

#### **Executive Board**

# President's memorandum Proposed additional financing to Lao People's Democratic Republic Agriculture for Nutrition Project – Phase II (AFN-II)

Project ID: 2000003760

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Action: The Executive Board is invited to approve the recommendation for the

proposed additional financing contained in paragraph 67.

**Technical questions:** 

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# **Financing summary**

Amount of additional IFAD climate finance:

Cooperating institution:

**Initiating institution: IFAD** Lao People's Democratic Republic Borrower/recipient: Ministry of Agriculture and Forestry **Executing agency:** Total project cost: US\$48.2 million Amount of original IFAD loan: US\$13.2 million Terms of original IFAD loan: Blend terms Amount of additional IFAD loan: US\$5.2 million Terms of additional IFAD loan: Blend terms Maturity period of 25 years, including a grace period of 5 years, with a service charge of 0.75 per cent and interest rate of 1.25 per cent per annum in special drawing rights (adjustments for single-currency loans) Financing gap: US\$1.5 million Cofinancier: Global Agriculture and Food Security Program (GAFSP) US\$20 million Amount of cofinancing: Terms of cofinancing: Cofinancing Grant Contribution of borrower/recipient: US\$4.8 million Domestic private sector contribution: US\$0.3 million (in cash) US\$1.1 million (in kind) Contribution of beneficiaries: US\$2.1 million (in kind) Amount of original IFAD climate finance: US\$6.05 million

US\$3.2 million

**IFAD** 

# I. Background and project description

#### A. Background

- 1. The Agriculture for Nutrition Project Phase II (AFN-II)<sup>1</sup> for the Lao People's Democratic Republic was approved by IFAD's Executive Board on 22 December 2022, became effective on 16 May 2023 and is scheduled for completion on 30 June 2030, with a financial closing date of 31 December 2030.
- 2. The total project cost is US\$48.2 million, including an IFAD original loan of US\$13.2 million, a grant of US\$20 million from the Global Agriculture and Food Security Program (GAFSP) (of which US\$12 million has been implemented through IFAD and US\$8 million through the World Food Programme [WFP]), a beneficiary contribution of US\$2.1 million, private sector in-cash and in-kind contributions of US\$1.4 million and a government contribution of US\$4.8 million. The original project had a financing gap of US\$6.7 million.
- 3. To address the financing gap identified during the project's design stage, on 13 February 2024 the Government of the Lao People's Democratic Republic requested additional financing of US\$6.7 million in the form of a loan on blend terms under IFAD's twelfth performance-based allocation system (PBAS) cycle.
- 4. Following the final reprogramming of the pipeline delivery under the Twelfth Replenishment of IFAD's Resources (IFAD12), US\$5.214 million was allocated to partially cover the original financing gap, reducing it to US\$1.5 million. This remaining gap may be funded through future PBAS cycles, under terms to be determined and subject to internal procedures and subsequent Executive Board approval, or through cofinancing identified during implementation.
- 5. As the financing gap was identified and approved at the design stage, this additional financing request does not alter the original project cost or necessitate an extension of the completion or closing dates.

#### B. Original project description

- 6. The AFN-II goal is to enable 28,000 vulnerable households living in the project area to improve their income by 20 per cent by 2030.
- 7. The project development objective is to enable 28,000 vulnerable households living in the project area to improve their food and nutrition security, to enhance their climate resilience and to increase smallholders' income by 2030.
- 8. The project duration is seven years (2023–2030).
- 9. Five indicators will be used to assess the project's impacts: (i) 16,800 households with food insecurity decreased by 20 per cent, as measured by the Food Insecurity Experience Scale; (ii) 14,400 women reporting meeting the minimum dietary diversity requirement; (iii) 16,800 households with incomes increased by 20 per cent; (iv) 16,800 households with climate change resilience increased by 30 per cent, as measured by the IFAD resilience scorecard; and (v) 33,600 women demonstrating improved economic, social and cultural empowerment (measured by the IFAD empowerment index).

# II. Rationale for additional financing

#### A. Rationale

10. AFN-II is the second phase of the successful Agriculture for Nutrition Project – Phase I (AFN-I), which concluded in December 2022 and received a satisfactory rating (5) in its project completion report, dated 27 June 2023. The project was designed and approved with a total cost of US\$48.2 million, consisting of an IFAD loan of US\$13.2 million, a grant of US\$20 million from GAFSP and contributions

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<sup>&</sup>lt;sup>1</sup> EB 2022/LOT/P.6, project ID: 2000003760.

- from the private sector, beneficiaries and the Government totalling US\$8.4 million, with a financing gap of US\$6.7 million.
- 11. To address this financing gap, the Government of the Lao People's Democratic Republic has requested additional financing. Following the final reprogramming of the IFAD12 pipeline delivery, IFAD allocated US\$5.214 million to cover critical activities originally budgeted within the financing gap. This funding will support investments in agricultural cooperatives, multi-use water systems, small-scale irrigation schemes, food processing and storage facilities and rural access tracks. Securing this funding is essential for attaining the project's original outreach targets and sustaining the momentum achieved in phase I.
- Since its inception in May 2023, AFN-II has undergone an implementation support 12. mission (October 2023) and a supervision mission (April to May 2024), both of which confirmed the soundness of the project's design and its relevance.

#### Special aspects relating to IFAD's corporate mainstreaming priorities

- 13. In line with IFAD's mainstreaming commitments, the project has been validated as:
  - □ Including climate finance
  - □ Gender-transformational
  - ⋈ Nutrition-sensitive
  - □ Prioritizing Indigenous Peoples
  - ☑ Including adaptive capacity
- **Gender**. The country's score on the 2019 Gender Development Index is 0.927. which implies medium equality in Human Development Index achievements between women and men. Its score on the Gender Inequality Index is 0.459, ranking it 113 out of 162 countries in the 2019 index.<sup>2</sup>
- 15. Women hold 27.5 per cent of parliamentary seats<sup>3</sup> and 35.1 per cent of adult women have reached at least a secondary level of education, compared with 46.2 per cent of their male counterparts. In 2021 and 2022, the World Economic Forum ranked the country first worldwide in terms of women's economic participation and opportunity, but women still face constraints in educational attainment (ranked 109<sup>th</sup>), health and survival (ranked 55<sup>th</sup>) and political empowerment (ranked 116<sup>th</sup>).4
- Food security and nutrition. According to the World Health Organization 16. benchmark, more than 80 per cent of the Lao population is unable to afford a healthy diet. The triple burden of malnutrition - high stunting, wasting and anaemia rates - remains a key challenge and coexists with increasing rates of overweight and obesity.
- One third of children under the age of 5 remain chronically malnourished (stunted) 17. and there are large regional disparities. The prevalence of wasting stands at 9 per cent. Current estimates indicate that stunting in the first 1,000 days of a child's life costs the Government 2.4 per cent of GDP per year.
- Ethnic groups. The Government recognizes 50 main ethnic groups and 160 subgroups. The Lao-Tai group represents 67 per cent of the population. There are three major non-Lao-Tai ethnolinguistic groups, namely the Mon-Khmer (21 per cent of the population), the Hmong-Lu Mien (8 per cent) and the Sino-Tibetan (3 per cent).

