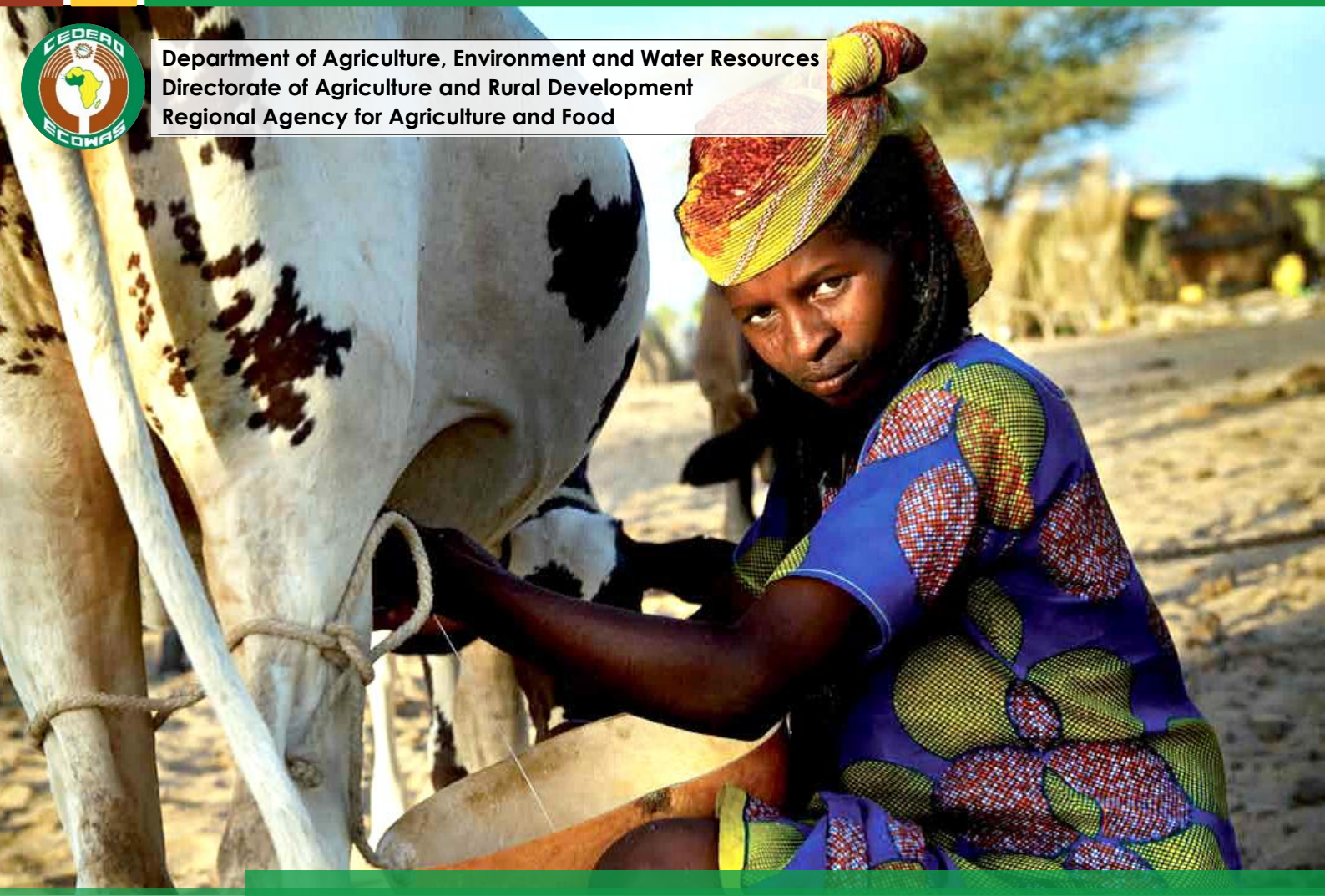
Department of Agriculture, Environment and Water Resources
Directorate of Agriculture and Rural Development
Regional Agency for Agriculture and Food



Regional Offensive for local milk value chains promotion in West Africa

Priority Investment Programme Document

June 2020

Priority Investment Program Document - Regional offensive for local milk value chains promotion in West Africa

June 2020

The formulation of the milk PIP was carried out based on an inclusive and participatory process that took place in several phases, under the initiative of the Department of Agriculture, Environment and Water Resources (DAERE) of the ECOWAS Commission and the regional networks of POs (ROPPA, RBM, APESS) that show a particular concern for the local dairy chains situation.

