credit committee.
Source: Independent Evaluation Department, Asian Development Bank.

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