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Enabling poor rural people
to overcome poverty

President's report

Proposed loan and grants to the Kyrgyz Republic for the

Livestock and Market Development Programme II

Note to Executive Board representatives

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For: Approval

Contents

Abbreviations and acronyms	ii
Map of the programme area	iii
Financing summary	iv
Recommendation for approval	1
I. Strategic context and rationale	1
A. Country and rural development and poverty context	1
B. Rationale and alignment with government priorities and RB-COSOP	2
II. Programme description	3
A. Programme area and target group	3
B. Programme development objective	4
C. Components/outcomes	4
III. Programme implementation	5
A. Approach	5
B. Organizational framework	6
C. Planning, monitoring and evaluation, and learning and knowledge management	6
D. Financial management, procurement and governance	6
E. Supervision	7
IV. Programme costs, financing, benefits	7
A. Programme costs	7
B. Programme financing	7
C. Summary benefit and economic analysis	8
D. Sustainability	8
E. Risk identification and mitigation	8
V. Corporate considerations	9
A. Compliance with IFAD policies	9
B. Alignment and harmonization	9
C. Innovations and scaling up	9
D. Policy engagement	9
VI. Legal instruments and authority	9
VII. Recommendation	10
Annex	
Negotiated financing agreement	11
Appendix	
Logical framework	

Abbreviations and acronyms

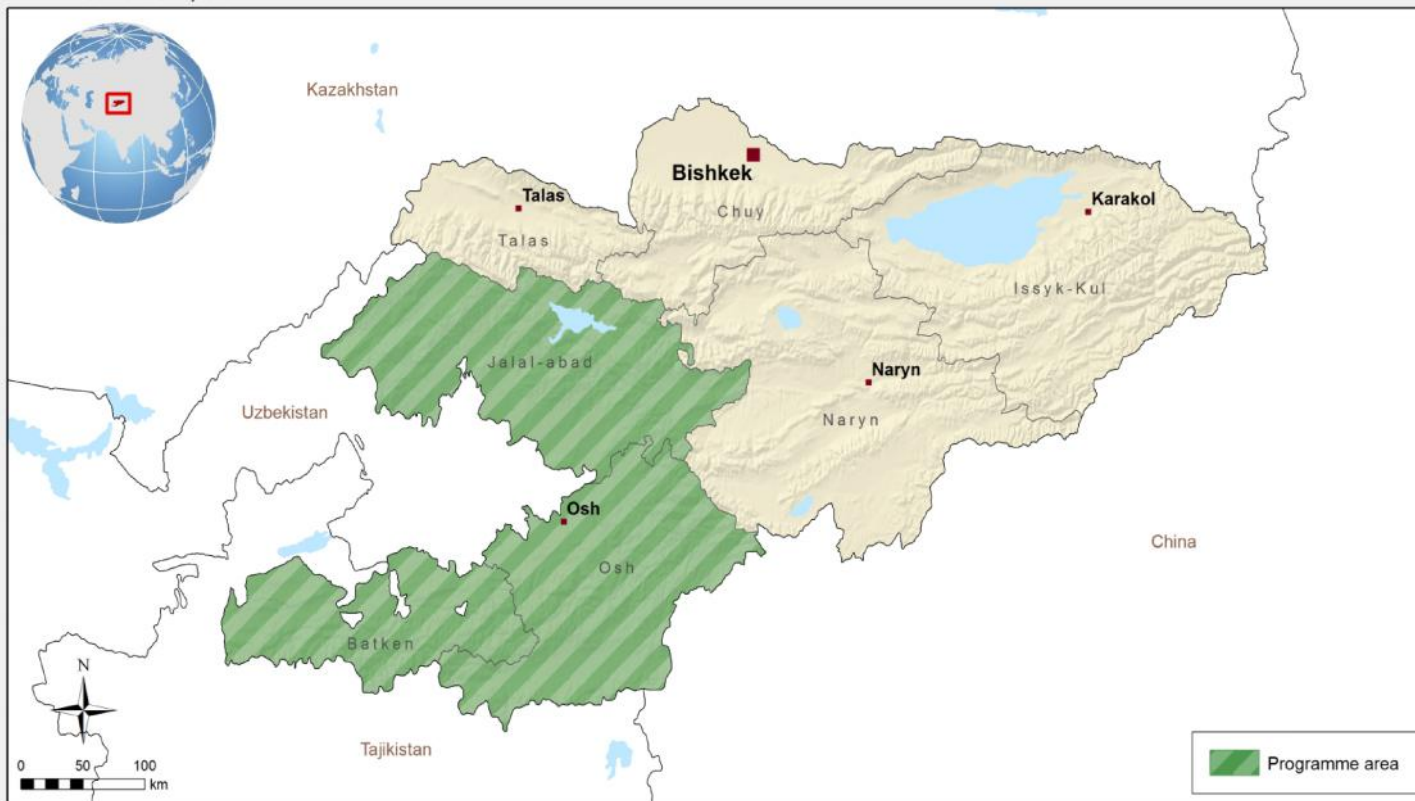
AISP	Agricultural Investments and Services Project
APIU	Agricultural Projects Implementation Unit
ARIS	Community Development and Investment Agency
ASAP	Adaptation for Smallholder Agriculture Programme
CPMP	community pasture management plan
LMDP	Livestock and Market Development Programme
M&E	monitoring and evaluation
PUU	pasture users' union

Map of the programme area

Kyrgyz Republic

Livestock and Market Development Programme II (LMDP II)

President's report



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 | 02-10-2013

Kyrgyz Republic

Livestock and Market Development Programme II

Financing summary

Initiating institution:	IFAD
Borrower/recipient:	Kyrgyz Republic
Executing agency:	Ministry of Agriculture and Melioration
Total programme cost:	US\$39.5 million
Amount of IFAD loan:	SDR 7.2 million (equivalent to approximately US\$11.0 million)
Amount of IFAD grant:	SDR 7.2 million (equivalent to approximately US\$11.0 million)
Amount of IFAD Adaptation for Smallholder Agriculture Programme (ASAP) Trust Fund grant:	SDR 6.5 million (equivalent to approximately US\$10.0 million)
Terms of IFAD loan:	40 years, including a grace period of 10 years, with a service charge of three fourths of one per cent (0.75 per cent) per annum
Cofinancier:	Republican Association of Pasture Users' Unions
Amount of cofinancing:	US\$0.2 million
Contribution of borrower:	US\$0.3 million
Contribution of beneficiaries:	US\$7.1 million
Appraising institution:	IFAD
Cooperating institution:	Directly supervised by IFAD

Recommendation for approval

The Executive Board is invited to approve the recommendation for the proposed financing to the Kyrgyz Republic for the Livestock and Market Development Programme II, as contained in paragraph 40.