In January 2016 in Abuja, Federal Republic of Nigeria, the Specialized Technical Ministerial Committee on Agriculture, Environment and Water Resources starts the formulation process with a decision to devote a major initiative to milk, during the validation of the Regional Agricultural Investment Plan for Second Generation Food and Nutrition Security.

The year 2018 was devoted to the formulation of the offensive concept note, which helped define the issue of the local milk value chain development in West Africa, by identifying the issues and challenges, as well as the orientations. This concept note was then validated by a select steering committee. The validation of the concept note paved the way for the realization of reference studies: the milk sector profile in all fifteen States of the Community, including Chad and Mauritania; an overall synthesis; an in-depth profile on the case of Nigeria; a study on the role of local milk in strengthening the resilience of pastoral populations; an analysis of the commercial implications of dairy policies and numerous decision support notes. This phase was marked by a very strong collaboration between ECOWAS, socio-professional organizations (RBM, APESS, ROPPA) and international NGOs, notably OXFAM, CARE Denmark and SNV.

In June and July 2019, a workshop was organized with the view to capitalize on good practices carried by States, socio-professional organizations and the private sector. This workshop provided an opportunity to review numerous past and current initiatives on the four dimensions of the value chain that are of concern to stakeholders at different levels: milk production; collection and processing; marketing and distribution; and the public policies deployed by the Community and the Member States. This workshop also helped lay the foundations of a priority investment program for the local milk value chains development in West Africa. This program capitalizes on relevant models with the potential for a rapid return on investment, job creation and household resilience strengthening.

On 29 May 2020, under the chairmanship of the ECOWAS Commissioner for Agriculture, Environment and Water Resources, the priority investment programme, which is the subject of this document, was validated. The regional validation workshop, held by videoconference, was attended by all ECOWAP/CADP stakeholders: the ECOWAS and UEMOA Commissions, the 15 Member States, the 12 PROs (ROPPA, RBM, APESS, AFAO, NANTS, CORET, COFENABVI, ROAC, WILDAF, FEWACCI, UFOA, PANEPAO), civil society (POSCAO, CARE, OXFAM, CARE, Local Milk Regional Campaign), specialized regional institutions (CILSS, CSAO/OCDE, CORAF, FAO) et les PTF (DDC, AFD, EU, ADB).

This Priority Investment Program (PIP) was carried out in the framework of the implementation of ECOWAP 2025 and the Annual Work Plan 2020 of the ECOWAS Directorate of Agriculture and Rural Development (DADR) and the Regional Agency for Agriculture and Food (RAAF).

The process of formulating the Milk PIP up to its validation was financially supported by Swiss Cooperation.

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The ECOWAS strategic documents for the implementation of Decision A/DEC.11/01/05 adopting the ECOWAS Agricultural Policy (ECOWAP) in accordance with the Comprehensive Africa Agriculture Development Programme (CAADP) set out the Outcomes of inclusive and iterative work. They are published for reference, information and exploitation to ECOWAS citizens and Member States, public, private, national, regional and international non-state actors.

Comments on this document can be sent to the ECOWAS Directorate of Agriculture and Rural Development, by mail or e-mail. **agric_ruraldev@ecowas.int**

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ECOWAS DIRECTORATE OF AGRICULTURE RURAL DEVELOPMENT (DADR)

Placed under the supervision of the Commissioner in charge of the ECOWAS Department of Agriculture, Environment and Water Resources, the Directorate of Agriculture and Rural Development, based in Abuja (Nigeria) is one of the five (5) constitutive directorates of the Department.

Mission

In accordance with Article 25 of the revised ECOWAS Treaty on Agricultural Development and Food Security, the Directorate of Agriculture and Rural Development' mission is to "help meet in a sustainable manner the food needs of the West African populations, to contribute to economic and social development and to poverty reduction in Member States, as well as inequalities between territories, localities and countries" through the implementation of the ECOWAS Agricultural Policy (ECOWAP) related adoption Decision A/DEC.11. /01/05 and all decisions of the ECOWAS management, steering, governance and decision-making bodies in the Agricultural and Food sector.

