



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 17-Nov-2017 | Report No: PIDISDSA23784



BASIC INFORMATION

A. Basic Project Data

Country Mali	Project ID P160641	Project Name Mali Livestock Sector Development Support Project (PADEL-M)	Parent Project ID (if any)
Region AFRICA	Estimated Appraisal Date 26-Oct-2017	Estimated Board Date 28-Feb-2018	Practice Area (Lead) Agriculture
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Economy and Finance	Implementing Agency Ministry for Livestock and Fisheries Development	

Proposed Development Objective(s)

The Project Development Objective (PDO) is to “enhance productivity and commercialization of non-pastoral animal production in selected value chains, and strengthen the country’s capacity to respond to eligible crises or emergencies.”

Components

Component 1: Strengthening of livestock services

Component 2: Support to private investment

Component 3: Crisis prevention & management, and Project coordination

Financing (in USD Million)

Financing Source	Amount
Borrower	4.80
International Development Association (IDA)	60.00
Borrowing Country's Fin. Intermediary/ies	9.40
LOCAL: BENEFICIARIES	4.20
Total Project Cost	78.40

Environmental Assessment Category

B - Partial Assessment



Decision

The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

- 1. Mali is a semi-arid, landlocked, low-income country with a predominantly rural economy and rapidly growing population.** Climate change and increasing human pressure present challenges for agriculture in Mali's semi-arid tropical environment. Rainfall is irregular, poorly distributed, low (500 mm per year in the Sahelian zone, less in the desert zone, and 800–1,000 mm in the Sudano-Sahelian zone), and declining. The population (estimated at 17.6 million in 2015) is quite young—the median age is 16 years—and growing at a high average rate of around 3 percent. Per capita gross national income was US\$ 760 in 2015. Life expectancy is low (58 years), malnutrition is high (28 percent of children under five are stunted), and most of the adult population is illiterate (69 percent). The economy is predominantly rural and informal: rural areas account for 63 percent of the population, and the informal sector provides 80 percent of the jobs.¹
- 2. Poverty remains high—and highly rural.** Largely by improving agricultural production and value chains, Mali managed to reduce poverty significantly before the 2012 political and security crisis. In 2000, 60 percent of the population lived below the US\$ 1.9 per day poverty line. By 2010, 51 percent were poor. The vast majority—90 percent—lived in rural areas. Poverty is also more concentrated in the South, where population density is highest.² After 2010, poverty deepened as drought (2012) and conflict (2012–13) took their toll. Mali ranked 175 out of 188 countries on the 2015 UN Human Development Index (HDI). Non-income indicators of poverty and welfare, particularly for education and health, are among the lowest in the world, and most Millennium Development Goals (MDGs) appear out of reach.
- 3. The performance of agriculture remains crucial for the performance of the Malian economy.** Agriculture provides 40 percent of gross domestic product (GDP). The economy grew at approximately 5 percent per year over 1995–2010, but in 2012 the global recession, military coup, and deteriorating security in the North slashed GDP growth to 1.2 percent. In 2013, with the conflict receding, economic growth slowly resumed, hampered by bad weather and poor crops, and then rebounded at 7.2 percent in 2014, following sizable financial support from development partners that spurred public investment and a revival of private consumption.³ The peace agreement signed in 2015⁴ gave hope for stability, and Mali has embarked on

¹ World Bank (2015), "Priorities for Ending Poverty and Boosting Shared Prosperity: Mali Systematic Country Diagnostic"; UNESCO (2010), "Adult and Youth Literacy 1990–2015: Analysis for 41 Selected Countries"; World Bank World Development Indicators database; and <http://www.worldometers.info/world-population/mali-population>.

² Based on traditional (consumption) poverty measure; see Mali Systematic Country Diagnostic (World Bank 2015).

³ IMF (2015), "Mali: Third Review under the Extended Credit Facility Arrangement: Request for Waiver of Performance Criteria, and for Modification of Performance Criteria," IMF Country Report No. 15/151, Washington, DC.



structural reforms, adopted sound economic policies, and benefited from increased cotton and mining production, steady investments, and a relatively stable macroeconomic environment. The country is working to create an integrated and open regional economic space through the West African Economic and Monetary Union (WAEMU), the Economic Community of West African States (ECOWAS), and other African cooperative initiatives such as the Comprehensive Africa Agriculture Development Program (CAADP). The economy is still overly reliant on agricultural production (especially cotton) and gold mining for a substantial share of export revenue. The increasingly harsh effects of climate change hinder efforts to reduce extreme poverty. In 2015, the country ranked 95 of 167 countries in Transparency International's Corruption Perceptions Index.

4. Mobilizing Mali's long-term growth potential will require expansion and diversification in the productive sectors of the economy, particularly agriculture. Increased incomes and urban demand in both Mali and West Africa have created new market opportunities. Seizing these opportunities will require structural transformation aimed at expanding and diversifying productive sectors, particularly agriculture. Key prerequisites for structural transformation include a flexible labor market, a minimum level of education (to adapt to new sectors), and conditions favoring trade and investment, notably lower transport costs and a good investment climate that includes efficient enabling services. The agricultural sector requires a gradual approach, predicated on reducing the gap between current and potential productivity. Prospects for agricultural growth should be exploited first in existing value chains, focusing on improvements of relatively low economic complexity in basic products similar to those already being produced. Then efforts can expand to more diversified, higher-value products and increased value addition.

5. Development and assistance priorities recognize agriculture (including livestock production) as a cornerstone of economic growth and poverty reduction. The 60–51 percent decline in poverty from 2000 to 2010 is largely connected to gains in the agricultural sector. This conclusion is reflected in Mali's Strategic Framework for Growth and Poverty Reduction (CSCR), updated to cover 2012–17. The newly adopted Joint Country Assistance Strategy (SCAP II—2016–18) is aligned with CSCR priorities. Mali's Systematic Country Diagnostic (SCD) highlights the importance of agriculture and livestock for poverty reduction. Both the SCD and Country Partnership Framework (CPF) note that increasing rural income is a critical step in economic transformation, while the development of value chains ensures that increased production can be marketed and transformed into higher value added products.

Sectoral and Institutional Context

6. Sector significance. Livestock, including fisheries and aquaculture, is a key sector of the Malian economy and a key productive activity for more than 85 percent of the population (7.2 percent for the fisheries subsector). The national livestock population⁵ is estimated at more than 15 million cattle, 32 million small ruminants, 37 million poultry, and just under 1 million camels. Mali produces 180,000 tons of fish per year, including production from aquaculture, which is booming economically.⁶ In terms of wealth creation and national exports, livestock is third, behind gold and cotton. In recent years, the sector has contributed about 19 percent of national GDP (4.2 percent from fisheries alone); it provides income to about 30 percent of the

⁴ Accord pour la paix et la réconciliation au Mali issu du processus d'Alger, June 20, 2015.

⁵ Mali has a great diversity of animal breeds. The best known are the Maure, Fulani, and Azawack zebu breeds; N'dama cattle; Toronké and Djallonké sheep; and the Sahel and dwarf goat.

⁶ Production of farmed fish doubled between 2012 and 2014 (from 1,200 to 2,400 tons); the main species used in fish farming are tilapia (*Oreochromis niloticus*), catfish (*Clarias ssp.*), and heterotis (*Heterotis niloticus*).



population. Even so, annual public funding for the sector represents barely 10 percent of agricultural expenditures and less than 2 percent of the national budget.

7. Strategies and programs for sustainable development in Mali give due consideration to agriculture in general and to livestock and fisheries in particular (although to a lesser extent). As a complement to the Agriculture Orientation Law (*Loi d’Orientation Agricole*) passed in 2006, the most recent policy documents and investment frameworks include (i) the National Policy for Aquaculture and Fisheries Development (PNDPA, 2011) and its five-year programmatic plan for aquaculture development (2016–20), as well as (ii) the National Agriculture Development Policy (NADP, 2013) and its National Agricultural Investment Plan⁷ (PNISA, 2015–25, developed through the CAADP process.