Proposed loan and grant to the Kyrgyz Republic for the Livestock and Market Development Programme II

I. Strategic context and rationale

A. Country and rural development and poverty context

1. Kyrgyzstan is a mountainous, landlocked country of 198,500 square kilometres bordering on Kazakhstan, Uzbekistan, Tajikistan and China. Pasture land represents nearly half of the country's total land area – some 9 million hectares – and plays a key role in its economy, society and culture. The country has a population of about 5.5 million people, 65 per cent of whom live in rural areas and depend predominantly on crop and livestock production for their livelihoods, although remittances and welfare are also important income supplements. Life expectancy for men is 65 years and for women 73 years.
2. Political instability in Kyrgyzstan in 2005 and 2010 had a negative impact on economic growth. While GDP growth averaged 5 per cent between 2003 and 2010, GDP shrank by 2 per cent and 1.4 per cent in 2005 and 2010 respectively. With improvements in the political and security situation, the Kyrgyz economy recovered from recession, experiencing broad-based growth of 5.7 per cent in 2011, which, however, contracted to 0.9 per cent in 2012. Inflation also decreased from 19.2 per cent in 2010 to 5.7 per cent in December 2011 and to 2.7 per cent in 2012.
3. Although nearly two thirds of the population are rural, and 31 per cent of the total workforce work in the agriculture sector, agriculture contributes only 21 per cent of total GDP – down from 34 per cent in 2002. Nonetheless, agriculture (and particularly livestock) remains the backbone of the economy, providing substantial employment, playing a critical role in household food security and consumer price stability, and serving as a leading source of exports.
4. The rural population are heavily dependent on the productivity and conservation of pastures – both as a source of income and as a social safety net for poor households. Pasture conditions deteriorated during the Soviet era with the extremely intensive use of pastures. Further declines have occurred more recently, with village and close-in (winter) pastures being severely overused and degraded, while the more remote summer pastures are underutilized as a result of poor access, which is often caused by deteriorating infrastructure. Compounding this, parasites and major diseases, such as brucellosis, echinococcosis and foot-and-mouth disease, are widespread. The health of animals has deteriorated with the reduction in veterinary services from Soviet times and there is now a considerably reduced veterinary service, although attempts are being made to strengthen the service, primarily through support to private veterinarians and the capacity development of community veterinarians.
5. Kyrgyzstan is a low-income country with a GNI per capita of US\$990 (2012, Atlas method). By income level, it ranks as the second lowest in the Europe and Central Asia region after Tajikistan. As a result of broad post-independence economic reforms, poverty in the country declined significantly and rapidly from 2000 to

2008. The official poverty estimates (which were based on expenditure per capita) decreased from 52 per cent of the population in 2000 to 41 per cent in 2003 and 32 per cent in 2009. However, political crises and instability since 2010 have negatively affected economic growth and cancelled some gains in population well-being, with poverty climbing to 33 per cent in 2010, 37 per cent in 2011 and 38 per cent in 2012. Extreme poverty rates rose by 2.2 percentage points between 2009 and 2010, reaching 5.3 per cent in 2010, and then dropping slightly to 4.5 per cent in 2011.

6. Kyrgyzstan is ranked 126th out of 187 countries in the United Nations Development Programme's Human Development Index (2011). It is classified as a low-income country and also a food-deficit country as it depends on wheat imports to cover about one quarter of its consumption requirements. Poverty is broadest and most severe in rural and mountainous regions. In 2012, Jalal-abad, Osh, Naryn, Batken and Issyk-Kul regions (*oblasts*) had the greatest concentrations of poverty with 56 per cent, 51 per cent, 40 per cent, 40 per cent and 28 per cent respectively – compared with the national average of 38 per cent. Similarly, the incidence of extreme poverty in these five regions was 14.1 per cent, 2.3 per cent, 2.5 per cent, 0.9 per cent and 0.1 per cent respectively – compared with the national average of 4.4 per cent. Inequality is also increasing, particularly among the rural populations, and food insecurity is a growing problem. Individual households have developed strategies to address poverty – traditionally involving livestock ownership but more recently involving labour migration (particularly to nearby countries such as Kazakhstan and the Russian Federation). With a growing number of migrants in search of work, the prevalence of woman-headed households has been increasing, reaching 32 per cent in 2011 according to the World Food Programme.
7. The geography and topography of Kyrgyzstan make it one of the most vulnerable countries in Central Asia to climate change impacts. Hazards such as drought, landslides and mudslides, floods and river erosion are all common occurrences, and are becoming more frequent and intense with climate change. The vast majority of the population live in the valleys and foothills of the mountains, where vulnerability to these processes is particularly high. Decreased pasture productivity, heat stress and reduced access to water, all possible risks, could cause a reduction in livestock productivity and an increase in disease incidence.

B. Rationale and alignment with government priorities and RB-COSOP

8. A number of programmes and projects, such as IFAD/World Bank-cofinanced Agricultural Investments and Services Project (AISP), have demonstrated that, with the right combination of activities and incentives, substantial improvements can be made in the livestock sector. There is a strong need to consolidate and scale up the work of AISP. This will involve expanding the work to areas such as the preparation and delivery of animal health plans and winter feeding plans; investing in a range of infrastructure and other activities that will unlock the potential of the pastures and livestock; and developing links to the market so as to increase the capacity of the sector to improve the economic status of livestock producer households.
9. The close link between livestock productivity and the rational and efficient use of pastures requires a concurrent focus on the pasture/natural resource management aspects of livestock production. This, in turn, requires an effort to mainstream climate change adaptation into livestock and pasture management given the extreme vulnerability of this sector. Despite widespread evidence that climate change-related hazards are increasingly affecting the livestock sector, the response of the international community and climate finance has so far been mostly limited to pilot initiatives. There is thus a strong argument for the proposed Livestock and Market Development Programme II (LMDP-II) to benefit from an Adaptation for Smallholder Agriculture Programme (ASAP) Trust Fund grant. The programme will

work on reducing climate risk through the introduction of an early warning system; ensure that community action plans are developed to respond to the results of climate vulnerability assessments; identify new opportunities emerging in a changing climate; and support research for increased pasture production and reduction of post-harvest losses.

10. The programme is strongly aligned with, and contributes to, the priorities of Kyrgyzstan's Second National Communication under the United Nations Framework Convention on Climate Change, which identifies agriculture (including livestock) as one of the four areas most vulnerable to climate change. The programme is also aligned with other relevant national policy documents and initiatives, including: Kyrgyzstan's Strategy on Adaptation to Climate Change until 2020 (2013) and the National Strategy for Sustainable Development 2013-2017.
11. The programme builds on the experiences and policies of other international agencies and major stakeholders, including, (i) the Global Environment Facility/United Nations Development Programme-financed Demonstrating Sustainable Mountain Pasture Management in the Susamyr Valley project, (ii) the German Agency for International Cooperation's Sustainable Pasture Management in Central Asia Programme and its Sustainable Use of Natural Resources in Central Asia Programme; and (iii) the Aga Khan Foundation's Mountain Societies Development Support Programme. During implementation, the programme will actively seek synergies and complementarities with these and other agencies involved in livestock/pasture management, climate change and disaster risk reduction. Opportunities will also be identified to link to the Accelerating Progress toward the Economic Empowerment of Rural Women Programme, a joint initiative of IFAD, the Food and Agriculture Organization of the United Nations, the World Food Programme and the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women).