More specifically, these include:

a. Defining, harmonizing, adopting and monitoring the implementation of policies, strategies, action plans, initiatives and regulatory mechanisms in the agro-sylvo-pastoral and fisheries sectors (ASPH);
b. Defining, harmonising and monitoring the implementation of regional strategies and initiatives in the field of rural development (land and agricultural infrastructure);
c. Helping to ensure Health and Plant Health Security as well as Food and Nutrition Security;
d. Ensuring regional coordination for Developmental and Applied Research in the ASPH sector;
e. Ensuring the regional structuring of the ASPH sectors and contributing to trade negotiations in the ASPH sectors;
f. Facilitating the harmonization of ASPH Information and early warning systems;
g. Negotiating and mobilizing external financial resources for the implementation of projects, programmes and initiatives in the ASPH sectors;
h. Developing and ensuring regional and international cooperation with technical institutions for agricultural cooperation and technical and financial partners in the ASPH sector.

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ECOWAS REGIONAL AGENCY FOR AGRICULTURE AND FOOD (RAAF)

Under the supervision of the Commissioner for Agriculture, Environment and Water Resources, the Regional Agency for Agriculture and Food (ARAA) established by Regulation C/REG.1/08/11 is a decentralised entity in Lomé (Togo), endowed with an administrative and financial autonomy.

Mission

ARAA's mission is "to ensure the technical implementation of programmes and the regional investment plan and to contribute to the operationalization of the ECOWAS agricultural policy (ECOWAP) by working with regional institutions, agencies and partners".

More specifically, it is a matter of:

a. Implementing and technically executing ECOWAP, ECOWEP & PREAO projects and programmes
b. Monitoring and coordinating ECOWAP, ECOWEP & PREAO projects and programmes implementation (by institutions, NGOs, ECOWAS partner agencies);
c. Preparing programme estimates for validation by the Supervisory Committee of the Regional Fund for Agriculture and Food (FRAA);
d. Contributing to actor's capacity building with regards to the preparation of dossiers and the implementation of activities;
e. Structuring in conjunction with the ECOWAS Bank for Investment and Development (EBID) approval and management bodies of the Regional Agriculture and Food Funds;
f. Assessing ECOWAP, ECOWEP & PREAO projects and programs implementation;
g. Ensuring effective and efficient financial and accounting management and administration of projects & programmes.

For further details: www.araa.org

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Acronyms and abbreviations

ANIDA	Agence Nationale d'Insertion et de Développement Agricole	National Agency for Agricultural Integration and Development
ANIPL	Association Nationale Interprofessionnelle sur le Lait	National Inter-professionnal Milk Association
APE	Accords de Partenariat Economique	Economic Partnership Agreements
APESS	Association	Association
ARAA	Agence Régionale pour l'Agriculture et l'Alimentation	Regional Agency for Agriculture and Food
CEAP	Champ Ecole Agropastorale	Agropastoral Field School
CEDEAO/ ECOWAP	Communauté Economique des Etats de l'Afrique de l'Ouest	ECOWAS/ECOWAP
CEP	Champ EcoleProducteurs	Producers Field School
CILSS	Comité Inter états de Lutte contre la Sécheresse au Sahel	Inter-State Committee for Drought Control in the Sahel
CNAAS	Compagnie Nationale d'Assurance Agricole du Sénégal	National Agricultural Insurance Company of Senegal
COPEL	Comité de Pilotage Elevage	Breeding Steering Committee
COS	Conseil d'Orientation Stratégique	Strategic Orientation Board
CP	Comité de Pilotage	Steering Committee
DADR	Direction de l'Agriculture et du Développement Rural	Directorate of Agriculture and Rural Development
DAERE	Département Agriculture, Environnement et Ressources en Eau	Department of Agriculture, Environment and Water Resources
FAO	Organisation pour l'Alimentation et l'Agriculture	United Nations Food and Agriculture Organisation
FCFA	Francs de la Communauté Française d'Afrique	Francs of the African French Community
GIE	Groupement d'intérêt Economique	Economic Interest Grouping
LBD	Laiterie du Berger	Shepherd's Dairy
ODD	Objectifs de Développement Durables	Sustainable Development Goals
OIE	Organisation Mondiale pour la Santé Animale	World Organization for Animal Health
OMS	Organisation Mondiale de la Santé	World Health Organization
OP	Organisation de Producteurs	Producers Organization
OPE	Organisation Professionnelle d'Elevage	Professional Breeding Organization
OPR	Organisation de Producteurs Régionale	Regional Producers Organization
PAC	Politique Agricole Commune	Common Agricultural Policy
PAPEL	Projetd'Appui à l'Elevage	Livestock support Program
PDDAA	Programme Détaillé de Développement	Detailed Development Program
PME	Petite et Moyenne Entreprise	Small and Medium Enterprise
PMI	Petite et Moyenne Industrie	Small and Medium Industry
PPI	Programme Prioritaire d'Investissement	Priority Investment Programme
PRAPS	Projet Régional d'Appui au Pastoralisme au Sahel	Regional Project for Pastoralism Support in the Sahel
PRIASAN	Programmes nationaux d'investissement agricole et de sécurité alimentaire et nutritionnel	National Agricultural, Food and Nutrition Security Investment Program
PRODAM	Projet de Développement Agricole de Matam	Matam Agricultural Development Project
PTF	Partenaires Techniques et Financiers	Financial and Technical Partners
TEC	Tarifs Extérieurs Communs	Common External Tariffs
TVA	Taxe sur la Valeur Ajoutée	Value Added Tax