<sup>&</sup>lt;sup>2</sup> United Nations Development Programme, 2020.

<sup>&</sup>lt;sup>3</sup> World Bank, 2021.

<sup>&</sup>lt;sup>4</sup> World Economic Forum, 2022.

- 19. Ethnic groups in the project area are usually the poorest and most affected by food and nutrition insecurity. This is due to various factors related to access to education, health care, clean water and sanitation, poverty gaps and social dietary norms.
- 20. **Climate change**. The key climate change vulnerabilities in the Lao People's Democratic Republic are caused by flooding and droughts, with the agricultural sector being most vulnerable. Climatic variability, in particular an increase in the frequency and severity of droughts in some parts of the country, is already limiting water availability for household production in dry seasons, despite abundant surface and groundwater resources.
- 21. Most of the climate models predict an increase in annual precipitation rates, with larger changes under higher emission pathways.

### B. Description of geographical area and target groups

- 22. The project area comprises 500 villages from 20 districts in six provinces, namely Oudomxay, Phongsaly and Xieng Khouang provinces in the north and Saravane, Sekong and Attapeu provinces in the south.
- 23. The target population comprises 168,000 people in 28,000 households, representing about 33 per cent of the combined population of the target districts of approximately 502,000 people. The target groups are poor and near-poor smallholder farmers and their household members who are at risk of food insecurity and malnutrition and living in the target districts. The target population includes: (i) children under 5 years of age; (ii) adolescent girls (aged 10–19); (iii) women of reproductive age (aged 15–49 years); (iv) youth (aged 15–35); and (v) others (ensuring 50 per cent female). The project will support vulnerable households and individuals most likely to be left behind, such as women-headed households (2 per cent), persons with disabilities (2 per cent), Lao migrants returning to rural areas due to COVID-19 impacts (5 per cent) and ethnic groups other than Lao-Tai (at least 70 per cent).
- 24. The proposed additional financing was included in the original project design and does not require any change in the intended geographical area or target groups.

#### C. Components, outcomes and activities

25. The project components and subcomponents are shown in the table below.

Table 1
Project components, subcomponents and activities

Component 1	Component 2	Component 3
Establishment of community-driven agriculture- and natural resource-based nutrition interventions (WFP and IFAD)	Improvement of business partnerships and market access (IFAD)	Enabling environment (IFAD and WFP)
Subcomponent 1.1: Improved nutritional status of women, children, girls and other vulnerable groups (WFP and IFAD)	Activity 1: Support to micro, small- and medium-sized enterprises in food supply chains	Activity 1: Multisectoral planning and coordination (WFP)
Activity 1: Farmer nutrition schools and women's empowerment	Activity 2: Multi-stakeholder business platforms	Activity 2: Partnerships
Activity 2: Establishment of integrated home gardens	Activity 3: Market-related infrastructure	Activity 3: Project management
Activity 3: Processing and conservation of domestic foods		
Activity 4: Management of local food sources and wild foods		
Activity 5: Community nutrition- and gender-related social and behavioural change communication activities		
Subcomponent 1.2: Improvement of agricultural productivity for selected commodities (IFAD)		

Activity 6: Strengthening of community-based organizations

Activity 7: Agriculture/rural advisory services improved

Activity 8: Construction and upgrading of climate change adaptation infrastructure

# D. Costs, benefits and financing Project costs

(irrigation/multiple-use water systems)

- 26. The total cost for the seven-year AFN-II is estimated at US\$48.2 million, disaggregated as follows: an IFAD original loan of US\$13.2 million, the new proposal of additional financing of US\$5.2 million; a GAFSP grant of US\$20.0 million (US\$12.0 million implemented through IFAD and US\$8.0 million implemented by WFP); beneficiary contributions of US\$2.1 million; private sector contributions of US\$1.4 million; a government contribution of US\$4.8 million; and a remaining financing gap of US\$1.5 million. The financing gap of US\$1.5 million may be sourced through subsequent PBAS cycles, under financing terms to be determined and subject to internal procedures and subsequent Executive Board approval, or through cofinancing identified during implementation.
- 27. Climate change adaptation activities under subcomponent 1.2 (improvement of agricultural productivity for selected commodities), activity 3 under component 2 (market-related infrastructure) and activity 3 under component 3 (project management) are counted as adaptation finance. As per the multilateral development banks' methodologies for tracking climate change adaptation and mitigation finance, the total amount of IFAD climate finance for this project is estimated at US\$9.3 million. The amount of IFAD climate finance for the additional financing is US\$3.2 million.

Table 2
Original and additional financing summary
(Thousands of United States dollars)

	Original financing*	Additional financing	Total
IFAD loan	13 234	5 214	18 448
GAFSP grant (IFAD/MAF)	11 997	-	11 997
GAFSP grant (WFP)	7 996	-	7 996
Beneficiaries (in kind)	2 132	-	2 132
Private sector (in kind)	1 156	-	1 156
Private sector (in cash)	289	-	289
Borrower/recipient	4 777	-	4 777
Financing gap	6 714	(5 214)	1 500
Total	48 295	-	48 295

<sup>\*</sup> See tables 2 and 3 in document EB 2022/LOT/P.6 for detailed breakdown.