II. Programme description

A. Programme area and target group

12. The programme area comprises three southern regions of the country – Batken, Jalal-abad and Osh. These regions are contiguous and additional to the regions covered in LMDP-I (Issyk-Kul and Naryn), and extend to the west, bordering with Tajikistan and Uzbekistan. Together the three regions have a combined area of almost 80,000 square kilometres, and a total population of about 2.9 million. Livestock production is a central economic activity of the three provinces, which together account for 51 per cent of the nation's cattle population, 47 per cent of its sheep and goat population, and 36 per cent of its horse population.
13. The programme target group comprises:
 - (a) **Vulnerable households.** These will primarily be the households of small livestock producers, who are among the poorer segments of the population and are susceptible to shocks and to the increased natural hazards and extreme events brought about by climate change.
 - (b) **Woman-headed households.** Due to the rise in the migration of men, woman-headed households are becoming increasingly prevalent. They are often constrained in terms of labour to manage their livestock and carry out basic agricultural activities.
 - (c) **Other livestock producer households.** These households are not generally classified as vulnerable but nevertheless form part of the programme's target population.
 - (d) **Community veterinarians.** While community veterinarians represent only a small portion of the livestock producer community, they are an integral and

important part of this community and will be the focus for many of the programme's animal health and productive initiatives.

B. Programme development objective

14. The programme's goal is to contribute to the reduction in poverty and enhanced economic growth in pasture communities. Its development objective is improved livestock productivity and enhanced climate resilience of pasture communities reflected in improved and equitable returns to livestock farmers.

C. Components/outcomes

15. The programme has three components:

- (a) **Component 1: Community-based pasture management and vulnerability reduction.** This component will take advantage of the conducive environment provided by the country's 2009 pasture law, its national emergency response activities and its climate change adaptation policies, and will support pasture users' unions (PUUs) and pasture committees in the design, development and implementation of community-based pasture management plans. The plans will fully integrate animal health activities and adaptation and disaster risk-reduction measures to enhance the resilience of this sector to climate change. Expected outcomes will be more productive and climate-resilient pastures, and increased supplementary feed available to community livestock. The programme is designed around vulnerability reduction and restoration of natural assets. It supports corresponding technical assistance and training activities, promotion of policy dialogue and the strengthening of knowledge management.
- (b) **Component 2: Animal health and production services.** The programme will establish an effective private veterinary service through: (i) additional support and training to ensure that community veterinarians are self-sustaining and delivering an effective demand-driven service; (ii) the promotion of the profession and incentives to ensure that young people are motivated to take up the work of private veterinarians as a viable career in the current economy; and (iii) support to the transition of community veterinarians from service providers for basic animal health prevention to more holistic advisers on both veterinary aspects and production management practices. Based on the lessons learned from previous programme interventions and an evolving situational analysis, and taking into account the coverage planned in the forthcoming World Bank-funded Pasture Management Improvement Project, the programme will address current constraints through a set of specific activities built into two subcomponents: (i) strengthening veterinary and community animal health services; and (ii) animal health education and capacity-building. The outcome of this component will be healthier livestock with lower levels of mortality.
- (c) **Component 3: Diversification and market/value chain initiatives.** The rationale for this component is the need to promote the diversification of income sources in order to support rural livelihoods and build socio-economic resilience by reducing the risk of income loss caused by climate change. The programme will encourage and nurture new enterprises, through which the weakest segments of the rural society – mainly women – can build upon, improve, and expand existing value chains and develop additional sources of income, becoming service providers for the wider community. The objective of the component is to enable livestock producers in the programme area to expand their milk production to meet market demand, thereby achieving improved returns from their dairy animals, and to introduce a set of additional viable income-generating activities that will increase the resilience of poor vulnerable groups. The approach is to work on a relatively limited scale, with

groups of livestock producers and communities within the PUUs and to facilitate their development as business/market groups.

- (d) **Component 4: Project management.** Overall project management will be undertaken by the Agricultural Projects Implementation Unit (APIU) under the Ministry of Agriculture and Melioration (generally referred to as the Ministry of Agriculture). The component provides for the operation of the APIU management office in Bishkek and includes financing for upgrading office equipment, mobility, communications, staffing and other operating costs. A separate provision has been made for monitoring and evaluation (M&E) and additional support will be provided for knowledge management. These activities complement those carried out under LMDP-I, thus the project management costs, including the provision made for M&E, represent only about 2 per cent of total costs.

III. Programme implementation

A. Approach

16. LMDP-II is largely a geographical expansion of LMDP-I, from northern Naryn and Issyk-Kul regions to three of the country's southern regions, namely Batken, Jalal-abad and Osh. The programme also incorporates approaches and arrangements for climate change adaptation thanks to the availability of ASAP financing. Although LMDP-I provided opportunities in terms of better pasture management at community and national levels, it did not explicitly take into account the possible impacts of climate change in its priorities for long-term investments in improving pastures and ensuring the sustainable development of this sector. LMDP-II will mainstream adaptation priorities within community pasture management plans (CPMPs) and subsequent investments to enhance community resilience.
17. A vulnerability assessment undertaken during the programme design phase identified a preliminary set of adaptive measures to reduce climate risks for livestock and pastures and increase the resilience of smallholder herders in Kyrgyzstan. In this respect, the programme will ensure that climate change adaptation priorities are integrated within the CPMPs in all the LMDP-I and LMPD-II programme areas.
18. The programme approach is based on community-driven development to enhance adaptive capacity, reduce climate-induced risk and reduce poverty. The core of the programme and the focus for many of its activities are the pasture committees and the PUUs. These institutions will play a pivotal role in organizing and carrying out the participatory planning process that will be the basis for refining the risk-mitigating CPMPs. The plans will involve the development of a new animal health management plan, linked to the animal health subcommittees of the pasture committees to be established under the programme. The plans will therefore provide the basis for improving the pastures and how they are managed, with a view to making them more sustainable and resilient. Similarly, the plans will provide the framework for increasing the availability of feed, especially winter feed, which will be supported by the programme through a community seed fund initiative. The same planning process will be used to identify, prioritize, and agree on, the investment projects that will be financed by the programme in each pasture committee/PUU. These investments will complement the other initiatives included in the CPMPs. Finally, the planning process will be the starting point for the identification of groups of livestock producers, both women and men, who would like to start a milk collection and cooling centre or a women's milk-processing facility, or engage in additional income-generating activities to improve their adaptive capacities.
19. Another pivotal element in the programme approach is the focus on developing the capacity and financial sustainability of community veterinarians. These

veterinarians form the front line for the provision of advice (both veterinary and production advice) and support to livestock producers. They replace the old Soviet-era public veterinary service but there is still considerable scope for strengthening their services and linking them more closely with the pasture committees and their animal health subcommittees.

B. Organizational framework

20. The two institutions that have been the key to the successful implementation of AISP and other projects will be the programme's main implementers: the Agricultural Projects Implementation Unit (APIU) under the Ministry of Agriculture and Melioration; and the Community Development and Investment Agency (ARIS), a large organization with outreach on the ground that focuses particularly on community-based initiatives and has a mandate to alleviate poverty. The APIU will have overall responsibility for programme implementation, coordination, oversight and reporting to IFAD and the Government at the national level. ARIS will have overall responsibility for programme implementation at the community level, including management of programme grant funds. ARIS will be accountable to the APIU for programme performance, including financial aspects. This accountability will be appropriately detailed in a legal document between the two agencies, in a form and substance acceptable to IFAD.

C. Planning, monitoring and evaluation, and learning and knowledge management

21. The proposed monitoring and evaluation (M&E) system, and associated management information system, will provide comprehensive information for effective and efficient programme management, assess programme impact on adaptive capacity, and contribute to the ability of all stakeholders to learn from the programme implementation experience. The knowledge management systems and processes will be put in place at programme start, with the APIU M&E, gender and knowledge management team developing a knowledge management strategy, using the IFAD Knowledge Management Strategy as a point of reference. The programme learning systems will involve learning notes on programme implementation, a semi-annual newsletter on good practices, study tours and "learning routes". Knowledge management training sessions and thematic workshops will be organized on a yearly basis for key programme staff.