8. Diversity of livestock systems.⁸ Three main livestock husbandry systems coexist in Mali: (i) *pastoral systems*, characterized by animal mobility (extensive cattle and small ruminant production systems); (ii) *traditional sedentary systems* (village-based systems found throughout the country for ruminants, including dairy, as well as poultry), and (iii) *improved systems* (mainly peri-urban, semi-intensive poultry production, ruminant fattening and dairy). Mali has significant water resources conducive to fishing and aquaculture (three major river basins: the Niger, Senegal, and Volta). Other animal production systems (marginal, but diversified) include beekeeping, rabbit rearing, and pig breeding.

9. Livestock development constraints. Numerous constraints operating at various levels impede sector development. Institutional, legislative, and regulatory constraints include the lack of means and intervention capacity among State services, inadequate and/or unenforced laws, inadequate databases, and weak systems for planning, information gathering, and monitoring and evaluation (M&E). Actors in the livestock sector are not well organized—for instance, producer organizations and cooperatives have little structure or capacity for economic organization. Little technical and economic information is available on new livestock intensification systems. Animal diseases are persistent; veterinary services are hard to access; and animal health delivery systems (public and private) are thin on the ground. Zootechnical inputs are used infrequently and their quality is variable (limited fodder crop dissemination and adoption; limited supply and unregulated production of feed for livestock, poultry, and fish; expensive aquaculture inputs). The genetic potential of animal breeds is not well developed, and artificial insemination (AI) services are not widely available. The formal banking sector is reluctant to finance private operators, particularly over the medium term, and in general the sector suffers from inadequate investment funding and operational support, as shown by the lack of large-scale industrial infrastructure; use of old and obsolete production, processing, and marketing equipment; and low valorization of certain livestock byproducts such as hides and skins. Noncompliance with environmental laws results in the overexploitation of fish stocks. Land tenure is insecure, and land administration services are not decentralized. The national system for preventing and managing climatic, health, and commercial crises in the livestock sector is not well developed or adapted to local conditions.

10. Sector potential. If it could overcome constraints like those just listed, the livestock sector could mobilize its considerable growth potential. The combination of demographic growth, urbanization, and the incipient development of the middle class has significantly increased the demand for animal products at the national and export level in West Africa and potentially beyond in other African or Middle Eastern countries.

⁷ Programme National d’Investissement dans le Secteur Agricole.

⁸ In this project appraisal document, “livestock” is understood to encompass cattle, small ruminants, poultry, fish farming, and all other animal species reared for agricultural diversification.



The sector exhibits many comparative advantages that would favor growth. Among others, it has a numerically important, diversified livestock population (first in the WAEMU zone and second in the ECOWAS region) that includes breeds recognized for their meat and milk production potential. Producers have considerable traditional knowledge and experience with animal fattening, milk production, poultry rearing, and fish farming. The livestock/meat export sector is competitive and potentially highly profitable and attractive to investors. The livestock sector already contributes significantly to economic value added and growth, exports, and the State budget, and the feed value chains exhibit high potential for growth that should promote further development. In addition, the sector is a major lever for creating jobs (including jobs that integrate women and young people into the workforce) and combating poverty and food insecurity. Livestock activities help Malian households overcome nutritional deficits by providing different sources of protein and improving and diversifying diets.

11. Sector opportunities. Building on its assets, the sector could take advantage of many opportunities, with a focus on three: (i) the large potential to increase animal productivity (especially by improving animal health, exploiting the genetic potential of improved breeds, and instilling better livestock husbandry practices); (ii) the existence of a significant domestic market that is constantly expanding through demographic growth, urbanization, and national enrichment (GDP growth and the emergence of a middle class); as well as (iii) outlets for animal products in the surrounding markets and the development of sub-regional exchanges (WAEMU and ECOWAS).

12. Institutional context. The Ministry for Livestock and Fisheries (MEP) is responsible for the livestock sector, with the following functions: (i) improvement of traditional livestock activities through training and extension for producers, including support for partnership and cooperation between producers and other actors in livestock value chains; (ii) development of pastoral areas, promotion of feed-processing industries, and support to fodder production, to spur intensive animal production; (iii) strengthening of animal health infrastructure and services; (iv) quality control improvement for livestock services and inputs, and animal products; (v) support of processing industries for livestock byproducts (food, hides and skins, and animal manure); and (vi) identification of stable and remunerative markets for livestock products. MEP recognizes that successful modernization and intensification of the sector must involve the State and all other stakeholders (domestic, external, private, public).

13. Alignment with the Government of Mali's agricultural development policy. The project is well aligned with the National Agriculture Development Policy (NADP, 2013),⁹ which builds on the Agriculture Orientation Law (LOA, 2006). The NADP recognizes the need for greater agricultural productivity and diversification, along with increased public spending in agriculture, preeminently in the livestock sector. The strategy underpinning the NADP includes specific goals to boost the contribution of agriculture (including livestock and fisheries) to economic growth and employment, generate greater export earnings, upgrade and diversify farming systems, improve food security and livelihood options for Malians, as well as strengthen the institutional context and conserve and sustain the environment. The strategy draws on specialized analytical work undertaken by the International Livestock Research Institute (ILRI), the World Organization for Animal Health (OIE), and the Food and Agriculture Organization (FAO). In line with the PDA, the project is expected to better equip the livestock sector to promote growth in the national economy, while providing ancillary benefits to the population in terms of food consumption and nutrition.

⁹ "Politique de développement agricole (PDA) du Mali," May 2013 (<http://faolex.fao.org/docs/pdf/mli145852.pdf>).



14. Contribution to the World Bank’s partnership strategy. The project will contribute to the main objectives of the CPF (FY16–19) through selective and strategic interventions in the livestock sector, closely coordinated with the activities of other development partners. In line with the NADP, the CPF highlights the importance of developing agriculture to boost growth and reduce poverty on a lasting basis. The CPF aims to create economic opportunities in agriculture by: (i) improving the productive capacity and market integration of producers; (ii) diversifying agricultural production; and (iii) upgrading infrastructure and connectivity. Through the CPF, the project will support Mali’s PDA and thus link to national, sub-regional, and regional development policies. The project will contribute to the World Bank Group Joint Implementation Plan (JIP) for Mali, predicated on the CPF. Alongside the project, the World Bank, International Finance Corporation (IFC), and Multilateral Investment Guarantee Agency will play a closely coordinated role in supporting commercial value chains in the livestock sector with the aim of “reducing poverty through private sector investment in agribusiness.”

15. Links with World Bank and IFC, as well as other externally financed projects. PADEL-M complements six ongoing Bank operations which touch *inter alia* on the wider livestock sector: (i) Regional Sahel Pastoralism Support Project (PRAPS-ML, US\$ 45 million, ending in December 2021); PADEL-M is PRAPS-ML’s sister project as the latter focusses on pastoral systems; the two projects will be administratively linked to take full advantage of the capacity already available in MEP (see Annex 2); (ii) Mali’s Agricultural Productivity Growth Project (PAPAM, US\$ 70 million, ending in July 2018); (iii) West Africa Agricultural Productivity Program (WAAPP, US\$ 60 million, ending in December 2018); (iv) Youth Skills Development Project (PROCEJ, US\$ 63 million, ending in June 2020); (v) Mali’s Agro-industrial Competitiveness Support Project (PACAM, US\$ 30 million, which started in late 2016 and runs until July 2022); and (vi) West Africa Regional Disease Surveillance System Enhancement Program Phase 3 (REDISSE 3). PAPAM, PROCEJ, and WAAPP dedicate funding to both traditional and improved livestock systems. PACAM primarily supports the animal feed value chain for livestock, including poultry and fish. PADEL-M will also build on two upcoming irrigation projects that address irrigated production, potentially of fodder crops (PADAIC in the Alatona area in Niger’s inland delta, and the Sahel Irrigation Initiative Support Project–SIIP), as well as two other projects with important implications for the livestock sector: the Rural Mobility Project (approved early FY18), which will finance rural roads, and the Drylands Development Project (FY19), which is designed to reinforce the resilience of rainfed cereal production systems.¹⁰ Results of the Financial Inclusion and Rural Finance study currently undertaken in Mali will also benefit PAEDL-M. The project will work closely with IFC, which plays an important role in engaging the private sector and promoting investment opportunities that leverage public funding, including in the livestock sector.¹¹ Lastly, the project will complement other donor-financed projects, emphasizing lessons learned and opportunities for synergy and coordination, *inter alia*: (i) Project for the Development of Animal Production in the South Kayes Zone (PADEPA-KS),¹² funded by the African Development Bank (AfDB); (ii) Rural Youth Vocational Training Project,¹³ funded by the International Fund for Agricultural Development (IFAD); (iii) Integrated Development of Livestock and Fisheries Resources Project (PDIRAAM), funded by the Islamic

¹⁰ This project builds on the findings from a recent World Bank analysis presented in Report P156684, “Strategies to increase agricultural productivity and improve market participation in Mali’s drylands: Evidence from LSMS-ISA 2014.”