Table 3
Additional financing: project costs by component and financier (Thousands of United States dollars)

	Addition IFAD lo		Financing	gap	Total
Components	Amount	%	Amount	%	Amount
Component 1: Establishment of community-driven agriculture- and natural resource-based nutrition interventions	2 868	43	963	14	3 831
Component 2: Improvement of business partnerships and market access	2 174	32	537	8	2 711
Component 3: Enabling environment	172	3	-	0	172
Total	5 214	78	1 500	22	6 714

Table 4

Additional financing: project costs by expenditure category and financier (Thousands of United States dollars)

	Additional IFAL	loan	Financing	gap	Total
Expenditure category	Amount	%	Amount	%	Amount
Investment costs					
A. Work	2 890	43	-	-	2 890
B. Goods, services and inputs	-	-	-	-	-
C. Grants and subsidies	2 042	30	1 500	22	3 542
D. Consultancies	172	3	-	-	172
E. Training	110	2	-	-	110
Total investment costs	5 214	78	1 500	22	6 714
Recurrent costs	-	-	-	-	-
A. Operating costs	-	-	-	-	-
Total recurrent costs	-	-	-	-	-
Total	5 214	78	1 500	22	6 714

Table 5 **Project costs by component and project year**(Thousands of United States dollars)

	2024		2025		2026		2027		2028		2029		2030		Total	
Components	Amount	%	Amount													
Component 1	2 583	9	6 612	24	8 315	30	6 787	24	2 218	8	866	3	409	1	27 790	
Component 2	9	0	505	7	1 393	19	2 044	27	2 552	34	889	12	45	1	7 437	
Component 3	2 636	20	1 712	13	2 179	17	2 189	17	1 661	13	1 366	10	1 325	10	13 069	
Total	5 228	11	8 829	18	11 887	25	11 020	23	6 431	13	3 121	6	1 779	4	48 295	

#### Financing and cofinancing strategy and plan

- 28. The IFAD loan of US\$18.4 million (original and additional) is on blend terms and will finance 38 per cent of total project costs; the remaining financing gap is 3 per cent. IFAD's share of recurrent costs is 0.3 per cent of total project financing and 3 per cent of IFAD financing.
- 29. Other cofinancing sources account for 59 per cent of the total project financing, including international cofinancing of 41.4 per cent and domestic financing of 17.3 per cent. These sources include the GAFSP grants, implemented by IFAD and the Ministry of Agriculture and Forestry (MAF) and WFP; in-kind beneficiary contributions; in-kind and cash contributions from the private sector; and counterpart contributions from the Government of the Lao People's Democratic Republic.

#### **Disbursement**

- 30. The revolving fund modality under the report-based disbursements system will be the method used for withdrawing funds from the IFAD financing. Quarterly interim financial reports will be used as a basis for submission of withdrawal applications to IFAD and will be submitted to IFAD within 45 days of the end of the reporting quarter through the IFAD Client Portal Financial Execution Module to provide cash forecasts and request disbursement from IFAD. Advance withdrawals through a revolving fund approach will be the principal method of disbursement.
- 31. Government, beneficiary and private sector contributions will be incorporated into the annual workplan and budget (AWPB) and will be identified in the project accounts.

#### Summary of benefits and economic analysis

32. The results of the economic analysis over a 20-year period show that the project is very profitable, with a net present value of 507,621,786,567 Lao kip (US\$34,281,385) and an economic rate of return of 26 per cent.

33. A sensitivity analysis confirms that the project would remain profitable in the event of an increase in costs of 28 per cent, a decrease in benefits of 17 per cent, an 11 per cent cost increase or a decrease in benefits of 10 per cent. The project would also remain profitable if benefits were delayed by one year.

#### Exit strategy and sustainability.

34. The draft exit strategy in annex 11 of the project design report lays out the sustainability pathways for each activity, exploring the various options (phasing down, phasing over and phasing out), with an analysis of associated risks. The exit strategy will be further developed from start-up to ensure it is owned by the relevant stakeholders at country level and adapted to project development.

# III. Risk management

# A. Risks and mitigation measures

- 35. The overall project risk profile is moderate.
- 36. **Financial risks**. Inherent and residual financial management risk is substantial.
- 37. **Mitigation actions:** (i) enhancement of accounting software by using a budgeting module at the provincial level; (ii) procurement of auditing services aligned with IFAD requirements; and (iii) capacity-building for new finance staff in departments and district units.
- 38. Risks associated with the coordination of several donor projects will be mitigated by the decentralized implementation structure.

Table 6
Overall risk summary

Risk areas	Inherent risk rating	Residual risk rating
Country context	Substantial	Moderate
Sector strategies and policies	Moderate	Moderate
Environment and climate context	Substantial	Moderate
Project scope	Moderate	Low
Institutional capacity for implementation and sustainability	Moderate	Moderate
Financial management	Substantial	Substantial
Project procurement	Moderate	Moderate
Environment, social and climate impact	Moderate	Low
Stakeholders	Moderate	Moderate
Overall	Moderate	Moderate

# B. Environment and social category

39. The **environmental and social risk** category for the project is assessed as **moderate**. The project is located in areas inhabited by ethnic groups. As required by IFAD's Social, Environmental and Climate Assessment Procedures (SECAP), an Indigenous Peoples plan and a Free, Prior and Informed Consent plan have been prepared and will be operationalized and monitored during project implementation. Risks under other SECAP standards are mostly rated as low or, in a few cases, moderate.

#### C. Climate risk classification

40. The project's **climate risk** category is **moderate**. Key climate-related hazards identified in the project area are landslides, cyclones and extreme heat. Water scarcity is assessed a low, as long as the abundant surface and groundwater resources can be mobilized in a sustainable manner.

## D. Debt sustainability

41. The Lao People's Democratic Republic is in debt distress according to the latest debt sustainability analysis, carried out in May 2023. The country is eligible for

blend terms as a gap country with gross national income per capita above the operational cut-off for International Development Association eligibility for more than two consecutive years. Therefore, the Lao People's Democratic Republic is not eligible for Debt Sustainability Framework terms. Its risk rating and debt sustainability have deteriorated as a result of an adverse macroeconomic environment linked to strong exchange rate depreciation, an expansion of debt coverage to include guaranteed debt, expenditure arrears and the issuance of domestic debt to recapitalize state-owned banks.

# IV. Implementation

### A. Compliance with IFAD policies

- 42. The original AFN-II design is in line with the country strategic opportunities programme (COSOP) for the Lao People's Democratic Republic for the period 2018–2024, which has been extended to 2025. The project will directly contribute to IFAD's strategic objectives for 2016–2025, and IFAD cross-cutting priorities will be mainstreamed through a gender-transformative, ethnic groups-focused, nutrition-sensitive and climate finance approach.
- 43. No adjustment will be made to the original project design report. The additional financing will partially cover all activities foreseen at design under the financing gap.