D. Financial management, procurement and governance

22. The programme's financial management arrangements will build on the experience gained by the implementing institutions in fulfilling their duties in financial management under AISP and LMDP I. The quality of programme accounts, audits, procurement and disbursement have been satisfactory and fully compliant with the financial management rules and regulations of IFAD. The same financial accounting arrangements will continue for this programme.
23. The Ministry of Finance will open and maintain two designated accounts in United States dollars for the APIU and ARIS respectively in a commercial bank acceptable to IFAD. The directors of APIU and ARIS will be authorized to operate these accounts. The designated accounts will receive funds from the IFAD loan, IFAD grant and the ASAP grant respectively in advance to be used to finance the IFAD/ASAP share of programme expenditures. To track the income and expenditures/ transactions and to enable accurate reconciliations of the designated accounts, the APIU and ARIS will set up and maintain separate ledgers for each financing source (the IFAD loan, the IFAD grant and the ASAP grant).
24. The funds will flow from IFAD separately and directly to the APIU and to ARIS, with each having responsibility for fund management and application as per agreed work programmes and budgets. The execution of legal documents between the APIU and ARIS will be a condition for disbursement of funds to ARIS.

25. The Government will appoint an independent auditor acceptable to IFAD, under terms of reference cleared by IFAD. A consolidated set of financial statements for the programme, covering both APIU and ARIS transactions, will be audited and submitted to IFAD in accordance with the IFAD Guidelines on Project Audits.

E. Supervision

26. The programme will be directly supervised by IFAD. One full supervision mission and one follow-up mission will take place per year coinciding with preparation of the annual workplans and budgets.

IV. Programme costs, financing, benefits

A. Programme costs

27. The total investment and incremental recurrent programme costs, including physical and price contingencies, are estimated at about US\$39.5 million. Physical and price contingencies are low at 1 per cent of the total programme costs; this is because investments associated with the various grants represent around 70 per cent of the total programme costs (expressed as a lump sum, no contingencies). The foreign exchange component is estimated at US\$1.6 million or about 4 per cent of the total programme costs. Taxes and duties make up approximately US\$0.2 million.

Programme costs by component (Thousands of United States dollars)

Component	US\$	Percentage	
		Foreign exchange	Total costs
A. Community-based pasture management and vulnerability reduction			
• Community risk-mitigation pasture management and investments	30,994.4	1	79
• Pasture institutional strengthening	2,925.8	31	8
Subtotal	33,920.2	3	87
B. Livestock health and production services			
• Strengthening veterinary and community animal health services	1,870.4	2	5
• Animal health education and capacity-building	1,145.0	24	3
Subtotal	3,015.4	11	8
C. Diversification and market/value chain initiatives	1,225.0	1	3
D. Programme management			
• Programme management	760.7	13	2
• Monitoring and evaluation	82.8	4	–
Subtotal	843.5	12	2
Total baseline costs	39,004.1	4	100
Physical contingencies	266.5	2	1
Price contingencies	257.4	16	1
Total programme costs	39,527.9	4	101

B. Programme financing

28. IFAD will provide a loan of US\$11.0 million and a grant of US\$11.0 million (each representing 28 per cent of the programme costs), and an ASAP grant of US\$10.0 million (25 per cent of total programme costs). The Government's contribution is estimated at US\$0.3 million (0.6 per cent of programme costs). Beneficiaries will provide approximately US\$7.1 million (18 per cent) as cofinancing of the CPMPs and other grants. The Republican Association of Pasture Users' Unions will provide around 0.4 per cent of the programme costs.

C. Summary benefit and economic analysis

29. The main programme benefits will go to households in the 190 PUU areas that constitute the programme areas in the selected regions. Some 304,000 households will benefit directly and indirectly from the programme's interventions. The pasture management and animal health activities will reach a high proportion of the target population, with the largest part of programme investment going directly to the beneficiaries in the form of matching grants, training and technical assistance. Benefits will derive from: (i) increased pasture yields and less vulnerable pastures; (ii) increased feed crop yields and expanded cultivated feed crop area; (iii) improved resilience and capacity of smallholders for livestock and pasture management; (iv) reductions in livestock mortality and improved livestock productivity; (v) opportunities for better breed improvement and selection; and (vi) reduced risk through the installation of an early warning system to benefit pasture communities.
30. The economic analysis of the programme indicates that the programme is robust in economic terms. The analysis results in an economic rate of return of 26 per cent and a net present value of US\$47.0 million taken over 20 years, with the benefit stream based on the quantifiable benefits that relate directly to the activities undertaken following implementation of the components.

D. Sustainability

31. Through its design, the programme will give equal importance to environmental management, economic growth and the strengthening of social capital. A key programme focus is to develop the adaptive capacity of pasture committees/PUUs, enabling them to manage their pasture areas more effectively and sustainably, taking into account the predicted impacts of climate change on pastures and pasture communities in the country. The PUUs will be able to manage their CPMPs beyond programme completion due to increased fee collection. The pasture inventory (including mapping and carrying capacity) and the early warning system, coupled with training and the establishment of institutions, will provide a sustainable tool for adaptive management. Similarly, the interventions under the third component – which are business-focused and driven by market demand from the milk-processing plants and other market players – and the additional income-generating activities will also be sustainable as long as they are profitable.

E. Risk identification and mitigation

32. A number of risks were identified during the programme design process. Most have already been addressed; others are listed in the logical framework, but do not pose serious threats. However, the following are the main risks that may affect achievement of the programme goal and development objective, and their mitigating measures: (i) **elite capture**. There is a risk that a disproportionate amount of the gains from increased production and local-level processing will go to the better-off members of the pasture communities rather than the target group. The participatory planning process, which was already used in AISP and works with specific focus groups for vulnerable households, women and woman-headed households, will help address this risk; (ii) **financial sustainability of community veterinarians**. Difficulties could arise because some livestock producers may be reluctant to pay for veterinary services that were free during the Soviet period. The programme will assist community veterinarians in building up their businesses through technical and business training and the provision of veterinary materials and equipment, enabling them to provide professional services that livestock producers are willing to pay for; (iii) **extreme weather events**. Pasture productivity, hay yields and fodder crops are strongly influenced by climate conditions. Heat stress and other extreme events could lead to reduced livestock productivity and an increased incidence of disease. A vulnerability assessment was undertaken during design to guide programme activities that enhance adaptive

capacity. Pasture communities will have access to information regarding disaster risk through an early warning system; the design of the risk-mitigating CPMPs, the programme's subsequent investments and the introduction of pasture inventories and additional income-generating activities will further reduce the impact of this risk; and (iv) **market dynamics**. Two interconnected market-related risks are weak market linkages and exploitative markets/milk processors, and the inability to attract sufficient quantities of milk from producers on a regular basis. The risk is mitigated by the milk-processing plants having volunteered to take a financial stake in the proposed milk collection and cooling centres.

V. Corporate considerations

A. Compliance with IFAD policies

33. The programme complies with IFAD policies and strategies, in particular with IFAD's Strategic Framework 2011-2015, its Environment and Natural Resource Management Policy, its Private-sector Strategy, its Climate Change Strategy and its Policy for Gender Equality and Women's Empowerment. In line with IFAD's environmental assessment procedures, the programme has been classified as Category B.