¹¹ IFC already supports private companies in the development of targeted value chains, notably for dairy and red meat near urban centers. A case in point is the IFC-financed Kayes abattoir. This facility currently operates at a fraction of its capacity for lack of supply. It would benefit from an associated investment in cattle fattening, which could supply additional animals.

¹² Projet d’appui au développement des productions animales dans la zone Kayes Sud.

¹³ Rural Youth Vocational Training Employment and Entrepreneurship Support Project (IFAD.)



Development Bank (IDB); and (iv) two programs funded by the United States Agency for International Development (USAID)—Feed the Future (FTF) Livestock for Growth (L4G) and Mali Livestock Technology Scaling (MLTS).¹⁴

C. Proposed Development Objectives

Development Objective(s) (From PAD)

16. The Project Development Objective (PDO) is to “enhance productivity and commercialization of non-pastoral animal production in selected value chains, and strengthen the country’s capacity to respond to eligible crises or emergencies.” The PDO is aligned with the government strategy for sustainable livestock development, which promotes “sustainable, modern, and competitive agriculture, based primarily on recognized and secured agricultural family farms, through the maximization of agro-ecological potential and of the agricultural know-how of the country, and the creation of an environment conducive to the development of a structured agricultural sector...to guarantee food sovereignty and to make the agricultural sector the driving force of the national economy, with a view to ensuring well-being.” The PDO explicitly articulates the project’s complementarity with PRAPS-ML by specifying that it targets only livestock systems unrelated to pastoralism (the focus of PRAPS).

17. The project will have countrywide coverage. It will focus on the sedentary livestock rearing systems, which are not dealt with by PRAPS-ML. It will encompass the main livestock commodity value chains (meat from cattle and small ruminants, milk, poultry meat, and eggs), including aquaculture. In all regions, the project will also have a focus on peri-urban areas to boost semi-intensive livestock production and processing systems, as appropriate.

Key Results

18. Direct beneficiaries. The proposed project should primarily benefit about 340,000 livestock-producing people and small-scale livestock operators and enterprises, including poultry and fish farming households and operators, of whom 30 percent will be women and 30 percent youth (between the ages of 15 and 40). More specifically, the direct project beneficiaries are: (i) sedentary livestock-rearing households benefiting from project interventions in targeted production areas, particularly the vulnerable segments of that group; (ii) small- and medium-scale private livestock operators and enterprises; (iii) livestock (including poultry and fish farming) producer organizations (POs) and their apex institutions; (iv) staff of the livestock support services, including the public livestock research and extension services, non-governmental organizations (NGOs), and private service providers involved in the targeted livestock value chains in project areas.

19. Indirect beneficiaries. The project has a range of secondary beneficiaries. On the production, processing, and marketing side, they include other livestock and fish farmers outside the targeted areas, who are not directly involved in project activities but will benefit from improved animal disease control and higher-quality livestock inputs and services. Secondary beneficiaries also include stakeholders (buyers and processors)

¹⁴ USAID funds for livestock activities under the FTF initiative include: (i) L4G, implemented by AECOM International Development, which strengthens technical and organizational capacities in the cattle and small ruminant value chains and (ii) FTF-MLTS, which supports livestock producers in the Mopti, Timbuktu, and Sikasso regions.



in the targeted value chains, who will benefit from increased provision of livestock, poultry, and fish commodities. On the consumption side, consumers in Mali will benefit from a larger supply of animal protein that is also of better quality, and from improved nutrition at the household level. Other indirect beneficiaries include service providers operating in livestock value chains, such as private veterinarians and input providers (feed and veterinary medicines, for instance).

PDO-Level Results Indicators

Progress toward the achievement of the PDO will be measured by the following results indicators:

- a) Percentage increase of yields produced by targeted beneficiaries among selected value chains.¹⁵
- b) Incremental sales in targeted value chains (aggregated over all the targeted value chains).¹⁶
- c) Time to reach 50 percent of the targeted beneficiaries as foreseen in the inclusive contingency intervention plan.
- d) Farmers reached with agricultural assets or services-Core indicator (of which 30 percent female and 30 percent youth).
- e) Beneficiary satisfaction rate with services provided by the project for the livestock sector.

D. Project Description

A. Project Approach

20. Overall project approach. The project aims to support selected sedentary livestock value chains (VCs): cattle and small ruminants (meat and milk), poultry (chickens and eggs), and fish farming (aquaculture), as well as diversification value chains to the extent possible (such as hogs and beekeeping/honey production). The project will support livestock development activities all along the selected VCs from production to market, assuming that these activities have recognized potential to provide significant beneficial spillover effects for Mali's economy. The project will build solid partnerships by pooling the expertise and resources of various actors in the selected VCs, such as the government, private sector operators, producer and VC organizations, commercial banks, and microfinance institutions.

21. Key problems addressed. The project will approach problems in an integrated fashion for each selected VC, and across VCs whenever possible. It will address the key problems facing Mali's sedentary livestock sector, including: (i) weak productivity of sedentary production systems caused by inadequate access to services and essential inputs (such as veterinary services, animal nutrition, improved breeding stocks) and the lack of advisory services tailored to producers' circumstances to help modernize and intensify their operations; (ii) poor access to markets and low investment owing to a lack of market information and credit resources, as well as modern means of production, marketing channels, and processing facilities; and (iii) increasing vulnerability owing to increased risks posed by climate change, animal diseases (including zoonotic diseases), economic hazards, conflict, and insecurity.

¹⁵ This indicator will be measured for every targeted value chain, but only the weighted average across all targeted value chains will be reported as a key performance indicator.

¹⁶ As is the case for yields, only the weighted average across all targeted value chains will be reported as a key performance indicator.



22. Complementarity of PADEL-M with PRAPS. PRAPS is a regional operation, currently implemented in the six Sahelian countries (including Mali, through PRAPS-ML) to support improved productivity, sustainability, and resilience of pastoral livelihoods, as prioritized in the Nouakchott Declaration on Pastoralism (2013). As the sister operation of the proposed project, PRAPS-ML concentrates on pastoral activities that sustainably raise the incomes of pastoral and agro-pastoral groups by improving animal health, managing natural resources (essentially rangeland and water), facilitating live animal market access, and preventing and managing pastoral crises. PRAPS-ML is active in Mali's pastoral area, which covers a large part of the national territory, including the northern regions of Mali bordering Mauritania, Algeria, and Niger. The proposed PADEL-M complements PRAPS-ML by focusing on sedentary livestock systems instead of mobile ruminant herding. The two projects have overlapping geographical boundaries but target different beneficiaries. They also have operational complementarities touching *inter alia* upon animal health, feed production and supplementation, access to market information, as well as livestock sector crisis prevention and management. PADEL-M will be administratively linked to PRAPS-ML to take full advantage of the capacity already available in MEP (for instance, fiduciary and environmental/social safeguard management), as well as cross-cutting project coordination. Pooling technical expertise, sharing managerial capacities at the central and field implementation levels, and adopting similar joint implementation arrangements will guarantee that the two projects operate efficiently in synergy, without duplicating activities, hence ensuring a sector wide approach within MEP.