Executive summary

1. Milk is one of the five strategic products selected by the regional agricultural policy given its economic and socio-cultural importance in West Africa. Indeed, it contributes not only to household food and nutrition security, but also to the creation of wealth and employment through income and related production, processing and marketing activities.
2. However, the livestock systems' milk production performance in the region is failing to meet the ever-increasing demand, due to population growth and urbanization, which have greatly altered eating habits.
3. As an Outcome, there is a structural deficit which leads to the importation of large quantities of milk estimated at more than 500 billion CFA francs per year. However, given its current low level, doubling the productivity and output of pastoral and agro-pastoral production systems is quite feasible in the medium term. This assumes, however, a real offensive in the form of massive investments complemented by facilitation and support measures throughout the value chain.
4. In this light, the strategy underpinning the "Milk Offensive", aims at promoting "**A West Africa emerging among the dairy basins of the African continent and gradually increasing its contribution to regional trade in dairy products of community origin**",
5. This Strategy aims at doubling the volume of local fresh milk production by 2030 to 10 billion litres per year.
6. Focused mainly on investments and public policy measures, it hinges interventions around four strategic areas: (i) improving local dairy breed's productivity; (ii) improving the collection and processing of local milk, (iii) improving market access for local dairy products, (iv) promoting a favourable environment for the development of local milk value chains.
7. In the view of implementing the strategy, the present Priority Investment Programme (Milk Offensive PIP) has been designed in an inclusive and participatory manner with the main actors, capitalizing on successful experiences in the region; in order to select development technical and economic models of different links, to be scaled up throughout the region, in the local milk value chain.
8. Beyond these models, measures to promote an environment conducive to local milk value chains development in West Africa are recommended, particularly with regard to livestock insurance and customs duties. The measures will also cover the improvement of marketing conditions, the introduction of quality standards conducive to consumer protection, the adoption of instruments to facilitate access to credit, etc.
9. To this end, the Programme is structured into four components, namely: (i) promoting and scaling up techno-economic entities models for livestock systems productivity improvement, (ii) promoting and scaling up techno-economic entities models for the collection, processing and marketing of local milk, (iii) promoting an environment conducive to local milk sector development of, (iv) piloting, coordinating and facilitating the program implementation.
10. In total, fifteen (15) interventions are proposed throughout the West African countries of the region, covering all links of the local milk value chain, with a focus on improving the productivity of pastoral and agro-pastoral farms as well as the collection-processing-marketing links.
11. The amount required to invest in and manage the programme over a 10-year period is two thousand eight hundred and forty-four billion eight hundred and ten million CFA francs (CFAF 2,844,810,000,000).
12. By 2030, the expected Outcomes are as follows: (i) an additional milk production of more than 9.6 billion litres of milk, (ii) a milk collection and processing capacity of more than 10 billion litres of local milk and 557,000 jobs generated, corresponding to a large overtaking of the Offensive's ambitions.