B. Alignment and harmonization

34. The programme is fully aligned with the Country Development Strategy of the Kyrgyz Republic, particularly in its emphasis on raising farm productivity and incomes. In addition, all of the programme's animal health activities are consistent with and supportive of the implementation of the national animal disease control strategies. The programme was designed in close consultation with both bilateral and multilateral development partners active in the livestock sector, and provisions have been made to continue these consultations during programme implementation.

C. Innovations and scaling up

35. The programme is designed as a scaling-up of the interventions in community-based pasture management and animal health and nutrition successfully piloted by AISP. The programme will promote the implementation of the innovative approach to pasture management introduced by the 2009 pasture law, and support the development of a private community veterinary service based on a fee-for-service business model. The introduction of an early warning system for pasture users is a further innovative feature of the programme.

D. Policy engagement

36. The programme intends to influence policy dialogue on climate change adaptation/mitigation, disaster risk reduction and environmental sustainability that has been prompted in Kyrgyzstan by a broad range of national, international, governmental and non-governmental actors. The programme will focus its policy work on supporting the development of a sectoral adaptation plan on pastures and livestock, stemming from the overall national adaptation strategy that is being finalized. The programme is further expected to produce evidence-based contributions to policy dialogue on the implementation of the pasture law. Similarly, experience gained from the development of private veterinarians and the community veterinarian service is expected to inform the forthcoming revision of the veterinary law.

VI. Legal instruments and authority

37. A programme financing agreement between the Kyrgyz Republic and IFAD will constitute the legal instrument for extending the proposed financing to the borrower/recipient. A copy of the negotiated financing agreement is attached as an annex.

38. The Kyrgyz Republic is empowered under its laws to receive financing from IFAD and from the IFAD Adaptation for Smallholder Agriculture Programme (ASAP) Trust Fund, acting through IFAD in its capacity of the trustee.
39. I am satisfied that the proposed financing will comply with the Agreement Establishing IFAD and the Policies and Criteria for IFAD financing.

VII. Recommendation

40. I recommend that the Executive Board approve the proposed financing in terms of the following resolution:

RESOLVED: that the Fund shall provide a loan on highly concessional terms to the Kyrgyz Republic in an amount equivalent to seven million two hundred thousand special drawing rights (SDR 7,200,000), and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

RESOLVED FURTHER: that the Fund shall provide a grant to the Kyrgyz Republic in an amount equivalent to seven million two hundred thousand special drawing rights (SDR 7,200,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

RESOLVED FURTHER: that the Fund shall provide an ASAP grant to the Kyrgyz Republic in an amount equivalent to six million five hundred thousand special drawing rights (SDR 6,500,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

Kanayo F. Nwanze
President

Negotiated financing agreement:

"Livestock and Market Development Programme-II"

(Negotiations concluded on 15 November 2013)

IFAD Loan Number: _____

IFAD Grant Number: _____

ASAP Trust Grant Number: _____

Programme Title: Livestock and Market Development Programme-II (the "Programme")

The Kyrgyz Republic (the "Borrower/Recipient")

and

The International Fund for Agricultural Development (the "Fund" or "IFAD")

and

The Adaptation for Smallholder Agriculture Programme Trust Fund (the "ASAP Trust")

(each a "Party" and both of them collectively the "Parties")

WHEREAS, the Fund has concluded with the Borrower/Recipient a Financing Agreement which entered into force on 17 July 2013, whereby the Fund provides a loan and a grant each in the amount of six million five hundred thousand Special Drawing Rights (SDR 6 500 000) to the Borrower/Recipient for its implementation of the Livestock and Market Development Programme (the "LMDP-I Financing Agreement");

WHEREAS, the Executive Board of the Fund, at its 105th Session approved the establishment of the ASAP Trust;

WHEREAS, the Fund has agreed to extend a loan and a grant to the Borrower/Recipient for the purpose of financing the Programme, on the terms and conditions set forth in this Agreement; and

WHEREAS, on the basis of the above and other considerations, the ASAP Trust has agreed, subject to availability of resources, to extend a grant to the Borrower/Recipient for the purpose of increasing the financing in respect of the Programme, on the terms and conditions set forth in this Agreement,

NOW THEREFORE, the Parties hereby agree as follows:

Section A

1. The following documents collectively form this Agreement: this document, the Programme Description and Implementation Arrangements (Schedule 1), and the Allocation Table (Schedule 2).

2. The Fund's General Conditions for Agricultural Development Financing dated 29 April 2009 as may be amended from time to time (the "General Conditions"), are annexed to this Agreement, and all provisions thereof shall apply to this Agreement. For the purposes of this Agreement the terms defined in the General Conditions shall have the meanings set forth therein.

3. The Fund shall provide a loan (the "IFAD Loan") and a grant (the "IFAD Grant") and the ASAP Trust shall provide a grant (the "Trust Grant") to the Borrower/Recipient (collectively the "Financing"), which the Borrower/Recipient shall use to implement the Programme in accordance with the terms and conditions of this Agreement.

Section B

1. A. The amount of the IFAD Loan is seven million and two hundred thousand Special Drawing Rights (SDR 7 200 000).
B. The amount of the IFAD Grant is seven million and two hundred thousand Special Drawing Rights (SDR 7 200 000).
C. The amount of the Trust Grant is six million and five hundred thousand Special Drawing Rights (SDR 6 500 000).
2. The IFAD Loan is granted on highly concessional terms.
3. The Loan Service Payment Currency shall be USD.
4. The first day of the applicable Fiscal Year shall be 1 January.
5. Principal and service charge shall be payable on 15 May and 15 November.
6. Designated Accounts
 - (a) The Borrower/Recipient through its Ministry of Finance shall, in accordance with Section 4.04(d) of the General Conditions, open two Designated Accounts denominated in USD for the purposes of receiving the Financing proceeds to finance the Programme. One shall rest with the Agricultural Projects Implementation Unit (the "APIU") and the other with the Community Development and Investment Agency (the "ARIS").
 - (b) Separate ledgers shall be set up and maintained within each Designated Account for each of the IFAD Loan, the IFAD Grant and the Trust Grant.
7. There shall be Programme Accounts established in accordance with Section 7.02(b) of the General Conditions, to receive funds from the Designated Accounts.
8. The Borrower/Recipient shall bear all taxes that may be due in connection with the Programme.

Section C

1. The Lead Programme Agency shall be the Ministry of Agriculture and Melioration (the "MOAM") of the Borrower/Recipient, or its successor, acting through the APIU.
2. The following, inter alia, are designated as additional Programme Parties:
 - (a) the ARIS;
 - (b) Pasture Department (the "PD");
 - (c) State Inspectorate for Veterinary and Phytosanitary Security (the "SIVPSS");
 - (d) Kyrgyz Livestock and Pasture Research Institute (the "KLPRI");
 - (e) Kyrgyz Jaiyty Pasture Users Association (the "KJPUA");
 - (f) National Federation of Community Seed Funds (the "NFCSFs");
 - (g) Kyrgyz National Agrarian University (the "KNAU");
 - (h) Kyrgyz Scientific Research Veterinary Institute (the "KSRVI");

- (i) Veterinary Chamber;
- (j) Kyrgyz – Russian Slavic University; and
- (k) Kyrgyzhydromet – Agency for Hydrometeorology under the Ministry for Emergencies.