23. Gender mainstreaming. Women have a crucial role in ensuring household food security and contributing to livestock development in rural Mali. In this respect, women engage more in activities related to small livestock (such as poultry, sheep, goats) and fisheries, whereas men focus on cattle. Recent studies show that women participate mostly in milk production and marketing, breeding of short-cycle species, fish processing, and diversification activities like honey production. Generally, women are involved more in the informal sector, where they pursue a variety of livestock-related activities aimed at generating income to meet family needs. For rural women, a primary challenge is to divide their time between their productive activities (such as livestock) and their reproductive activities (such as household chores). Compared to men, women also tend to have fewer productive assets like tools and equipment and more limited access to credit and land. Supporting time-saving technologies in conjunction with the nutrition-sensitive tasks usually undertaken by women will be crucial both for enhancing livestock production and improving maternal and child nutrition.

24. Lessons from experience indicate that to effectively reduce the gender gap in the livestock and fisheries sectors, it is also important to focus on: (i) training in technical skills and business management to equip women to take advantage of profitable economic opportunities; (ii) women's access to technical information and networks; and (iii) women's participation in developing cooperatives and professional organizations. The project will mainstream support to all of the above activities geared toward women as an integral part of its support to the targeted VCs, and it will grant preferential conditions to women for funding of investments. The plight of youth is similar to that of women. A sizable fraction of Mali's large youth population¹⁷ is either unemployed or underemployed. Young people will also receive preferential access to project resources, including investment funding. A study of the roles of women and youth in the household and commercial livestock economy has been prepared as part of project preparation to deepen the understanding of these issues and more clearly define how the project can support these groups.

¹⁷ In 2016, the estimated age structure in Mali is 0–14 years (47.27 percent), 15–24 years (19.19 percent), 25–54 years (26.82 percent), and 55–64 years (6.71 percent) (Index Mundi 2016).



25. Support to nutrition. Livestock products are vital to the poor, not only because they contribute to economic welfare but because they assure overall human development outcomes. Animal protein is important to a balanced human diet, particularly during the early years of life; animal products provide nutrients and micronutrients that are otherwise scarce or lacking in local diets. For those reasons, increasing the share of foods from animal sources in the calories consumed by the poor in Mali (as in many other low-income countries, particularly in the Sahelian region) can yield many nutritional benefits, and promoting livestock production can improve human nutrition in rural areas. In fact, evidence suggests that support for livestock development has nutritional benefits for targeted communities and that rural families who own livestock increase their consumption of foods of animal origin and improve children's nutritional status. Through its support for sedentary livestock development, PADEL-M will help to promote sound nutritional practices among rural beneficiaries, particularly women and children.

26. Climate-smart development. Climate change adaptation and enhanced resilience in the agricultural sector remain priorities for Mali, as emphasized in the National Adaptation Plan for Climate Change (June 2015). Mali's livestock sector (including aquaculture) is subject to climate change threats of various kinds: (i) gradual depletion of water sources and water points; (ii) infestation of animals by the vectors of diseases such as trypanosomiasis and African swine fever; (iii) degradation of fodder resources; and (iv) natural disasters such as floods and droughts, which are more likely in the North. The project will help to address such threats. With regard to concerns that livestock production systems are a source of greenhouse gas (GHG) emissions and pollutants, evidence suggests that the more intensive production systems promoted under PADEL-M will have less GHG impact per unit produced than traditional systems (Annex 5). Intensification could however result in greater soil and water pollution. The project will promote good manure and waste management practices to prevent such potential adverse effects. Building environmental resilience in close liaison with livestock producers is a core dimension of PRAPS-ML that PADEL-M will emulate and extend to other VCs for animal products.

27. Private sector development and alignment with the World Bank's cascade approach. The project design explicitly acknowledges the key role of the private sector in sustaining the development of the livestock sector and focuses on private sector solutions where they can help achieve development goals. The project's fundamental premise is that the development of the livestock sector depends on promoting private initiative and that scarce public funds should be used where they are most needed. The project also emphasizes the private sector role in delivering public services. A case in point is the delivery of veterinary services, by supporting the installation of private animal health service providers through the "veterinary mandate." The project will improve the incentive framework for private producers and investors through the provision of public goods in the form of animal health services, genetic improvement, foundation forage seed, etc., and related advisory services, and by dealing with crisis prevention and management. Better provision of these public goods will create an enabling environment to expand opportunities for the private sector in livestock VCs. To support private activity, the project will improve the vertical and horizontal integration of livestock VCs and build the capacities of the inter-professional organizations that represent the entire range of actors in each VC. The project will enhance market efficiency by supporting market information systems that meet specific needs of private actors, especially producers, traders, and exporters. Finally, a key project design feature is the promotion of private sector access to commercial credit through close partnership with financial institutions. The project will not finance large-scale meat production and processing infrastructure or industrial dairy units. IFC was consulted during preparation to explore such investment possibilities. IFC already supports private



companies in the development of targeted VCs, notably for dairy and red meat near urban centers such as Bamako and Kayes.

28. Crisis prevention and management. The Sahel, of which Mali is integral part, is an environment where severe climatic variability is the norm. Droughts and highly scattered and unpredictable rainfall patterns are characteristic; the timing of these events cannot be predicted accurately, but they are expected periodically. The growing importance of animal movement and subregional trade are gradually increasing the incidence of disease and the potential for full-blown emergencies (such as the reemergence of Highly Pathogenic Avian Influenza in 2015). Although the costs of dealing with emergencies are far higher than the costs of prevention, funds have been more readily available to respond to emergencies unleashed by natural disasters and public health crises than to prepare for them and mitigate their impact. PADEL-M, like PRAPS-ML, assumes that crisis prevention and management are an ongoing requirement for Mali to be prepared to confront livestock disasters and crises. The project will finance the establishment of a sectorwide Contingency and Emergency Response plan and contribute to a countrywide Immediate Response Mechanism (IRM), to provide minimum startup resources for an immediate response to emergencies, which can be replenished to continue responding as required. PRAPS-ML and other recent IDA-financed projects in Mali contain similar contingency emergency response funds.

B. Project Components

29. PADEL-M is structured as an Investment Project Financing (IPF) for a total cost of US\$ 78.4 million, funded partly by an IDA credit in the amount of US\$ 60 million over six years. The project will have three interrelated components, organized to remove constraints and address priorities sequentially: (i) improving the quality of livestock services and the access of livestock producers to these services; (ii) developing market access through the promotion of private investment in production, processing, and marketing businesses; and (iii) prevention and crisis management, institutional support, and project coordination.

Component 1: Strengthening of livestock services – US\$23.8 million (US\$20.5 million from IDA, US\$2.1 million from the Government, and US\$1.2 million from Beneficiaries)

30. The objective of this component is to enhance livestock productivity in selected non-pastoral value chains. It is designed to build sustainable human, institutional, and policy capacity for key public and private actors in the livestock and aquaculture sectors, in order to improve animal husbandry practices as well as the access to and delivery of quality extension services (for animal health, feed, and breeding). This component has national coverage by design and comprises three subcomponents: (i) enhancing animal health and food safety; (ii) enhancing livestock (including aquaculture) productivity in the selected value chains; and (iii) strengthening the policy and regulatory framework.

31. Subcomponent 1.1: Animal health and food safety—US\$ 10.5 million (US\$ 8.9 million from IDA, US\$ 0.4 million from the Government of Mali, and US\$ 1.2 million from beneficiaries). Subcomponent 1.1 will help to reduce mortality and morbidity losses due to animal diseases and contribute to improved public health; it will seek synergies and complementarities with PRAPS-ML. Activities will include: (i) develop animal disease prevention and control strategies (foot and mouth disease—FMD, Newcastle disease—NCD); (ii) strengthen surveillance systems¹⁸ for emerging and re-emerging and other priority animal diseases through Field

¹⁸ The project will join efforts with PRAPS-ML and REDISSE III.



Epidemiology Training Programs for Veterinarians (FETPV); (iii) support to vaccination programs¹⁹ and awareness campaigns for four priority diseases—peste des petits ruminants (small ruminant plague, PPR), contagious bovine pleuropneumonia (CBPP) in cattle, and FMD and NCD for poultry; (iv) enhance the diagnostic capabilities of the Gao laboratory through the acquisition of laboratory supplies, reagents, and consumables, and also enhance the maintenance and calibration of Central Veterinary Laboratory (LCV) equipment; and (v) promote public health and food safety through enhanced quality control of animal products, the development and implementation of control strategies for brucellosis/tuberculosis/salmonellosis, and support to implement the Anti-Microbial Resistance national action plan. Furthermore, the project will support relevant institutes with research facilities to develop performant fish strains and quality feed formulations, and strengthen fish pathology knowledge.