# B. Organizational framework Management and coordination

- 44. The lead programme agency will be the MAF, through its Department of Planning and Cooperation, which will have overall responsibility for project implementation and will designate a national project coordinator. The national project coordination office (NPCO) will directly manage project implementation in collaboration with the provincial and district-level project coordinators, technical departments (e.g. the National Agriculture and Forestry Research Institute) and line agencies. The NPCO will be supported by a full-time international chief technical assistant and a technical assistance team.
- 45. Overall, the national project steering committee will provide policy direction and strategic guidance. The provincial project steering committees will approve the AWPBs and the annual progress and financial reports prepared by districts. The district socioeconomic development committees will act as district project steering committees. They will meet quarterly to endorse the district AWPB and review the semi-annual project progress reports.

#### Financial management, procurement, and governance

- 46. The implementation arrangements will follow the structure, policy and processes already in place for project implementation. The MAF, through its Department of Planning and Cooperation, will be the implementing agency. The NPCO will handle the financial management of the project. The MAF, through the NPCO, will be accountable to the Government and IFAD for the proper use of funds, in line with legal agreements.
- 47. The financial management risk for this project is substantial, owing mainly to weak financial accounting, reporting and internal audit capacity and fiduciary weaknesses inherent in community-driven development projects. Project accounting systems will comply with international accounting standards, and a suitably customized accounting software will be procured. A comprehensive financial procedures manual will be drawn up and will be subject to IFAD and government clearance, and fiduciary officers will undergo training and capacity-building activities.
- 48. The withdrawal and use of funds by AFN-II will be governed by IFAD's Project Financial Management and Financial Control Handbook for Borrowers and the financing agreement. The procedures for disbursement, financial reporting and

- maintenance of appropriate project records are described in detail in the project financial management and financial control arrangements letter.
- 49. The annual financial statements for the project will be subject to annual audit by private independent auditors, in compliance with the International Standards on Auditing and according to terms of reference acceptable to IFAD.
- 50. As custodian of the funds in the project account, the NPCO will undertake the key financial management tasks. The financial management officer at the NPCO will be responsible for the actual management of these tasks and will report to the national project coordinator. The MAF, through the NPCO, will be accountable to the Government and IFAD for the proper use of funds, in line with legal agreements. Project accounting systems will be consistent with international accounting standards and government requirements, and internal financial controls will be regularly applied.
- 51. Funds flow and disbursement arrangements. The existing designated account for AFN-II will continue to be used for the additional financing. Existing subaccounts and operating accounts established in commercial banks will also continue to be used. The special account will be used to meet national-level project costs and pay for consulting services contracts. The operating accounts will be used to fund project implementation based on the approved AWPB, which also regulates the distribution of responsibilities of the various project implementation partners at the national, district and village levels. The operating accounts at district level will be replenished in accordance with instructions from the NPCO. Both annual and longer-term workplans will be formulated for the project, defining the project activities to be implemented and detailing the activities year by year. Quarterly and yearly contract award and disbursement plans will be prepared, in line with the government regulations and activities timeline and IFAD's requirements. The utilization of the additional financing loan proceeds will commence after the original loan is fully utilized.
- 52. **Internal control**. The current approved project implementation manual and the financial management manual for AFN-II will be maintained for the additional financing.
- 53. **Accounting systems, policies, procedures, and financial reporting**. The AFN-II financial management system will adapt the current structure, policy and system of the existing AFN and continue to enhance and fulfil the design and activities of AFN-II.
- 54. **Procurement**. Procurement will be carried out in accordance with the Lao People's Democratic Republic Law on Public Procurement (2017), the Ministry of Finance Instruction on Implementation of Law on Public Procurement (2019) and any subsequent public procurement regulations, provided they are consistent with IFAD's Project Procurement Guidelines. In the event of a contradiction between IFAD guidelines and national regulations, the former will take precedence. All procurement under WFP-supervised components and activities will follow separate United Nations and WFP procurement guidelines.
- 55. Procurement will be undertaken: (i) for the overall project, by the MAF procurement committee, with support from the NPCO; (ii) for decentralized activities (training and extension services, nutrition interventions, village-to-village access roads, etc.), by provincial project teams and/or district project teams, with approval by the district procurement committee; (iii) for the challenge fund, by the recipient community-based organizations, in compliance with the procurement procedures set out in the challenge fund guidelines; (iv) for climate change adaptation infrastructure, by provincial project teams and/or district project teams, with approval by the district procurement committee; (v) for food processing and storage facilities, by district project teams, with approval by the district

- procurement committee; and (vi) for the agriculture production group (APG) grants, by the farmer groups, in compliance with procurement procedures and requirements in the APG grant guidelines.
- 56. **Target group engagement and feedback and grievance redress**. AFN-II target groups and other relevant stakeholders will participate in the project cycle, from planning to implementation to monitoring and evaluation of project interventions. To ensure that an adequate, transparent and fair formal mechanism is available for all project stakeholders, the project implementation manual provides for a detailed grievance redress mechanism, taking into account national laws and decrees and GAFSP, IFAD and WFP requirements.

# C. Monitoring and evaluation, learning, knowledge management and strategic communication

- 57. The three principal instruments for planning and monitoring will be the monitoring and evaluation database, the logical framework and the AWPB.
- 58. **Planning**. Draft AWPBs will be prepared by all concerned districts and provinces and by the district and provincial coordination offices and will then be compiled at the national level. The proposed AWPB will be submitted to IFAD and the national project steering committee for approval.
- 59. **Monitoring and evaluation**. Key indicators are defined in the logframe and will be reported upon in the semi-annual progress reports. The project's monitoring plan will help to direct project interventions to their target beneficiaries effectively and efficiently.
- 60. **Learning, knowledge management and strategic communication**. Output, outcome and impact data generated by the monitoring and evaluation system will inform high-quality case studies, briefs and reports. The NPCO will document emerging experiences, lessons learned and best practices and share them widely. All knowledge products will be communicated through the relevant channels to enhance learning, policy dialogue and potential scaling up of successful interventions. Specific knowledge products may be developed for GAFSP, IFAD and WFP purposes.
- 61. Several dedicated knowledge management and communication products will be produced on behavioural change through social and behaviour change communication, gender-transformative approaches and the promotion and conservation of wild foods.

# D. Proposed amendments to the financing agreement

- 62. The financing agreement will have to be amended to incorporate the additional financing of US\$5.214 million from IFAD, which was not part of the original agreement.
- 63. No further adjustment or change is expected.