1. Background and Programme Rationale

Milk, one of the agri-food and nutritional economy issues in West Africa

13. En Afrique de l'Ouest, les animaux sont, non seulement un capital, une source d'activités, de revenus, et d'épargne pour les ménages pastoraux et agropastoraux, mais aussi un déterminent de la résilience desdits ménages face aux chocs climatiques. Grâce aux produits et revenus qu'il génère et à l'emploi qu'il offre à travers la production, la transformation et la commercialisation du lait, le secteur agropastoral contribue également de manière significative à la sécurité alimentaire et nutritionnelle des ménages, ainsi qu'à leur bien-être. La consommation de lait dans la sous-région ne cesse de croître avec l'expansion démographique, l'accélération de l'urbanisation et la modification notable des régimes alimentaires. Cependant, les performances de la filière laitière de la région ne parviennent pas à répondre à cette demande de lait des populations. Selon les données de la FAO, l'offre domestique ne couvre qu'environ 70 % de la demande, avec de très fortes disparités entre les pays côtiers et sahéliens. Par ailleurs, la consommation moyenne de la sous-région est de 50l/habitant/an ce qui est en deçà des normes OMS/FAO qui est de 90l/habitant/an.

West African dairy industry development in substitution to imported powdered products is at the heart of the region's emerging economies issues.

14. In order to fill the ever-growing gap, the region is resorting to increasingly massive imports, thus widening the trade deficit in this product. The value of imports of milk and dairy products is close to US$1 billion. Like other products, such as rice, milk is increasingly becoming a drain on foreign exchange which, instead of being so massively devoted to food imports, could have largely contributed to the acquisition of technologies and expertise conducive to the development of a successful dairy industry.

15. A part from the region's dependence, there is also the doubt surrounding the quality of imported milk products. In fact, the imports are mainly focused on skimmed powder (to meet the growing Chinese demand for butter) and re-fattened with palm oil and send back to our countries. Blend Up a non-dairy milk (a mix of almonds or cashew nuts) is also gradually increasing its market share at the expenses of local milk in West Africa.

16. However, structural problems continue to slow down the development of this sector, due not only to low investment but also to major constraints such as (i) low milk productivity of local cows, (ii) low deployment of intensive dairy farming systems, (iii) insufficient use of modern inputs (animal feed and veterinary products), (iv) insufficient promotion of collection centres or mechanisms (cooperatives, MSEs, private companies, multi-service collection centres and daily circuits), (v) the lack of milk value chains industrialization models capable of creating jobs for young people and giving a large place to women, (vi) the insufficient professionalization of actors with the help of functional inter-professional frameworks, (vii) the informal marketing system and the absence of market regulation mechanisms that are sufficiently adequate to secure large market shares for local producers and processors, (viii) insufficient promotion of forms of partnership that stimulate private investment and safeguard the interests of livestock farmers and pastoralists, (ix) the isolation of production areas; (x) the dispersion of herds; (xi) poor access to water during the lean season; (x ii) poor protection of the regional market.

Impacts of international and regional policies on the promotion of the local milk sector

17. In addition to the contraints with which the local milk sector in West Africa faces, international and regional policies are not marginalisez.

18. In terms of trade policy at the regional level, two changes are affecting and will affect the prices of imported products over the next few years, in addition to the lifting of the European milk quota. These are, on the one hand, the implementation of the ECOWAS Common External Tariff (CET) and, on the other hand, the implementation of the Economic Partnership Agreement (EPA) with European Union**.**

19. **The Common External Tariff** (CET): Almost all agricultural products and animal by-products are accommodated in the fifth band at 35% customs duty, with the exception of two: rice, which is taxed at 10% and milk powder at 5%. For milk, the arguments developed are essentially based on the need to guarantee the nutritional security of populations. However, instead of milk, imports are increasingly made up of skimmed products and products containing vegetable fats.

20. **Economic Partnership Agreements (EPAs**1**):** EPAs distinguish four groups (A, B, C, D) of products imported by West African countries from the European Union. Liberalisation concerns groups A, B and C, with a faster pace of liberalisation for group A (within 5 years) than for group C (up to 20 years for full liberalisation). There is some consistency between the ECOWAS CET categories and the EPA product groups. Thus, products in Group D, considered as "sensitive products", are excluded from liberalisation. Products in ECOWAS CET category 4 (35% protection) all belong to group D, as do a large proportion of products in category 3 (20% protection). The least protected products (5%) are liberalized more rapidly.

21. **The end of milk quotas in Europe:** With the end of European milk quotas on 1 April 2015, a significant increase in European milk production is to be expected. According to Agritel, European milk production is expected to increase by approximately 8% by 2020[2]. The European market. Being saturated, this additional production will have to be sold mainly on the world market, not least the West African market. However, the evolution of the competitiveness of milk powder in relation to local milk for West African industries will depend, on the one hand, on the evolution of production in major exporting countries such as the European Union, New Zealand and the United States, and, on the other hand, on the behaviour of consumers in the countries that import the most and emerging countries where consumption patterns are changing, as well as the capacity of these countries to increase their production. These include China, Russia, Japan, Indonesia, Mexico and North African countries.