3. The Programme Completion Date shall be the fifth anniversary of the date of entry into force of this Agreement.

Section D

The Financing shall be administered and the Programme supervised by the Fund.

Section E

1. In accordance with Section 4.02(b) of the General Conditions, the following are designated as additional general conditions precedent to withdrawal:

- (a) The draft Programme Implementation Manual (the "PIM") referred to in paragraph 12 of Schedule 1 to this Agreement shall have been submitted to and approved by the Fund.
- (b) The Programme Coordination and Reference Group (the "PCRG") referred to in paragraph 8 of Schedule 1 to this Agreement shall have been duly established.
- (c) The APIU and the ARIS Programme management units referred to in paragraph 7 of Schedule 1 to this Agreement shall have been fully staffed to the satisfaction of the Fund.
- (d) A subsidiary agreement between the Ministry of Finance and the ARIS on their cooperation in the implementation of the Programme, in form and substance acceptable to the Fund, shall have been concluded.
- (e) The Designated Accounts and the Programme Accounts at APIU and ARIS shall have been duly opened.
- (f) The Programme financial management system and accounting software shall have been operational at the APIU and the ARIS.

2. The following are designated as additional conditions for suspension:

The PIM, or any provision thereof, has been waived, suspended, terminated, amended or modified without the prior consent of the Fund, and the Fund has determined that such waiver, suspension, termination, amendment or modification has had, or is likely to have, a material adverse effect on the Programme.

3. This Agreement is subject to ratification by the Borrower/Recipient.

4. The following are the designated representatives and addresses to be used for any communication related to this Agreement:

For the Borrower/Recipient:

Minister for Finance of the Kyrgyz Republic
 Ministry of Finance
 58 Erkindik Ave
 Bishkek City, the Kyrgyz Republic, 720040

Facsimile Number: +996 664560

For the Fund:

President
 International Fund for Agricultural Development

Via Paolo di Dono, 44
00142 Rome, Italy

For the ASAP Trust:

President of the International Fund for Agricultural
Development in its capacity as Trustee of the
Adaptation for Smallholder Agriculture Programme
Trust Fund
International Fund for Agricultural Development
Via Paolo di Dono, 44
00142 Rome, Italy

This Agreement has been prepared in the English language in six (6) original copies,
three (3) for the Fund and the ASAP Trust and three (3) for the Borrower/Recipient.

KYRGYZ REPUBLIC

[Name of the Authorized Representative]
[Title]

INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT

Kanayo F. Nwanze
President

ADAPTATION FOR SMALLHOLDER AGRICULTURE PROGRAMME TRUST FUND

Kanayo F. Nwanze
President of the International Fund for Agricultural
Development in its capacity as Trustee of the
Adaptation for Smallholder Agriculture Programme
Trust Fund

Schedule 1

Programme Description and Implementation Arrangements

I. Programme Description

1. *Target Population.* The Programme aims to benefit vulnerable households; women headed households; other livestock producer households; and private veterinarians (the "PVs") in three southern regions of the Borrower/Recipient – Batken, Jalalabad and Osh (the "Programme Area").
2. *Goal.* The goal of the Programme is to contribute to the reduction in poverty and enhanced economic growth in pasture communities.
3. *Objectives.* The objectives of the Programme are to improve livestock productivity and to enhance climate resilience of pasture communities reflected in improved and equitable returns to livestock farmers.
4. *Components.* The Programme shall consist of the following four (4) components:

Component 1: Community-Based Pasture Management and Vulnerability Reduction

This component shall take advantage of the conducive environment provided by the new Pasture Law, the national emergency response activities and climate change adaptation policies, and will support Pasture Users' Unions (the "PUUs") and the executive body thereof, namely the Pasture Committees (the "PCs"), in the design, development and implementation of community-based pasture management plans that fully integrate animal health activities as well as adaptation and disaster risk-reduction (the "DRR") measures to increase the resilience of this sector to climate change. The outcome from this component would be more productive and resilient pastures, and increased supplementary feed available to community livestock. Component 1 is divided into two (2) sub-components:

Sub-component 1.1: Community Risk-mitigation Pasture Management and Investments

This sub-component shall provide for the initiatives that are required to improve the resilience and productivity, use and access to pastures within approximately one hundred and ninety (190) PUUs/PCs areas. It shall provide support to PUUs/PCs in the design, development planning and implementation of risk mitigation community-based pasture management and animal health plans that fully integrate adaptation measures to increase the resilience of this sector to climate change. In particular, Programme activities under this sub-component shall include: (i) Legal and Regulatory Reform; (ii) Policy Dialogue on Climate Change Adaptation; (iii) Boundary Demarcation and Pasture Inventory; (iv) Upgrading Community Pasture Management Plans (the "CPMPs"); and (v) CPMP Investment Projects.

Sub-component 1.2: Pasture Institutional Strengthening

This sub-component shall expand to the Programme Area the activities initiated under Programme sub-component 1.2 as defined in the LMDP-I Financing Agreement. Nonetheless, this sub-component shall integrate climate change adaptation throughout all the relevant activities. Investment shall primarily focus on the following national institutions that support pasture development: Pasture Department, Kyrgyz Jaiyty Pasture Users Association (the "KJPUA"), Kyrgyz National Agrarian University, and the Kyrgyz Livestock and Pasture Research Institute. In addition, an effective Early Warning System (the "EWS") for floods, frost and drought shall be established under the sub-component.

Component 2: Livestock Health and Production Services

The main objective of this component is to establish an effective private veterinary service through additional support and training to ensure that PVs are self-sufficient and deliver an effective demand-driven service. The component shall have two (2) sub-components:

Sub-component 2.1: Strengthening Veterinary and Community Animal Health Services

The sub-component shall contribute to (i) the establishment and training of Animal Health Sub-Committees (the "AHSCs"); and (ii) PVs capacity building. In particular, the Programme shall support the establishment of approximately one hundred and ninety (190) AHSCs as sub-committees of the PCs in the Programme Area through three (3) key investments: (i) upgrading AHSC guidelines and training materials; (ii) AHSC mobilisation/facilitation; and (iii) AHSC strengthening. In addition, this sub-component shall provide support to approximately three hundred and eighty (380) PVs in the Programme Area, who meet the following criteria: (i) registered with the Veterinary Chamber; (ii) under contract with an AHSC; and (iii) membership of the rayon level veterinary association, in order to promote PVs as the primary service providers for comprehensive preventative herd/flock health and productivity improvement programme.

Sub-component 2.2: Animal Health Education and Capacity Building

This sub-component shall provide support to the educational system to provide the facilities, teaching and incentives to produce a cadre of motivated young vets who will work in the Programme Area communities. In particular investment shall be made in the following activities: (i) updating veterinary education programme; (ii) veterinary education and training; (iii) student incentive programme; (iv) professional development and training; and (v) research by the Kyrgyz Scientific-Research Veterinary Institute.