# V. Legal instruments and authority

- 64. The financing agreement between the Lao People's Democratic Republic and IFAD constitutes the legal instrument for extending the proposed financing to the borrower/recipient. The signed financing agreement will be amended following approval of the additional financing.
- 65. The Lao People's Democratic Republic is empowered under its laws to receive financing from IFAD.
- 66. I am satisfied that the proposed additional financing will comply with the Agreement Establishing IFAD and the Policies and Criteria for IFAD Financing.

## VI. Recommendation

67. I recommend that the Executive Board approve additional financing in terms of the following resolution:

RESOLVED: That the Fund shall provide a loan on blend terms to the Lao People's Democratic Republic in an amount of five million two hundred fourteen thousand United States dollars (US\$5,214,000) on blend terms and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

Alvaro Lario President

# Original logical framework incorporating the additional financing

Results Hierarchy	Indicators				Means of V	erification		Assumption s	Project	Yr 1 (2023	3)	Project	Yr 2 (2024	1)
·	Name	Baselin e	Mid- Ter m	End Targe t	Source	Frequen cy	Responsibili ty		Year Target s	Year Result s	Cumulati ve	Year Target s	Year Result s	Cumulati ve
Outreach	1 Persons receivir supported by the pro		s prom	oted or	Project monitorin	Midline, endline,	NPCO, M&E	Communities including						
	Males - Males	0	3360 0	84000	g	annual		women and ethnic groups	0	120	120	9 000	4 564	4 684
	Females - Females	0	3360 0	84000				actively take ownership	0	273	273	9 000	5 248	5 521
	Young - Young people	0	1680 0	42000				and actively participate in	0	204	204	4 500	5 039	5 243
	Indigenous people - Indigenous people	0	4704 0	11760 0				the interventions.	0	393	393	12 600	8 778	9 171
	Total number of persons receiving services - Number of people	0	6720 0	16800 0					0	393	393	18 000	9 812	10 205
	Persons with disabilities - Number	0	1344	3360					0	0	0	360	0	0
	1.a Corresponding n reached	umber of h	ouseho	lds	Project monitorin	Midline, endline,	NPCO, M&E							
	Households - Households	0	1120 0	28000	g	annual			0	393	393	3 000		393
	1.b Estimated corres households members		otal num	ber of	Project monitorin g	Midline, endline, annual	NPCO, M&E							
	Household members - Number of people	0	6720 0	16800 0					0	2 358	2 358	18 000		2 358
Project Goal		16,800 households with increased incomes by 20% (GAFSP Tier 1 indicator)				Baseline, midline,	NPCO, Government	Increased productivity,						0
Enable 28,000	Households - Number	0	6720	16800	assessme nt	endline	analysis	value addition and market linkages result in	0	0	0	0	0	0
28,000 vulnerable nouseholds iving in the	Households - Percentage (%)	0	24	60					0	0	0	0	0	0

project area to improve their income	Males - Percentage (%)	0	20	50				increased income.	0	0	0	0	0	0
by 20%, by 2030.	Females - Percentage (%)	0	20	50					0	0	0	0	0	0
	Young - Number	0	1680	4200					0	0	0	0	0	0
Developme nt Objective Enable	16,800 households insecurity by 20% me Experience Scale indicator	easured by	Food In	security	Impact assessme nt	Baseline, midline, endline	NPCO, Government analysis	Project capacity building interventions						
28,000 vulnerable	Households - Number	0	6720	16800				and investments	0	0	0	0	0	0
households living in the project area	Households - Number of people	0	4032 0	10080 0					0	0	0	0	0	0
to improve their food and	Households - Percentage (%)	0	24	60				availability. Women are the key	0	0	0	0	0	0
nutrition security, enhance	Males - Percentage (%)	0	20	50				decision makers on household	0	0	0	0	0	0
their climate resilience and increase	Females - Percentage (%)	0	20	50				food purchases and preparations.	0	0	0	0	0	0
smallholder s' income by 2030	Young - Percentage (%)	0	10	25				Sustainable and climate resilient	0	0	0	0	0	0
by 2000	Indigenous people - Percentage (%)	0	28	70				practices promoted by	practices	0	0	0	0	0
	1.2.8 Women reporti diversity (MDDW)	ng minimu	ım dietar	у	Project monitorin	Baseline, midline,	NPCO	results in increased HH						0
	Women (%) - Percentage (%)	BL	20	50	g	endline		resilience. Targeted communities	BL	0	BL	BL	0	BL
	Women (number) - Females	BL	5760	14400	-			want to improve their health and	BL	0	BL	BL	0	BL
	Households (%) - Percentage (%)	BL	20	50				nutrition status and get effectively	BL	0	BL	BL	0	BL
	Households (number) - Households	BL	5760	14400				empowered through	BL	0	BL	BL	0	BL

	Household members - Number of people	BL	3456 0	86400				participatory planning.	BL	0	BL	BL	0	BL
	Women-headed households - Households													
	16,800 households change resilience by		reased	climate	Project monitorin g	Baseline, midline, endline	NPCO	-						
	Households - Number	0	6720	16800					0	0	0	0	0	0
	Households - Percentage (%)	0	24	60					0	0	0	0	0	0
	Males - Percentage (%)	0	20	50					0	0	0	0	0	0
	Females - Percentage (%)	0	20	50					0	0	0	0	0	0
	Young - Number	0	1680	4200					0	0	0	0	0	0
	IE.2.1 Individuals demon				Project monitorin g	Baseline, midline, endline	NPCO							
	Total persons - Percentage (%)	0	4	10	9				0	0	0	0	0	0
	Total persons - Number of people	0	6720	16800					0	0	0	0	0	0
	Females - Percentage (%)	0	20	50					0	0	0	0	0	0
	Females - Females	0	3360	8400	-				0	0	0	0	0	0
	Males - Percentage (%)	0	20	50					0	0	0	0	0	0
	Males - Males	0	3360	8400	1				0	0	0	0	0	0
Outcome 1. Community-driven	1.2.9 Households Knowledge Attitudes				Project monitorin g	Baseline, midline, endline	NPCO	Nutrition and care feeding practice benefits are						