32. Subcomponent 1.2: Productivity enhancement—US\$ 12.6 million (US\$ 10.9 million from IDA and US\$ 1.7 million from the Government of Mali). The aim of this subcomponent is to increase the availability of and access to high-quality services and inputs for livestock producers (including aquaculture). Activities include: (i) genetic improvement by (a) supporting the decentralization and privatization of artificial insemination (AI) service delivery, (b) enhancing capacity for the production and distribution of liquid nitrogen, and (c) reinforcing the capacity of private inseminators, in order to achieve 65,000 AIs at the end of the project with a success rate of 70 percent; (ii) feed improvement through availability of improved forage seeds, provision of forage equipment, silage development, and feed quality control (including aflatoxin assessment); (iii) development and dissemination of technical and economic guidelines for livestock production in the selected VCs; (iv) transfer of Good Agriculture Practices (GAPs) in dairy, poultry, and cattle VCs by rolling out innovative extension models, such as livestock Farmer Field Schools (FFSs), and provision of training; GAPs will include such specialized areas as management of manure, efficient use of natural resources (water particularly), good management of discharges, safe recycling, and biosecurity; and (v) promotion of fish processing and conservation with improved cold chain and traditional conservation methods, combined with improved packaging, labelling, and marketing through the introduction of recently developed fish smoking methods and best practices in aquaculture production.

33. In addition, this subcomponent will help to bridge skills and institutional gaps of the public sector by financing: (i) human resource capacity development (specialized training efforts tailored to selected VCs); (ii) veterinary medicine studies (degree training); and (iii) building construction/rehabilitation and equipment (vehicles, motorcycles, office supplies, internet connection, and veterinary kits) for DNSV,²⁰ field border posts, and local stations for improved fishery and animal production.

34. Subcomponent 1.3: Policy design and regulatory framework—US\$ 0.7 million from IDA. This subcomponent aims at strengthening MEP's efficiency and effectiveness by supporting policy formulation and developing the attendant legislation for improving the livestock and fisheries regulatory environment.²¹ This area of weakness needs specific support. Activities will include, wherever necessary, updating and/or

¹⁹ To this end, the project will liaise closely with PRAPS-ML. It will sustainably promote the national vaccine production capacity for NCD and PPR through the acquisition of a freeze dryer (lyophilizer) at the Central Veterinary Laboratory (LCV).

²⁰ DNSV is the Direction Nationale des Services Vétérinaires (National Directorate of Veterinary Services), MEP. The project will finance preliminary and design studies for building construction as well office equipment; the construction will be funded from the government budget. If counterpart funding is not available, other solutions will be sought, including possible renting of office buildings.

²¹ The Mali Drylands Development Project currently under preparation for IDA financing will support similar activities for the Ministry of Agriculture.



developing key general sector policies (such as those regarding general livestock and fishery sector development and trade), as well as specific policies (such as an animal breeding policy, pollution control, fish and aquaculture Master Plan, and so on), and the development of norms and quality and safety standards for animal-sourced products. MEP will have the possibility to undertake specific sector studies, such as a study of livestock identification in relation to the Performance Recording System for inseminated cattle, and Public Expenditure Reviews for the livestock sector. The Project will help build MEP's economic planning and M&E capacities, through initial training and the development of a longer-term partnership with an external institution of international repute.

Component 2: Support to Private Investment—US\$ 43 million (US\$ 30.1 million from IDA, US\$ 0.5 from the Government, US\$ 9.4 million from PFIs and US\$ 3.0 million from beneficiaries)

35. Component 2's objective is to strengthen the competitiveness of targeted livestock VCs—cattle and small ruminants (meat and dairy), poultry (eggs and chickens), and fish farming (aquaculture)—by supporting partnerships between VC actors and facilitating their access to markets. It will improve competitiveness by modernizing and intensifying livestock operations and achieving critical scales of operation to ensure profitability and generate employment all along the VCs. To this end, Component 2 will: (i) support VC economic organization and investment incentive framework; (ii) facilitate the preparation of business plans and access to finance; and (iii) contribute to the funding of Productive Partnerships (PPs) in close relationship with Partner Financial Institutions (PFIs), as well as microprojects.

36. Subcomponent 2.1: Economic organization and incentive framework—US\$ 8.1 million from IDA. Subcomponent 2.1 will adopt a market-oriented approach for all targeted VCs and create an enabling environment for promoting investment initiatives involving all interested stakeholders in these VCs. This subcomponent will finance primarily institutional support to professional organizations, Technical Assistance (TA) to identify VC markets and promote VC products, and the building of selected market infrastructures. The following specific activities will be implemented: (i) the project will capitalize on knowledge of the livestock sector, focusing on VC organization and market opportunities, by preparing or updating VC competitiveness studies and master plans (including related market studies), and reviewing and disseminating information on sector regulations; (ii) professional and inter-professional entities will be established and/or further strengthened, with a focus on better governance and preparation and implementation of strategic action plans; (iii) VC products will be promoted nationally and regionally (West Africa), and possibly elsewhere internationally; (iv) the emergence and development of investment initiatives will be facilitated by prospecting for business opportunities, identifying private investors, and developing framework commercial agreements; and (v) rehabilitating and/or building a few critical infrastructures for market access, including livestock, poultry, and fish markets, culling platforms, as well as milk collection and conservation centers; access roads will be constructed as required per special request to the Bank-financed Rural Roads project (FY18).

37. Subcomponent 2.2: Support to investment cycle—US\$ 4.8 million from IDA. Subcomponent 2.2 will support the preparation of the business plans required to set up the Productive Partnerships (PPs) and Microprojects (MPs) to develop and implement the PADEL-M investment portfolio with private operators. As a first set of activities, this subcomponent will provide various kinds of TA support all along the investment cycle—for preparing, negotiating, and following up on the implementation of business plans. This support will be provided through (i) a TA contract for the PP window (the consultant firm will maintain a close relationship



with PFIs throughout the investment cycle from start to finish); and (ii) a delegated authority contract²² to develop and manage the MP portfolio for the MP window (under this contract the consultant firm will assume full responsibility for technical design, procurement, and management of funds for implementation of the MPs). Under both windows, contracts will be performance-based, and the consultant firms will be responsible for ensuring the required quality control. Business plan proposals will be submitted: (i) for the PP window, to a National Approval Committee, chaired by the Project Coordination Unit (PCU) and including participation of all involved stakeholders (professional organizations, PFIs, TA providers, etc.); and (ii) for the MP window, to decentralized committees with stakeholder participation. A second set of activities involves building capacity for PFIs, which will receive support to develop the relevant know-how and specific tools to address the financial needs of stakeholders in the targeted livestock VCs. As a result, PFIs will be better equipped to analyze and mitigate the risks linked to investing in the livestock sector. A final set of activities supports communication and awareness campaigns for livestock producers and other VC stakeholders to learn about the project funding approach, workshops on financing instruments adapted to the targeted VCs, and advice on financial management, among other topics.

38. Subcomponent 2.3: Investment financing—US\$ 30.1 million (US\$ 17.2 million from IDA, US\$ 0.5 million from the Government of Mali, US\$ 9.4 million from PFIs, and US\$ 3.0 million from beneficiaries). The main output of Subcomponent 2.3 will be the funding and implementation of investment initiatives by investors in the targeted VCs. Project funding will be provided under two separate windows:

- a) *Productive Partnership (PP) window.* This window will co-fund about 160 business plans for small and medium enterprises (SMEs) requiring an investment of CFAF 15 million (about US\$ 26,000) and above; the proposed financing mechanism will be a blend of funding, in which 60 percent of eligible expenditures on average will be covered through matching grants (MGs) provided by the project, 30 percent through loans from PFIs, and 10 percent through cash provided by beneficiaries. MGs will not be transferred directly to beneficiaries but will be deposited with the PFIs to guarantee their loans to beneficiaries, under conditions to be negotiated between individual investors and PFIs. The purpose of this mechanism is to develop sustained business relationships between beneficiaries (livestock producers and other economic agents in the targeted VCs) on the one hand and PFIs on the other, starting right at investment inception.
- b) *Microproject (MP) window.* This window will co-fund about 600 investment initiatives for very small enterprises (VSEs) through MGs for investments of less than CFAF 5 million (about US\$ 9,000). The MG will amount to a maximum of 80 percent of eligible investment expenditures. Bank credit will not be required for MG disbursement, and beneficiaries will be allowed to provide their contribution in kind. This window will target vulnerable groups, particularly women and youth.