Component 3: Diversification and Market/Value Chain Initiatives

The objective of Component 3 is to enable livestock producers in the Programme Area to expand their milk production to meet market demand and thereby achieve improved returns from their dairy animals, as well as introduce a set of additional viable income-generating activities that would increase the resilience of poor vulnerable groups. In the milk production sector, two initiatives shall be financed under this component: (i) the establishment of milk collection and cooling centres, through a partnership arrangement with milk processing plants; and (ii) the support to women's groups to set up small-scale milk processing facilities focused primarily on high quality traditional products. In other sectors, this component shall invest in, inter alia, (i) solar greenhouses for the production of vegetable and horticulture products, which would meet a growing need coming not only from the communities themselves, but also from the fast-growing national and international tourism sector; and (ii) multipurpose solar dryers or electricity-powered dryers for the drying of fruits, herbs and aromatic plants.

Component 4: Programme Management

This component shall provide financing for the overall management of the Programme by the Lead Programme Agency.

II. Implementation Arrangements

5. The Lead Programme Agency. The Lead Programme Agency shall be the MOAM of the Borrower/Recipient, acting through the APIU.

The Lead Programme Agency shall take the overall responsibility for Programme implementation, coordination, oversight and reporting to the Fund and the Government of the Borrower/Recipient, including liaising closely with the ARIS which shall be accountable to the APIU. A part of the Financing shall be transferred to the ARIS for eligible expenditures under the Programme in accordance with agreed criteria and the approved Annual Work Plans and Budgets (the "AWPBs").

5.1. The APIU shall be responsible for all national level Programme activities, including the technical and related inputs of the national level institutions, to ensure that they are deployed effectively and support the implementation of the range of national level activities and complement and provide the necessary inputs into the Programme's community level activities that will be the responsibility of the ARIS. The APIU and the ARIS shall establish and maintain formal close interaction and coordination in implementing the Programme.

5.2. The APIU shall be responsible for overall Programme implementation, coordination, oversight and reporting to the Fund and the Borrower/Recipient. In particular, the APIU's core responsibilities shall include: financial management including procurement, disbursement, accounting, internal controls, auditing, and financial reporting including the preparation of consolidated financial reports for the Programme; managing the performance of the partner organizations at the national level; overall Programme monitoring and evaluation and impact surveys, and knowledge management; and reporting for all Programme activities.

5.3. The following Programme activities shall be implemented by the APIU with due diligence in accordance with this Agreement: (i) under sub-component 1.1, Legal and Regulatory Reform, Boundary Demarcation and Pasture Inventory, and Community Seed Funds; (ii) sub-component 1.2, except for support to the KJPUA; (iii) sub-component 2.1, excluding those aspects that will be implemented within the communities and PCs; and (iv) sub-component 2.2.

6. The ARIS. The ARIS shall be responsible for the following: (i) all Programme implementation at the community level; (ii) coordinating and ensuring effective performance of the Programme Parties in the implementation of the community focused activities; (iii) monitoring and evaluation of Programme activities it shall implement, including monitoring of the related performance indicators, assembly and dissemination of information for knowledge management, and related reporting to the APIU to ensure that the APIU be fully informed; and (iv) financial management of all the activities for which the ARIS is responsible, including procurement, disbursement, accounting, internal controls, internal auditing and financial reporting.

6.1. The following Programme activities shall be implemented by the ARIS with due diligence in accordance with this Agreement: (i) the core elements of sub-component 1.1 including: the range of activities that comprise Upgrading Community Pasture Management Plans, Community Pasture Assessment and Mapping, the management of PC grants for the financing of investment projects identified in the CPMPs under the activity, Pasture/Livestock Management Plans Investments, and PUU legal training under Legal and Regulatory Reform; (ii) support to the KJPUA under sub-component 1.2; (iii) activities under sub-component 2.1 that deal with management of grants and strengthening the capacity of PVs; and (iv) Component 3 by sub-contracting service provider/s and technical assistance.

7. Programme Management Units and other Key Programme Personnel. The selection of members of the Programme management units of the APIU and ARIS and other key

Programme personnel shall be based on a competitive, open and transparent procedure and subject to the Fund's no-objection within thirty (30) days of receipt of the proposed selection. All key Programme personnel shall have qualifications and experience as shall be deemed necessary for Programme implementation.

8. The Programme Coordination and Reference Group (the "PCRG"). As a programme-specific oversight body, the PCRG shall be formed to provide guidance for Programme management. It shall include representation from inter alia each of the Programme Parties, representation from the Committee on Agrarian Policy of the Parliament of the Borrower/Recipient, representation from each of the involved oblast administrations, and representation from the PC level and stakeholders from the private sector. The PCRG shall have a composition balance between the Government of the Borrower/Recipient and civil society members. It shall meet quarterly and play an advisory role. It shall review progress of the Programme against targets and its success in meeting the performance indicators as specified in the PIM and AWPBs.

9. Other Programme Parties. The responsibilities of all other Programme Parties shall be provided in the PIM.

10. Annual Work Plans and Budgets (the "AWPBs"). Each Programme Party shall prepare and submit an AWPB for each Programme Year to the APIU, which shall then prepare and submit a consolidated draft AWPB to the Fund for comments no later than sixty (60) days before the beginning of the relevant Programme Year. If the Fund does not comment on the draft AWPB within thirty (30) days of receipt, the AWPB shall be deemed acceptable to the Fund. The AWPBs shall include inter alia a Procurement Plan, a detailed description of planned Programme activities during the coming Programme Year and the sources and uses of the proceeds of the Financing.

11. Procurement. Procurement for the purpose of this Agreement shall be carried out in accordance with the Fund's Project Procurement Guidelines of 2010 as amended from time to time. No vaccines shall be procured without being certified by a Reference Laboratory of the World Organisation for Animal Health (the "OIE"). Specifications for vaccines procured for animal diseases shall be based on international standards developed or recommended by the OIE.

12. The Programme Implementation Manual (the "PIM"). The APIU and the ARIS shall jointly prepare a draft PIM including inter alia:

- (a) Terms of reference and implementation responsibilities, for the purpose of this Agreement, of Programme staff, consultants, service providers and other Programme Parties created and/or involved in the implementation of the Programme;
- (b) Eligibility criteria and selection procedures with respect to target beneficiaries and activities to be financed under all sub-components; and
- (c) Detailed procedures for Programme implementation and flow of funds.

13. The APIU shall submit the draft PIM to the Fund for approval, as soon as practicable, but in no event later than thirty (30) days after the entry into force of this Agreement. If the Fund does not comment on the draft PIM within thirty (30) days of receipt, it shall be deemed approved. The APIU shall adopt the PIM, substantially in the form approved by the Fund, and shall promptly provide copies thereof to the Fund.

Schedule 2

Allocation Table

Allocation of Loan and Grant Proceeds. (a) The Table below sets forth the Categories of Eligible Expenditures to be financed by the IFAD Loan, the IFAD Grant and the Trust Grant; the allocation of the amounts of the IFAD Loan, the IFAD Grant and the Trust Grant to each Category; and the percentages of expenditures for items to be financed in each Category:

Category	IFAD Loan Amount (in SDR)	IFAD Grant Amount (in SDR)	Trust Grant Amount (in SDR)	Total Amount (in SDR)	Percentage of Eligible Expenditures to be financed <i>(net of taxes and beneficiaries' contributions)</i>
	[000]	[000]	[000]	[000]	
I. Equipment, Goods and Vehicles	320		370	690	100%
II. Consultancies		4 350	30	4 380	100%
III. Training and Workshops		900	5	905	100%
IV. Grants					
a. Pasture/ Livestock Improvement	6 330		5 860	12 190	
b. Value Chain, Diversification		300	145	445	
c. Other		1 500		1 500	
V. Operating Expenses	400		55	455	100%
Unallocated	150	150	35	335	
TOTAL	7 200	7 200	6 500	20 900	

(b) The terms used in the Table above are defined as follows:

Category I "Equipment, Goods and Vehicles" should also include demarcation of pasture boundaries and other works.