agriculture and natural resources-	Households (number) - Households	0	5760	14400				understood and relevant to the	0	0	0	0	0	0
based nutrition intervention	Households (%) - Percentage (%)	0	20	50				targeted communities. Target HHs	0	0	0	0	0	0
s established	Household members - Number of people	0	3360 0	84000		Baseline, midline, endline		consider environmenta lly	0	0	0	0	0	0
	Proportion of childre receive a Minimum A	cceptable			Project monitorin g		NPCO	sustainable and climate- resilient						
	Males - Percentage (%)	26.4	30	40	9	61140		technologies and practices as adequate.	26.4	0	26.4	26.4	0	26.4
	Females - Percentage (%)	26.4	30	40					26.4	0	26.4	26.4	0	26.4
	Indigenous people - Number	BL		40					BL	0	BL	BL	0	BL
	Households - Number	BL	6720	16800					BL	0	BL	BL	0	BL
	Households - Percentage (%)	BL		60					BL	0	BL	BL	0	BL
	3.2.2 Households repenvironmentally sust resilient technologies	ainable an	d climat		Project monitorin g	Baseline, midline, endline	NPCO							
	Total number of household members - Number of people	0	3600 0	90000					0	0	0	0	0	0
	Households - Percentage (%)	0	22	54					0	0	0	0	0	0
	Households - Households	0	6000	15000					0	0	0	0	0	0
Outcome 2.	SF.2.1 Households supported services	satisfied	with	project-	Project monitorin	Midline, endline	NPCO, M&E	The project efficiently						
Stakeholder Feedback	Household members - Number of people	0	8960	22400	g	endinie		delivers on its expected	0	0	0	0	0	0

	Households (%) - Percentage (%)	0	32	80				outputs and outcomes	0	0	0	0	0	0
	Households (number) - Households	0	5376 0	13440 0					0	0	0	0	0	0
	SF.2.2 Households re influence decision-ma and project-supporter	aking of lo	cal auth	orities	Project monitorin g	Midline, endline	NPCO, M&E							
	Household members - Number of people		5600	14000					BL	0	BL	BL	0	BL
	Households (%) - Percentage (%)		20	50					BL	0	BL	BL	0	BL
	Households (number) - Households		3360 0	84000					BL	0	BL	BL	0	BL
Output 18,000 households	1.1.8 Households support to improve the			targeted	Project monitorin g	Baseline, midline, endline,	NPCO	The project delivers on all nutrition						
provided with targeted support to improve	Total persons participating - Number of people	0	4320 0	10800		annual		sensitive interventions, targeting the most nutritionally	0	393	393	7 500		393
their nutrition	Males - Males	0	2160 0	54000				vulnerable households	0	120	120	3 750	4 564	4 684
	Females - Females	0	2160 0	54000					0	273	273	3 750	5 248	5 521
	Households - Households	0	7200	18000					0	393	393	3 000		393
	Household members benefitted - Number of people	0	4320 0	10800 0					0	2 358	2 358	18 000		2 358
	Indigenous people - Indigenous people	0	3024 0	75600					0	393	393	12 600	8 778	9 171
	Young - Young people	0	1080 0	27000					0	204	204	4 500	5 039	5 243

	Women-headed households - Households	0	144	360					0	0	0	150		0			
Output 15,000	Persons benefiting f	rom cash	or foo	d-based	Project monitorin	Baseline, midline,	NPCO							0			
people benefiting	Females - Number	0	6000	15000	g	endline, annual			0	0	0	3000	0	0			
from cash or food-	Households - Number	0	6000	15000		ailiuai			0	0	0	3000	0	0			
based transfers	Households - Percentage (%)	0	22	54					0	0	0	11	0	0			
	Females - Percentage (%)	0	40	100					0	0	0	20	0	0			
	Young - Number	0	1500	3750					0	0	0	750	0	0			
Output 22,400 persons	1.1.4 Persons traine and/or technologies	d in produ	uction p	ractices	Project monitorin g	Baseline, midline, endline,	NPCO	Village Agriculture Technicians,						0			
trained in production practices and/or technologie s	Total number of persons trained by the project - Number of people	0	8960	22400		annual		Village Veterinary Workers and Lead farmers deliver effective last mile advisory	0	0	0	2000	0	0			
	Men trained in crop - Males	0	2240	5600				services to APG members	0	0	0	500	0	0			
	Women trained in crop - Females	0	2240	5600				with support from DAFO	0	0	0	500	0	0			
	Young people trained in crop - Young people	0	1120	2800								0	0	0	250	0	0
	Indigenous people trained in crop - Indigenous people	0	3136	7840					0	0	0	700	0	0			
	Men trained in livestock - Males	0	2240	5600					0	0	0	500	0	0			
	Women trained in livestock - Females	0	2240	5600					0	0	0	500	0	0			

	Young people trained in livestock - Young people	0	1120	2800					0	0	0	250	0	0
	Indigenous people trained in livestock - Indigenous people	0	3136	7840					0	0	0	700		0
	Total persons trained in crop - Number of people	0	4480	11200					0	0	0	1000	0	0
	Total persons trained in livestock - Number of people	0	4480	11200					0	0	0	1000	0	0
Output 10,000 farmers receiving inputs or	Number of farmers re on climate resilient of practices (GAFSP Tie	or sustain	able agr	l services iculture	Project monitorin g	Baseline, midline, endline, annual	NPCO	Village Agriculture Technicians, Village Veterinary						
services on climate	Males - Number	0	2400	6000				Workers and Lead farmers	0	0	0	1200	0	0
resilient or sustainable	Females - Number	0	1600	4000				deliver effective last	0	0	0	800	0	0
agriculture practices	Males - Percentage (%)	0	24	60				mile advisory services to	0	0	0	12	0	0
	Females - Percentage (%)	0	16	40				members with support from DAFO	0	0	0	8	0	0
	Households - Number	0	4000	10000				nom Bru O	0	0	0	2000	0	0
	Households - Percentage (%)	0	14	35					0	0	0	8	0	0
Output 28,000	3.1.4 Land brough practices	t under	climate-	resilient	Project monitorin	Baseline, midline,	NPCO							0
hectares of land brought under climate-resilient manageme nt	Hectares of land - Area (ha)	0	1400	28000	g	endline, annual			0	0	0	0	0	0