39. Under both windows, women and youth will receive preferential treatment. These two groups will be required to fund only 5 percent of eligible expenditures under the PP window and 10 percent only under the MP window. The eligibility and selection criteria, as well as the guidelines for appraising and approving MGs for both windows, will be detailed in a special implementation manual for the project's line of funding for the PPs and MPs acceptable to the World Bank, to be prepared within a year of Credit effectiveness. The demands of potential promoters (the individuals or groups active in a targeted VC, who initiate the development of

²² In the form of *Maîtrise d'Ouvrage Déléguée*.



investment initiatives) for the PP window and their readiness to join PPs will be assessed at project inception to gauge the requirements and implementation modalities.

Component 3: Crisis Prevention and Management, and Project Coordination -- US\$11.6 million (US\$9.4 million from IDA, and US\$2.2 million from the Government of Mali)

40. The objective of this component is not only to develop mechanisms for preventing and responding to severe crises and emergencies in the livestock sector, but also to strengthen project coordination capacities within MEP. Accordingly, its two subcomponents relate to: (i) crisis prevention and management and (ii) institutional support and project management.

41. Subcomponent 3.1: Crisis prevention and management—US\$ 2.1 million (US\$ 1.7 million from IDA and US\$ 0.4 million from the Government of Mali). Subcomponent 3.1 supports two main activities. The first is to operationalize a new Crisis Prevention and Management Unit (CPMU)²³ within MEP by providing equipment (computer hardware and software, office furniture, vehicles, etc.), training, and resources for specialized studies and communication campaigns. The second activity encompasses the development and operationalization of crisis prevention and management tools, including the establishment of forums for crisis management in the 11 regions of Mali and at the national level (as well as participation in international crisis management forums in West Africa and the Sahel), a Contingency Emergency Response Component (CERC), and a mechanism to monitor and evaluate crisis management in the sector. In this effort, the project will collaborate fully with PRAPS-ML, which supports the management of pastoral crises or emergencies.²⁴ Crisis response plans will be developed with a view to reaching the most vulnerable members of affected communities (youth, women, the elderly) as a priority.

42. CERC will have initial financing equivalent to US\$ 1.3 million, jointly provided by IDA (US\$ 1.0 million, approximately 75 percent) and the government (US\$ 0.3 million, approximately 25 percent), so that it can initiate operations immediately if a severe crisis or emergency has a major impact on sedentary animal production and/or project VCs (including aquaculture). If such a crisis develops, the government may request the World Bank to reallocate project funds to cover some costs of emergency response and recovery. Detailed operational guidelines acceptable to the World Bank for implementing the project CERC will be prepared during the first six months of project implementation. All expenditures under this CERC will be in accordance with paragraphs 11, 12, and 13 of World Bank OP10.00 (Investment Project Financing). They will be appraised and reviewed to determine if they are acceptable to the World Bank before any disbursement is made. Disbursements will be made against an approved list of goods, works, and services required to support crisis mitigation, response, recovery, and reconstruction.

43. Subcomponent 3.2: Institutional support and project coordination—US\$ 9.5 million (US\$ 7.7 million from IDA and US\$ 1.8 million from the Government of Mali). Subcomponent 3.2 provides material support to MEP directorates at the central level and in regional offices to enable the project to operate. Beyond that, this subcomponent focusses on all aspects of project management and coordination—essentially the operations of

²³ This unit, to be created and staffed by MEP, must be able to ascertain whether a crisis has arisen, respond to the Food Security Commissariat (CSA) when necessary, and coordinate an operational response to animal health crises, crises induced by natural disasters, and market crises in the livestock sector (including aquaculture). The unit's position within the MEP organizational chart and its mandate are to be officially defined by the authorities within six months after Credit effectiveness.

²⁴ PRAPS-ML has already developed a CERC dedicated to pastoral crises, which will also be managed by the CPMU in the future.



the PCU to be established under a sharing arrangement with the PCU of PRAPS-ML. This subcomponent supports Steering Committee meetings and provides funds for (among other items) training and equipment to modernize MEP (computer hardware and software, office furniture, vehicles, etc.) at the central level and in the field, as well as all PCU activities required to manage IDA funds, procure IDA-funded goods and services, and conduct project M&E, including the implementation of safeguard mitigation measures in accordance with agreed-upon procedures. In addition, this subcomponent funds the generation of data on the livestock sector in Mali (including aquaculture), knowledge management, advocacy for livestock sector financing, and communication campaigns. Activities under this subcomponent will be geared to benefit women and youth in every way possible.

C. Summary Project Cost and Financing

Table 1: Project costs and financing

Project components/subcomponents	Project costs (US\$ millions)	IDA (US\$ millions)	% IDA	Beneficiaries (US\$ millions)	PFI (US\$ millions)	Government (US\$ millions)
Component 1: Strengthening of Livestock Services						
1.1: Animal health and food safety	10.5	8.9	15	1.2	0.0	0.4
1.2: Productivity enhancement	12.6	10.9	18	0.0	0.0	1.7
1.3: Policy design and regulatory framework	0.7	0.7	1	0.0	0.0	0.0
Sub-total	23.8	20.5	34	1.2	0.0	2.1
Component 2: Support to Private Investment						
2.1: Economic organization and incentive framework	8.1	8.1	13	0.0	0.0	0.0
2.2: Support to investment cycle	4.8	4.8	8	0.0	0.0	0.0
2.3: Investment financing	30.1	17.2	29	3.0	9.4	0.5
Sub-total	43.0	30.1	50	3.0	9.4	0.5
Component 3: Crisis Prevention and Management, and Project Coordination						
3.1 Crisis prevention and management	2.1	1.7	2.8	0.0	0.0	0.4
3.2 Institutional support and project coordination	9.5	7.7	12.8	0.0	0.0	1.8
Sub-total	11.6	9.4	15.6			2.2
Total project costs	78.4	60.0	100	4.2	9.4	4.8

D. Lessons Learned and Reflected in the Project Design

44. The project design reflects the current international consensus on livestock development. It draws on the specific operational experiences from IDA-financed projects implemented in Mali and other countries, as well as on lessons from Bank reviews and other external review initiatives. Specifically, the design is predicated on lessons from the following significant projects: (i) the IDA-financed Agricultural Competitiveness and Diversification Project (PCDA, FY 2006 / Cr. 4195), which has supported crop and livestock VCs, particularly the development of the dairy and poultry VCs; (ii) PRAPS-ML (FY 2016), focusing on pastoralism; (iii) WAAPP for Mali (WAAPP-M, FY 2011); (iv) the recently approved Mali PACAM (FY 2016), Cameroon Livestock Sector Development Project (PRODEL, FY 2016), and Burkina Faso PADEL-B; and (v) the pioneering Colombia Productive Alliance Project (FY 2004) and numerous subsequent Productive Alliance (PA) development projects



in the Latin American and Caribbean region.²⁵ The project design also draws on reviews by the Bank's Independent Evaluation Group (IEG), by OIE as part of the Evaluation of Performance of Veterinary Services (PVS) pathway, and by ILRI.