22. **EU Common Agricultural Policy (CAP):** The CAP includes, among other things, powerful instruments to provide financial support to European producers. Overall, this support remains the 1st item of expenditure (40% of the total) of the CAP. Thus supported, producers have the possibility to sell their products below production costs. These commercial advantages make the EU the world's leading exporter and West Africa's leading supplier of food products, of which milk is the second largest import. The increase in European milk production expected from the end of milk quotas (production is expected to rise from an estimated 450,000 tonnes in 2014 to 650,000 tonnes in 2023) will certainly lead to massive exports to West Africa, which will thus be more constrained to develop its own dairy industry[3]

23. Evidently, the evolution of the international context and the regional trade policies in force are not favourable to the development of local milk sectors. The weak protection of the local market and the market expansion strategies of the countries supplying milk and dairy products to West Africa carry great risks for the dairy agro-food systems and the households of pastoralists and other herders.

.... Real potentialities and opportunities for the development of the local milk sector...

24. Nevertheless, the prospect of developing local milk value chains is all the more conceivable as the region has considerable potential. In fact, West Africa has (i) 30% of African livestock with a significant margin for improving genetic potential, (ii) pasture land whose optimal management would enable extensive systems (the region's leading milk suppliers) to strengthen their productive performance, (iii) numerous agricultural and agro-industrial by-products that can contribute to the improvement of livestock nutrition, (iv) water resources (groundwater, rivers and water points, run-off water) offering opportunities for the development of networks of livestock watering points, (v) nascent dairy industries (mini-dairies, dairy MSMEs/SMIs, multi-service collection centres, etc.), (vi) the development of new technologies (e.g., the development of new technologies for the production of food and drink, the development of new products and services, etc.), and

[1] *Note d'analyse de l'impact des politiques commerciales régionales sur la filière « lait local » en Afrique de l'Ouest, Cécile Broutin, Laurent Levard et Amel Benkahla – Juillet 2015*

[2] *Fourreaux, Renaud, Le lait en ébullition, Agrodistribution n° 257, février 2015.*

[3] *Fourreaux, Renaud, Le lait en ébullition, Agrodistribution n° 257, février 2015.*

(vii) the development of new technologies (e.g., the use of new technologies for the production of food and drink, the development of new products and services, etc.), and (viii) the development of new technologies for the production of food and drink.) and (vi) significant local expertise**.**

25. In addition, the local dairy sector can take advantage of the opportunities offered by the evolution of dietary habits in connection with urbanization and the rise in living standards (emergence) and the community's commitment to strongly increase intra-regional trade in agro-food products.

… The ECOWAS Local Milk Offensive, an opportunity to substantially reduce imports.

26. The ECOWAS objective of doubling production by 2030 will lead to a substantial reduction in imported dairy products to meet the demand for milk It is therefore very timely and relevant that ECOWAS is currently engaged in an offensive to strengthen and develop milk value chains in West Africa. Especially since this Offensive has been the subject of an implementation strategy developed in a participatory and inclusive approach mobilizing all the organizations of regional actors in the sector.

Reminder of orientations, strategy and approach for the Local Milk Offensive.

27. The offensive for the promotion of Local Milk value chains in West Africa launched by ECOWAS carries the vision of a "West Africa that is emerging amongst the dairy basins of the African continent and gradually increasing its contribution to regional trade in dairy products of community origin"

28. As part of the implementation of ECOWAP/CADP, the Offensive aims to increase by twofold the region's milk production by 2030.

29. To achieve this, the Offensive mobilizes (i) the Departments of Agriculture, Environment and Water Resources, Industry and Private Sector, Trade and Customs of ECOWAS and WAEMU, (ii) the Ministerial Departments in charge of Livestock and Pastoralism, Industry and Private Sector, Trade and Customs of Member States, (iii) family pastoral and agro-pastoral farms, (iv) livestock farms and other private entities involved in the intensification of milk production, (v) local milk collection units of all sizes, (vi) local micro, small, medium and large enterprises processing milk of Community origin, and (iv) all types of commercial entities involved in the distribution of that product and its derivatives.

30. With the commitment of all the actors directly involved in the development of the local milk sector, the Offensive will address, as a priority, the main challenges that hinder the emergence of local milk value chains that are sufficiently efficient and sustainable to meet the current and future needs of West African populations.