Output	2.1.3 Rural producers	s' organiza	ations su	pported	Project monitorin	Midline, endline.	NPCO							
1,000 producer- based organization	Total size of POs - Organizations	0	1000	25000	g	annual			0	0	0	900	0	0
s supported	Rural POs supported - Organizations	0	400	1000					0	0	0	45	0	0
	Males - Males	0	5000	12500					0	0	0	450	0	0
	Females - Females	0	5000	12500	-				0	0	0	450	0	0
	Young - Young people	0	2500	6250					0	0	0	225	0	0
	Indigenous people - Indigenous people	0	7000	17500					0	0	0	630	0	0
	Rural POs supported that are headed by women - Organizations	0	160	400					0	0	0	15	0	0
Output 15,000 persons receiving	Persons receiving support (GAFSP Tier	capacity 2 Indicate	y deve	lopment	Project monitorin g	Baseline, midline, endline, annual	NPCO	Technical staff (MAF- PAFO- DAFO-LWU-						
capacity developmen	Households - Number	0	8960	22400		ariiluai		DNC etc) is available for	NA	NA	NA	NA	NA	NA
t support	Households - Percentage (%)	0	32	80				capacity building activities	NA	NA	NA	NA	NA	NA
	Males - Number	0	6000	15000	-			activities	0	69	69	250		69
	Females - Number	0	6000	15000					0	30	30	250		30
	Males - Percentage (%)	0	20	50					0	69.7	69.7	50		69.7
	Females - Percentage (%)	0	20	50					0	30.3	30.3	50		30.3
	Young - Number	0	3000	7500	1				0	22	22	125		22
Outcome 3. Business Partnership	2.2.6 Households re access to markets, facilities	porting im processi	proved p	ohysical storage	Project monitorin g	Midline, endline, annual	NPCO							

s and Market access improved	Households reporting improved physical access to markets - Percentage (%)	0	9	21					0	0	0	0	0	0
	Size of households - Number of people	0	4500 0	10800 0					0	0	0	0	0	0
	Households reporting improved physical access to processing facilities - Percentage (%)	0	9	21					0	0	0	0	0	0
	Households reporting improved physical access to storage facilities - Percentage (%)	0	9	21					0	0	0	0	0	0
	Households reporting improved physical access to markets - Households	0	2500	6000					0	0	0	0	0	0
	Households reporting improved physical access to processing facilities - Households	0	2500	6000					0	0	0	0	0	0
	Households reporting improved physical access to storage facilities - Households	0	2500	6000					0	0	0	0	0	0
Output 600 Rural producers'	Rural producers' of formal agreement wit			ged in	Project monitorin g	Baseline, midline,	NPCO	MSMEs willing to invest with						

organization s engaged in formal	Number of POs - Number	0	200	600		endline, annual		adequate support and financing	0	0	0	0	0	0
partnership s / agreements	Total Number of POs members - Number	0	6000	15000					0	0	0	0	0	0
or contracts with public or private	Women PO members - Number	0	3000	7500					0	0	0	0	0	0
entities	Men PO members - Number	0	3000	7500					0	0	0	0	0	0
	Young PO members - Number	0	1500	3750					0	0	0	0	0	0
	IP PO members - Number	0	4200	10500					0	0	0	0	0	0
Output	2.1.6 Market, proces	ssing or s	torage f	acilities	Project	Baseline,	NPCO	Business						
500 processing,	constructed or rehabited Total number of		250	500	monitorin g	midline, endline,		plans are profitable and	0	0	0	0	0	0
storage, and market	facilities - Facilities					annual		sustainable in the foreseen						
facilities constructed and/or rehabilitated	Market facilities constructed/rehabilit ated - Facilities	0	50	100				macro- economic context.	0	0	0	0	0	0
	Processing facilities constructed/rehabilit ated - Facilities	0	50	100					0	0	0	0	0	0
	Storage facilities constructed/rehabilit ated - Facilities	0	150	300					0	0	0	0	0	0
Output 50 SMEs joining the	Number of SMEs jo Network as new mem		SUN B	usiness	Project monitorin g	Baseline, midline, endline,	NPCO							
SUN Business Network as new members	Number of SMEs joining - Number	0	20	50		annual			0	0	0	0	0	0
	Multisectoral planning	g processe	es suppo	orted			NPCO							

Outcome 4. Enabling environmen t	District Nutrition Committees endorsing village nutrition plans - Number	0	8	20	Project monitorin g	midline, endline, annual		Nutrition committees active and committed to the nutrition policy implementati on.	0	0	0	75	5	5
Output 30 policy-	Policy 1 Policy-releved	ant know	ledge p	roducts	Project monitorin	midline, final	NPCO							
relevant knowledge products completed	Number - Knowledge Products	0	12	30	g	evaluatio n			0	0	0	0	0	0

# **Summary of the original Economic and Financial Analysis**

Given that the Additional Financing will cover intervention costs under the financing gap identified at design, the Economic and Financial Analysis (EFA) of the original Project Design Report remains valid and relevant, and no further changes are expected.

The primary source of economic benefit identified for the project is derived directly from Sub-components 1a and 1b and Component 2. The rest of the project activities work to create an enabling environment for the project to achieve the intended economic benefit.

Table A

Primary source of economic benefits of the project

Component	Sub-component	Activity	Model
Component 1: Establishment of community-driven agriculture- and natural resource- based nutrition interventions	Subcomponent 1.1: Improved nutritional status of women, children, girls and other vulnerable groups	Integrated home garden establishment	Integrated home garden for nutrition
interventions	Subcomponent 1.2: Improvement of	Community-based organizations	Poultry raising
	agricultural productivity for selected commodities	strengthening	Pig raising
			Goat raising
			Cardamom farm
			Galangal farm
			Forage farm
			Fish culture
			Banana farm
			Vegetables under greenhouse
		Climate change adaptation	Irrigation (wet season rice)
		infrastructures built and upgraded	Irrigated crop diversification
Component 2: Improvement of business		Support to MSMEs in food supply chains	Banana processing
partnerships and market access		Market related infrastructures	Access to tracks
			Water supply

The AFN II project is planned over 7 years. The financial analysis is considered over a 10-year lifetime, although most project results would be expected to last longer if properly sustained. The results of the financial analysis show that overall the proposed activities are highly profitable with positive NPVs at a discount rate of 10%, and all

proposed activities have a positive impact on food security at the project level for household beneficiaries. Poultry raising, goat raising and irrigation wet season rice and diversification models are the most profitable and less risky activities for target beneficiaries.

The main summary tables of the EFA are provided below.