45. Major lessons from these various projects and reviews informed project design:

- a) *Animal and public health activities* were designed based on OIE PVS and ILRI recommendations. Mali participates in the PVS pathway, a global OIE program for sustainably improving national veterinary services to comply with international standards. The PVS pathway reviews provide objective, harmonized qualitative and quantitative information to identify priorities and guide investments. ILRI has produced evidence that significant nutritional benefits (especially in poorer segments of the population) typically accompany livestock development.
- b) *Regarding MGs and PPs*, PCDA demonstrated how MGs can improve dairy and poultry farm productivity, while incentivizing producers and processors to invest in mitigating environmental impacts and adopting food safety technologies. The PA projects in Latin America pointed to similar benefits and also identified bottlenecks in organizing producers into groups or cooperatives, such as insufficient awareness of the value added by POs and the difficulty of establishing reliable PAs through formal contractual agreements between stakeholders in VCs.
- c) *VC development* activities in the proposed project were informed by the IEG review of World Bank experience in agriculture and agribusiness. This review identified critical activities and advice for improving supply chain competitiveness, such as: (i) supporting production is important (the PADEL-M design integrates lessons from WAAPP on the adoption of new technologies and benefits of supporting demonstration activities); (ii) strong marketing and market infrastructure is essential; and (iii) TA is important, particularly to support the quantity and quality of production while improving access to markets and credit to consolidate the investment provided. Experience with PA projects in Latin America highlights steps that PAs should take to overcome market barriers for producers: (i) involve PFIs such as commercial banks at the beginning of investment initiatives; (ii) work with buyers to sustain and scale up activities when project funding ends; and (iii) emphasize VCs in which producer/buyer partnerships operate to remove constraints and help roll out the partnership model.
- d) *Crisis prevention and management* elements of the project draw on early lessons from PRAPS-ML concerning crisis management, especially the benefits of depositing initial funding in a CERC and providing resources for a countrywide response (IRM).

E. Implementation

A. Institutional and Implementation Arrangements

46. Responsibility for implementing the project, including managing environmental and social risks, will rest with MEP. The project will be implemented over six years and cover the entire national territory. The six-year duration is intended to provide a realistic timeframe for implementation. Experience with similar projects demonstrates that for PADEL-M to achieve its planned outcomes it is vital to allocate sufficient time. Time is

²⁵ World Bank (2016), "Linking Farmers to Markets through Productive Alliances: An Assessment of the World Bank Experience in Latin America."



required not only to strengthen services (improving service delivery, building capacity, etc.) under Component 1, but (even more so) to develop private sector initiatives under Component 2. Corresponding expenditures are likely to be made earlier to support certain services (such as vaccinations) than to fund sustainable PP operations, which will require a longer investment cycle.

47. The governance structure is modeled after PRAPS-ML and includes a Steering Committee (COFIL) and Technical Committee (CT), meeting at regular intervals, with all necessary representative membership. The Steering Committee will be chaired by the Minister for Livestock and Fisheries (or representative). It will provide guidance for the project and approve the Annual Work Plan and Budget (AWPB) as well as progress reports. The Technical Committee will be responsible for monitoring project implementation; it will be chaired by the Secretary General of MEP and comprise all relevant technical stakeholders. At the local level, the existing regional coordination committees (CRs) will be involved in implementing the project and will help to assess progress in the field. The project implementation mechanism will consist of a PCU based in Bamako and field staff based in all MEP regional directorates in charge of VC development (DRPIAs). The mechanism will also involve Focal Points in MEP's central directorates and in the ministries in charge of environment and social affairs (to facilitate adherence to environmental and social safeguards).

48. As advocated by the authorities, the PCU for PADEL-M will be fully mainstreamed within the structure of MEP, under the ministry's General Secretariat and alongside the PCU for PRAPS-ML, with which it will maintain a sharing arrangement. Specifically, the two project teams will operate in close synergy under the same National Coordinator, and the teams will be housed in the same building. The sharing arrangements adopted by the two PCUs are the precursor of arrangements for "sector PCUs," which, as agreed in principle with the government, will serve ongoing and future projects in given sectors. The PCU of PADEL-M will work in close coordination with the technical directorates of MEP at the central and regional levels to execute and monitor project implementation. The National Coordinator who will head the combined PCUs will be competitively recruited among high-level civil servants in Mali and remunerated by the government; his/her signature will be required to commit project financing. S/he will be assisted by a team of high-caliber, competitively recruited consultants covering all technical or administrative functions deemed critical for proper project implementation and management. The cross-cutting functions of project management, including the fiduciary functions, will be pooled for both projects, and technical expertise will be shared between the two projects to the extent possible.

49. At the technical level, the current expertise²⁶ available for PRAPS-ML will be complemented to cover the additional requirements of PADEL-M, including a Technical Director and his/her Secretary, experts in Public Health, Animal Production, Aquaculture, Livestock VCs, and Rural Finance. The Animal Health Expert, the Infrastructure Expert, and the Crisis Management Expert will be shared by the two projects. The following cross-cutting project management functions will be pooled: (i) financial management (a joint Administrative and Financial Officer, with an Accountant and Accounting Assistant for each project); (ii) auditing (the internal audit function will be pooled through an Internal Auditor, and the two projects may possibly use the same external audit firm); (iii) procurement (a joint Procurement Officer, with a Procurement Assistant for each project); (iv) M&E (a joint M&E Officer, with an M&E Assistant for each project as well as a pooled team of 11

²⁶ Which includes a Technical Director, an Animal Health Expert, a Natural Resource Management Expert, an Infrastructure and Market Access Expert, and a Crisis Management Expert.



field staff to cover all administrative regions²⁷ where the project will operate); (v) information technology, gender, and social and environmental safeguards (an Expert in each of these fields will be shared by both projects); and (vi) communications (an Expert and an Assistant together will cover both projects). All of these staff positions will be funded by IDA, either under existing PRAPS-ML arrangements or new PADEL-M arrangements. For administrative simplification, the shared PCU staff at the central and field levels will have joint terms of reference (ToRs) but will be financially supported by a single source.²⁸ Support staff at central and regional levels will be financed by national counterpart funding.

50. At the central level of MEP, relevant technical directorates will appoint Focal Points to support implementation of PADEL-M activities (as with PRAPS-ML). The PCU for PADEL-M will sign partnership or technical agreements with these technical directorates and other public partnering entities to carry out PADEL-M activities within their respective mandates. At the regional level, the joint field staff of PADEL-M and PRAPS-ML will disseminate project information, collect data, and monitor and report on project activities across the nation.

51. The Project Implementation Manual (PIM), to be adopted within three months following project effectiveness, will be a compendium of procedures for implementing the project (administrative, fiduciary, M&E, procurement, and social and environmental safeguards procedures). It will include detailed ToRs for all PADEL-M/PCU staff. A specific manual for managing the CERC will be prepared and validated no later than six months after project effectiveness; it will draw from a similar manual prepared for PRAPS-ML. A manual for managing the private sector funding windows under Subcomponent 2.3 will also be prepared and validated no later than a year after project effectiveness.

²⁷ Eleven field staff will cover all 11 administrative regions (10 regions and the district of Bamako). Since PRAPS-ML already has field units in three regions, the number of additional staff to be financed by PADEL-M is eight. Field staff will be operational for both projects.

²⁸ Staff funding will be supported either by PRAPS-ML or PADEL-M, depending on positions, as detailed in Annex 1. Drawing on respective IDA Credit amounts, approximately 60 percent of the pooled staff will be financed by PADEL-M and 40 percent by PRAPS-ML.



F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The project will have a countrywide coverage, but activities will concentrate on main livestock and fish farming production areas which will emerge during project implementation. The Project will focus on the sedentary livestock systems, which are not dealt with by PRAPS-ML currently under implementation. It will also complement the PACAM project under implementation. The Project will focus on the main livestock value chains, including aquaculture (meat from cattle and small ruminants, milk, poultry meat and eggs, farmed fish). Commercially attractive businesses regarding other animal value chains (apiculture, hog production, ...) may also qualify for project support as diversification areas.

G. Environmental and Social Safeguards Specialists on the Team

Emeran Serge M. Menang Evouna, Environmental Safeguards Specialist
Bougadare Kone, Environmental Safeguards Specialist
Mahamadou Ahmadou Maiga, Social Safeguards Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The Project is a category B and is expected to have moderate to limited risks and impacts, mostly site specific and easily manageable. An ESMF has been prepared as precise investment locations/sites will be known during project implementation. It will be consulted upon and publicly disclosed in-country and Infoshop prior to appraisal. The ESMF clearly covers the issue of potential handling and disposal of veterinary medical wastes that may be generated as a result of the project. In the case of an outbreak of animal diseases, the ESMF considers the measures that will be taken in the event that large numbers of animals need to be destroyed as part of the emergency response. There are a number of social safeguards issues as well as general social development impacts that are not covered by 4.12 that are addressed in the ESMF (potential conflict over land, gender gaps, land tenure and poverty, etc.).