31. The regional strategy designed for the implementation of the Local Milk Offensive has the overall objective of "**Contributing to the promotion of strategic products for food security and sovereignty in West Africa**", thus aligning itself with the PRIASAN Strategic Orientation Framework (COS).

32. More specifically, the strategy aims to (i) substantially increase local production of fresh milk by improving livestock productivity, (ii) improve supply to the regional dairy industry by substantially increasing the quantities of local milk collected, (iii) promote an incentivised environment for the development of local milk value chains, with a view to strengthening their competitiveness on local markets.

33. In order to achieve these objectives, the strategy is articulated around the four axes of (i) improving the productivity of local breeds, (ii) improving the collection and processing of local milk, (iii) improving market access for local dairy products, and (iv) promoting an enabling environment for the promotion of local milk value chains.

34. These strategic axes of intervention should make it possible to achieve three major Outcomes, namely: (i) regional production of fresh milk has doubled by 2030, (ii) at least 25 % of the volumes of

milk processed by the various categories of dairy industries come from local livestock, (iii) taxation and other trade defence measures on milk and dairy products and regulatory standards (non-tariff barriers) are incentives for the development of local milk value chains.

35. With a view to accelerating, on the one hand, the operationalization of the regional strategy for the promotion of local milk value chains, to assist States, socio-professional organizations and the private sector in structuring initiatives and other investment projects, and, on the other hand, to support the development of the local milk value chain, contribution to the operationalization of the strategy to support the employability of young people in the agro-silvo-pastoral and fisheries sector in the ECOWAS area validated in April 2019, the ECOWAS Commission has undertaken the formulation of a priority regional investment programme in local milk value chains. This regional investment programme is mainly intended to serve as a lever for actions by other stakeholders, including States, socio-professional organizations and the private sector in the promotion of local milk value chains

2. Aims of Programme

36. The programme should give concrete expression to the political will of ECOWAS States to make West Africa emerge among the dairy basins of the continent. Thus, the programme sets out the investments and policy measures, both specific and pragmatic, to be made to strengthen the milk sector at all links of the value chain (production, collection, processing, marketing).
37. It takes account of the Offensive's ambitions to double regional production of local fresh milk from some 5 billion litres at present to 10 billion litres and to collect at least 25% of local fresh milk production for the benefit of the regional industrial fabric by 2030.
38. It should also foster a participatory dynamic of research-action, advisory support, training, capacity building, facilitation of access to financial resources, markets, pastures, animal feed, products. veterinarians and other inputs.
39. In addition, the program is called upon to be a tool for the realization of gender equity in the dairy sector.

2.1 General Objectives

40. The overall objective of this program, based on the regional strategy document, is to help turn West Africa into one of the continent's dairy basins.

2.2 Specific Objectives

41. Specifically, the programme aims to:
    a. Promote and develop models of techno-economic entities for improving the productivity of livestock systems (SO1),
    b. Promote and develop models of techno-economic entities for the collection, processing and marketing of local milk (OS2),
    c. Promote a favourable environment for the development of local milk sectors (SO3), and
    d. Provide leadership, coordination and facilitation of programme implementation (SO4).

2.3 Beneficiaries

42. The direct beneficiaries are the actors in the value chain, namely: producers, collection centres, small-scale and industrial processing units and distributors of dairy products.
43. Indirect beneficiaries are: consumers, governments, input distributors, service providers, et

2.4 Expected effects and impacts

44. In accordance with the objectives set out in the regional strategy, the priority investment programme implementation should have the following effects and impacts by 2030:

(i) Doubling local fresh milk production in the ECOWAS community from 5 billion to 10 billion litres;

(ii) Increasing the share of milk from local livestock in the overall volume of milk processed by the various categories of dairy industries to at least 25% in the ECOWAS region.

3. Detailed description of the programme

3.1 Programme Components

45. The program is structured around four components which take account of the areas of assistance set out in the regional strategy and covers all the links in the local milk value chain.
46. To this end, models of economic entities to be scaled up are proposed, drawing on successful experiences in the region.
47. These models rely on the involvement of all actors, namely operators, states and the private sector, to build competitive value chains adapted to the context of each country in the region and to dairy speculation.
48. To this end, many technical and economic models that include stakeholders, especially small producers, have been explored, but some, despite their potential, could not be retained, given the difficulties of adapting to milk, a rapidly perishable commodity. These include the ESOP model developed in Togo and Benin around the cereal and soybean commodity chains, which facilitates the participation of producers as shareholders in all links of the value chains.
49. Components 1 and 2 focus on scaling up these models, including the implementation of investments, while component 3 concerns the promotion of an enabling environment for the local milk value chain through public policy measures.
50. Component 4 is dedicated to the steering and management of the program.
51. The link between the models of entities proposed in the priority programme and the components of the strategy is established as shown in Table 1.