Table B
Financial cash flow models

No.	Model	Working Capital requirement	Subsidy	Own Saving	Borrow	Annual Cash flow
1	Irrigation wet Season Rice and Diversification	11 768 000	3 600 000	4 900 800	3 267 200	266 368 600
2	Pig raising	18 300 000	3 600 000	8 820 000	5 880 000	89 388 000
3	Goat raising	10 550 000	3 600 000	4 170 000	2 780 000	83 783 000
4	Poultry raising	10 312 500	3 600 000	4 027 500	2 685 000	83 424 750
5	Vegetables under greenhouse	3 200 000	3 600 000			68 500 000
6	Banana	8 900 000	3 600 000	3 180 000	2 120 000	68 382 000
7	Cardamom	101 300 000	3 600 000	58 620 000	39 080 000	54 838 000
8	Fish culture	4 530 000	3 600 000	558 000	372 000	45 094 200
9	Galangal	3 580 000	3 600 000			43 570 000
10	Irrigation wet Season Rice	4 008 000	3 600 000	244 800	163 200	23 560 520
11	Forage	4 300 000	3 600 000	420 000	280 000	15 658 000
12	Integrated home garden grants	3 100 000	1 800 000	780 000	520 000	9 454 000

Table C
Project costs and logframe targets

Target		Number
Number of the target farme	er	58 000
	Poultry raising	6 500
	Goat raising	4 000
	Irrigation diversification wet Season Rice	6 000
	The rest	41 500
Access tracks: # of line of	4Km road	75
Water supply (MUS): # fac	ility with 30HH	399
SME Processing (company	y)	50

Table D

Main assumptions and shadow prices

	Outputs	Cycles per year	Mortality rate	Yield without project	Yield with project	Output prices	Input price	es .
	Poultry	3	30%				Veterinary expense	100 000 LAK
	Adult chicken sales			180 kg	350 kg	55 000 LAK	Feed (rice bran)	2 000 LAK/kg
	Eggs sales			0 unit	220 units	1 500 LAK	Animal feed (for chicken)	7 500 LAK/kg
	Pig	2	30%				Parent chickens	100 000 LAK/head
	Adult pig sales (40 kg)			100 kg	200 kg	35 000 LAK	Animal feed (for pig)	10 000 LAK/kg
	Piglets sales			100 kg	200 kg	100 000 LAK	Piglet	1 000 000 LAK/head
	Adult goat sales (25 kg)	2	20%	40 kg	500 kg	45 000 LAK	Parent chickens	100 000 LAK/head
	Fish sales (tilapia)	1	20%	150 kg	300 kg	25 000 LAK	Adult goat	1 200 000 LAK/head
	Fresh cardamom	1		200 kg	500 kg	40 000 LAK	Grass seed	30 000 LAK/kg
	Galangal	1					Fingerling	500 LAK/head
	Dry galangal sales			140 kg	300 kg	25 000 LAK	Cardamom seedling	50 000 LAK/plant
	<ul> <li>Fresh galangal sales</li> </ul>			80 kg	200 kg	2 000 LAK	Galangal seedling	10 000 LAK/plant
<b>'</b> 0	Banana	1					Skilled labour (paid)	80 000 LAK/day
otions	Banana sales			3 000 kg	7 500 kg	2 000 LAK	Family labour	48 000 LAK/day
sums	<ul> <li>Banana shoot sales</li> </ul>			20 pieces	50 pieces	4 000 LAK	Banana shoots	150 000 LAK/piece
Financial assumptions	Banana blossom and leaf sales			40 pieces	100 pieces	3 000 LAK	Manure	1 000 LAK/kg
anc	Fresh vegetable sales	2		1 000 kg	2 300 kg	6 000 LAK	Seeds (vegetables)	25 000 LAK/kg
Fin	Wet paddy	1					Fertilizer	50 000 LAK/kg

	Wet paddy sales			2 000 kg	2 500 kg	2 500 LAK	Seeds (rice)	2 800 LAK/kg
	Rice bran sales			100 kg	500 kg	2 500 LAK	Soil tillage	100 000 LAK
	Dry season crops	1					Land preparation (garlic, peanut)	500 000 LAK
	Garlic sales			500 kg	700 kg	15 000 LAK	Chemical applications	500 000 LAK
	Peanut sales			1 500 kg	2 000 kg	10 000 LAK		
S	Exchange rate		1	5 033	Discou	nt rate	10%	
omic nptions	Standard Conversion F	-actor		0.985	Cost inc	crease	20%	
<b>Economic</b> assumptic	Loan annual interest	rate		36%	Income	decline	20%	

Table E
Beneficiary adoption rates and phasing

No.	Project years	1	2	3	4	5	6	7
1	Integrated home garden grants		6 000	4 500	4 500			
2	APG Poultry raising		2 600	1 950	1 950			
3	APG Pig raising		1 600	1 200	1 200			
4	APG Goat raising		1 600	1 200	1 200			
5	APG Cardamom		800	600	600			
6	Galangal		680	510	510			
7	APG Forage		680	510	510			
8	APG Fish culture		680	510	510			
9	APG Banana		680	510	510			
10	Vegetables under greenhouse		680	510	510			
11	Irrigation Wet Season Rice		4 800	3 600	3 600			
12	Irrigation Wet Season Rice and Diversification		2 400	1 800	1 800			

13	Access tracks: # of line of 4Km					
	road		25	25	25	
14	Water supply (MUS): # facility with					
	30HH	133	133	133		
15	Banana Processing (company)	20	15	15		

Table F
Economic cash flow

The cash flow analysis confirms that all activities generate positive cash flows annually. The subsidy from the project is LAK 3 600 000 per household. All models are financially viable for the target beneficiaries. Irrigation Wet Season Rice and Diversification generates the highest annual cash flow.

No.	Model	WC requirement	Subsidy	Own Saving	Borrow	Annual Cash flow
1	Irrigation wet Season Rice and Diversification	11 768 000	3 600 000	4 900 800	3 267 200	266 368 600
2	Pig raising	18 300 000	3 600 000	8 820 000	5 880 000	89 388 000
3	Goat raising	10 550 000	3 600 000	4 170 000	2 780 000	83 783 000
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11	Forage	4 300 000	3 600 000	420 000	280 000	15 658 000
12	Integrated home garden grants	3 100 000	1 800 000	780 000	520 000	9 454 000

Table G

Sensitivity analysis

Situation	NPV ('000 000 LAK)	NPV ('000 US\$)	ERR
Base scenario	507,621	34,281	26%
Cost increase 28%	183,655	12,402	15%
Revenue decrease: 17%	160,878	10,864	15%
11% Cost increase and 10% Revenue decrease	176,383	11,911	15%
Project delay 1 year:	391,220	26,420	21%
Situation	NPV ('000 000 LAK)	NPV ('000 US\$)	ERR
Base scenario	507,621	34,281	26%
Cost increase 28%	183,655	12,402	15%
Revenue decrease: 17%	160,878	10,864	15%
11% Cost increase and 10% Revenue decrease	176,383	11,911	15%
Project delay 1 year:	391,220	26,420	21%