Natural Habitats OP/BP 4.04	No	The Project will not support activities in areas which critical habitats may be threatened.
Forests OP/BP 4.36	Yes	The Project will not support activities related to forest exploitation or management, and it will not have potential adverse impacts on forested areas. However, the Project might engage in reforestation activities as part of sub-projects or as a compensatory measure. The ESMF developed in line with OP/PB4.01 has included a chapter dealing with issues related to forest management.
Pest Management OP 4.09	Yes	The Project will not support activities dedicated to pest control for plant production or crop management. It will use veterinary drugs and vaccines to prevent and control animal diseases (handling and disposal of veterinary wastes will be considered in the ESMF), but the project will not attempt to manage the vectors of such diseases. The ESMF developed in line with OP/PB4.01 includes a chapter dealing with all issues related to the use of chemical products.
Physical Cultural Resources OP/BP 4.11	Yes	It is very unlikely that the Project will encounter physical cultural resources during the implementation phase. However, in the likelihood such encounter occurs, the ESMF includes clear “chance finds” procedures that will be required for identification, protection of cultural property from theft, and treatment of discovered artifacts.
Indigenous Peoples OP/BP 4.10	No	There are no Indigenous Peoples in Mali and in the project intervention areas as defined by the World Bank.
Involuntary Resettlement OP/BP 4.12	Yes	Under component 2, the project intends to finance farmers and other operators who become part of a value chain (market access for their products through downstream processing, and small processing units supported by private industrials or small farmer’s cooperatives such as dairy pasteurized/yoghurt making units, and/or small butchers’ workshop to supply local communities, ...) as well as fish-farms, all of which may lead to land acquisition with loss of assets or restriction to access to these source of livelihood resulting in the payment of compensation to project affected persons (PAP). Since investment locations/sites are not yet known and will only be known during project implementation, a Resettlement Policy Framework



		(RPF) has been prepared and will be used as a guide to prepare specific Resettlement Action Plans (RAPs) as needed to meet the Strengthening Prevention and Response Mechanisms to crises and emergencies requirements as well. The RPF will be consulted upon and publicly disclosed both in-country and at the Inforshop prior to Appraisal. It will provide clear guidance to the project during implementation.
Safety of Dams OP/BP 4.37	No	The implementation of the project will not entail the construction of new dam, neither will any of the project activities/sub-activities rely on the performance of an existing dam or a dam under construction (DUC) that draw directly from a reservoir controlled by an existing dam or a DUC, diversion dams or hydraulic structures downstream from an existing dam or a DUC, where failure of the upstream dam could cause extensive damages to or failure of the new Bank-funded Dam.
Projects on International Waterways OP/BP 7.50	No	This project will not involve extraction of water from any international waterways (any river, canal, lake, or similar body of water that forms a boundary between, or any river or body of surface water that flows through, two or more states, whether Bank members or not). In addition, the project will not impact any tributary or other bodies of surface and ground water that are a component of any waterway described above.
Projects in Disputed Areas OP/BP 7.60	No	Although the country is facing some security challenges up in the northern part, the project foreseen footprint is not located in Disputed Areas as defined by OP/BP 7.60.

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

No irreversible adverse impacts are anticipated as described in the components (improved access to livestock services and inputs, livestock value chains development, crisis prevention & management, and Project coordination). Crisis Prevention & Management is to strengthen mechanisms for preventing and responding to severe crisis and emergencies in the livestock sector in a climate change context. Indeed, the Project intends to support plans to control key animal diseases, including the related capacity building of field veterinary services and the supply of veterinary



drugs. In addition to that, the Project will focus on technical advisory services, genetic improvement, and access and/or production of animal feed, as well as related zootechnical and extension services. Potential adverse impacts, such as water consumption and land use, are expected to be moderate and reversible under appropriate mitigation measures because the project will relate exclusively to sedentary livestock systems. On the social part, conflicts between breeders and farmers could rise due to competition for land use. These risks can, however, be substantially reduced by using appropriate environmental and social safeguards measures.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: The livestock sector is subject to climate change-related threats in Mali. No long-term adverse impacts due to project activities are foreseen. On the contrary, the proposed project is supporting access to livestock services, inputs and livestock value chains development (mainly poultry, beef, small ruminants, milk, and aquaculture). Potential indirect impact can be linked to the security level in the country, particularly the northern regions.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts. Sub-projects will be subject to an environmental and social screening prior to selection for investment.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The borrower has established an environmental and social safeguards management capacity under previous Bank funded projects: PPAO, PCDA, PACAM, and PRAPS-ML. Qualified environmental consultants were hired to monitor safeguards compliance throughout the project implementation period of these operations; they documented progress, identified issues of concern and provided recommendations to address issues identified. Furthermore, these projects provided (i) extensive training to producer organizations, community-based organizations and private sector service providers in the areas of animal health, pastoralism, soil conservation, product processing, environmental and social screening of sub-projects. This Project is also expected to work closely with ongoing PRAPS-ML and share some staff including environmental and social safeguards specialists. The proposed project is rated as EA category "B" and triggers five safeguards policies which are OP/BP 4.01 (Environmental Assessment); OP/BP 4.36 (Forests); OP/BP 4.09 (Pest Management); OP/BP 4.11 (Physical Cultural Resources); and OP/PB 4.12 (Involuntary Resettlement). Considering that the exact geographic locations of project specific interventions are not yet determined with certainty, the borrower prepared two environmental and social safeguards instruments, namely an Environmental and Social Management Framework (ESMF), and a Resettlement Policy Framework (RPF), in compliance with the core requirements of the safeguards policies triggered. The ESMF has also made provision to address basic requirements from both OP/BP 4.36 (Forests), OP/BP 4.09 (Pest management) and OP/BP 4.11 (Physical Cultural Resources). The ESMF and the RPF were reviewed and cleared by the Bank and the Government and disclosed both in-country on October 24, 2017 and at the World Bank site on October 24, 2017. The Project will continue strengthening the environmental and social management capacity of the borrower, at project unit level, as well as at the level of livestock breeders. The beneficiary breeders will be provided with environmental and social safeguards sensitization, including safe waste management that may result from drugs use.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The key stakeholders are the beneficiary communities, agro-processors, farmers, ministries in charge of livestock, water resources and environment, as well as their relevant agencies/departments, municipalities, NGOs and other relevant institutions. One of the key principles of this project from the outset is to foster participation of all relevant stakeholders. This approach will be sustained throughout project implementation. The environmental and social assessment studies, namely the ESMF and RPF, have also been carried out according to the same principle, using



broad-based public consultation approach and involving the above stakeholder groups. The objective was to raise awareness of project activities and impacts and foster ownership on their part. All the relevant bodies have been adequately informed of the Project. Concerns of the communities and some details of consultations have been taken into account in the body of the different reports and other results provided as annexes. The key concerns raised during the consultation process included: (i) permanent information and sensitization of the population, (ii) compensation process for those impacted by the project, (iii) participation of local population as employee on works they qualify for, (iv) the involvement of NGOs and state technical services during the execution of works. All these concerns have been addressed in the alternatives proposed through the developed safeguards instruments.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
10-Oct-2017	24-Oct-2017	

"In country" Disclosure

Mali
24-Oct-2017

Comments
Document will be disclosed within country, as soon as approved

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank	Date of submission for disclosure
18-Oct-2017	24-Oct-2017

"In country" Disclosure

Mali
24-Oct-2017

Comments
Document will be disclosed within country, as soon as approved

Pest Management Plan

Was the document disclosed prior to appraisal?	Date of receipt by the Bank	Date of submission for disclosure
NA		



"In country" Disclosure

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP 4.09 - Pest Management

Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

No

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

NA

OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes

OP/BP 4.12 - Involuntary Resettlement



Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

OP/BP 4.36 - Forests

Has the sector-wide analysis of policy and institutional issues and constraints been carried out?

NA

Does the project design include satisfactory measures to overcome these constraints?

NA

Does the project finance commercial harvesting, and if so, does it include provisions for certification system?

No

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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APPROVAL

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