Category II "Consultancies" includes expenditures on Technical Assistance, Studies, and Pasture Inventory.

Category IV "Grants" includes Pasture/Livestock Improvement Grants to PUUs to be financed by the IFAD Loan (75%) and beneficiaries (25%); Value Chain Grants to Value Chain Business Groups to be financed by the IFAD Loan (80%) and beneficiaries (20%); and Other Grants comprising micro grants to AHCs, PVs, Community Seed Funds and payments of students stipends and tuition fees, which will be financed from the IFAD Grant (100%), except for grants to PVs, which apply the following rule: IFAD (50%) and PVs (50%).

Category V "Operating Expenses" includes inter alia remuneration of full time Programme staff and allowances and contributions to Social Fund, to be financed 100% from the IFAD Loan.

Logical framework

Results Hierarchy	Indicators	Means for Verification	Risks (R) & Assumptions (A)
Goal. Contribute to the reduction in poverty and enhanced economic growth in pasture communities	<ol style="list-style-type: none"> 95 000 households (25% of the targeted population) with additional improvement in household assets ownership index 25% of targeted population with increased climate resilience (ASAP) 10% reduction in the prevalence of child malnutrition 	Quantitative baseline, mid-term review, Programme completion survey. Health statistics. Studies to complement indicator based data	(A) Political stability and conducive macro-economic framework (R) Influence of overall economic development concealing Programme achievements
Development Objective. Improved livestock productivity and enhanced climate resilience of pasture communities reflected in improved and equitable returns to livestock farmers	<ol style="list-style-type: none"> The value of livestock and livestock products sold by participating households has increased by an average of 15%, 15% of poor households have improved nutrition and food security from increased consumption of meat and dairy products 	Baseline, mid-term, completion surveys Financial records of Programme Enterprise groups Qualitative studies	(A) A sound use of climate change vulnerability assessment informs and drives adaptation work (R) Elite capture of a disproportionate amount of the gains from increased production and local level conversion of animal, milk and meat surpluses sold on the market and to processors
Component 1. Community Based Pasture Management and Vulnerability Reduction			
Outcome 1. More productive and climate resilient pastures, and increased supplementary feed available to community livestock	<ol style="list-style-type: none"> 25% increase in average milk yields and 15% increase in average weight of livestock 225 mt incremental of high quality/cleaned barley and 45 000 mt fodder are available 20% reduction in mortality of animals caused by disasters (ASAP) 	Programme M&E records National, oblast and rayon statistics and inventories Policy documents, laws, strategies	(A) Adaptation measures are economically successful and sustainable (A) Key concerned stakeholders have the capacity to implement adaptation measures (R) Livestock producers do not respect the 'carrying capacity' of the assigned pastures
Output 1.1 Climate risk-mitigation pasture and animal health management plans incorporating needs and priorities of poor and women	<ol style="list-style-type: none"> 190 approved pasture management and animal health plans in the Programme area effectively integrating climate risk mitigation and adaptation measures (ASAP); Disputes regarding access to pastures reduced by 30% Increase in pasture fees collected by 20% by the end of the Programme 	Programme M&E records National, oblast and rayon statistics and inventories Baseline reports and pasture productivity records	(A) PCs are implementing Plans in a timely and efficient manner (A) Effective collaboration between Programme team, Ministry of Emergencies, and Hydromet (R) Livestock producers do not pay pasture fees in full. (R) Entrenched gender inequalities and lack of women's participation in pasture committees
Output 1.2 Resilient and sustainable investments prioritized in community pasture management and animal health plans completed and functioning	<ol style="list-style-type: none"> 648 000 men and women (30% of the targeted population) have access to infrastructure (water; shelter; storage; pasture connectivity roads) that is climate resilient and environmentally sound (ASAP) 17 000 ha of pasture is rehabilitated through eco-system restoration approaches (ASAP) 	Programme M&E records Baseline reports and pasture productivity records	(A) Effective and timely technical assistance secured for investment (R) The Programme fails to capture the interest of local communities (R) Poor maintenance of CPMP investments results in reduced benefits to the livestock farmers

Results Hierarchy	Indicators	Means for Verification	Risks (R) & Assumptions (A)
Output 1.3 Institutions involved in pasture management are strengthened and have capacity to integrate climate risk management into management plans and policy making	1. 315 Pasture Users' Unions (PUUs) benefiting from a functional early warning system for extreme climate events hazards (heat and cold waves, floods, frost and drought) (ASAP)	Programme M&E records Records of policy and advocacy initiatives Knowledge products	(A) Cross-sectorial cooperation between MoAM, State Agency for Environmental Protection, Forestry, Ministry of Emergencies and civil society (R) Lack of funds or capacity for research work
Component 2. Animal Health and Production Services			
Outcome 2. Healthier livestock with lower levels of mortality	1. Livestock mortality rates in the Programme area reduced by 2% 2. 80% of livestock farmer households have reductions in their animal mortality	(SIVPhS reports Programme M&E record	(A) Effective cooperation between community vets and livestock farmers/animal health committees can be ensured
Output 2.1 Community vets provide animal health and production services on a sustainable basis	1. 380 CVs received training 2. 380 veterinary packages provided to CVs 3. 75 AI businesses being operated by CVs by the end of the Programme	SIVPhS reports Programme M&E record	(A) Sufficient number of vets will find the Programme veterinary package attractive (R) Livestock farmers' ability/willingness to pay for vet services insufficient
Output 2.2 Animal health committees providing support to Pasture Committees on animal health concerns	1. 190 Animal Health Sub-Committees of Pasture Committees formed and trained	Programme M&E record	(A) Livestock farmers will see the benefits in a collective approach to animal health
Output 2.3 Educational support for animal health services operating more efficiently	1. 120 new vets entering veterinary practice and 60 CVs upgrading their skills	Programme M&E records Kyrgyz Agrarian University annual statistics	(A) Students will find veterinary practice an attractive career opportunity
Component 3 Diversification and Market/Value Chain Initiatives			
Outcome 3. Income from additional income generation activities benefits communities prone to climate change	1. Beneficiaries' household income increased at least by 20% from additional income activities (ASAP) 2. 25 partnerships between farmer groups and processors/market intermediaries formed	Programme M&E records GoK statistics and records	(A) Local households are willing to engage in income diversification (R) Weak market linkages and exploitative markets/milk processors constrain expansion of production to meet market demand
Output 3.1 Higher quality and volumes of milk available for assured markets	1. 10 milk collection/cooling centres established Price per litre of milk gained by producer increases by 15% 2. Value added in milk improves by 20%	Programme M&E records GoK statistics and records	(R) Contractual obligations are not fully observed and relationships break down (R) Continued closure of export markets constrains demand for milk and dairy products
Output 3.2 Additional income-generating activities supported to enhance risk-coping mechanisms	1. 25 additional economic activities groups established, 2. 25 grants for economic diversification disbursed	Programme M&E records GoK statistics and records	(A) Economic diversification options are attractive to improve livelihoods and economy of smallholders