Table 1: Linking the components of the Strategy with the components and models proposed in the priority investment program

Strategic areas	Components	Program Components and Models
A1. Improving local breeds productivity	**A1.1** Securing livestock feeding and watering	**COMPONENT 1**: Promoting and scaling up of techno-economic entity models for improving the productivity of livestock systems - Entrepreneurial Forage production units - Revolving fund and perpetuation mechanism - Setting up pastoral units - Community-based veterinary services - Mini family type dairy farms - Mass artificial insemination
	A1.2. Improving animal health	
	A1.3. Genetic improvement of local breeds	
A2. Improving the collection and processing of local milk	**A2.1**. Promotion of multi-service milk collection and storage centres	**COMPONENT 2**: Promotion and scaling up techno-economic entities models for the collection, processing and marketing of local milk - Multi-service collection centres - Stakeholder innovation platforms
	A2.2. Promotion of local milk processing units	
	A2.3. Setting up infrastructure and equipment to support collection (access works, energy, multi-service centres, communication equipment)	

	A2.4. Promotion of an adapted industrial tool backed by an adequate system and means of transport and distribution	- Mini dairies - National territory coverage
A3: Improving market access for local dairy products	**A.3.1.** Improving the competitiveness of local dairy products	**COMPONENT 3: Promotion of an environment favourable to the development of the local milk sector** **- Livestock insurance**
	A3.2. Improving the distribution and consumption of local dairy products -	**COMPONENT 2: Promotion and scaling up of techno-economic entity models for the collection, processing and marketing of local milk** - **SME-SMIs processing local milk**
A4 : Promoting an enabling environment for the promotion of Local Milk Value Chain	**A4.1**. Establishment and application of incentives for the development of the local dairy sector	**COMPONENT 3 : Promotion d'un environnement favorable au développement des filières lait local**
	A4.2. Promotion of inclusive business models along value chains	**COMPONENT 1 : Promotion et mise à l'échelle de modèles d'entités technico-économiques d'amélioration de la productivité des systèmes d'élevage** - Family mini dairy farm - Entrepreneurial dairy farm - Livestock bulk purchase
	A4.3. Capacity building and professionalization of value chains' actors	**COMPONENT 1: Promotion and scaling up of techno-economic models for breeding systems' productivity improvement** - Agro pastoral field school

3.1.1 Component 1. Promotion and scaling up of models of techno-economic entities for improving the productivity of livestock systems

52. This first component aims to improve the milk productivity of local farming systems.

To this end, the component adopts a global approach involving the zoo technical, genetic, socio-economic and financial determinants of this process of improving milk productivity. It aims to (i) give priority to strengthening the capacities of family companies and farms, (ii) promote private entrepreneurship, (iii) promote inter-professional partnership. The expected Outcomes of the component are: (1) facilitation of access to livestock feed and veterinary services, (2) improvement of the dairy potential of local cows, and (3) promotion of intensive dairy farms. These actions will be carried out through the dissemination of models scaled up based on successful experiences in the different countries of the West African region.

Outcome 1.1: Models for facilitating access to feed and veterinary services are scaled up

53. The actions implemented to achieve this Outcome mainly concern: (i) securing the supply of inputs, especially animal feed, by setting up national revolving funds and sustainability mechanisms (ii) promoting fodder crops by supporting the creation of fodder production units, (iii) setting up local veterinary services and (iv) building the capacities of producers by organizing agro-pastoral school fields.

Action 1.1.1: Establishment of 15 national revolving funds and mechanisms for sustaining and securing the supply of livestock inputs

54. As a priority, the objective is to ensure continuous access to livestock feed for livestock farmers at a reasonable price by using a seed fund mobilized by the State and by setting up a sustainable self-supply mechanism to manage this feed. To this end, management committees chaired by the local authorities and bringing together all stakeholders are set up in all departments or regions as well as in the local communities that depend on them and have a storage facility. In all stores, food is sold on credit and subsidized by the state up to 50%. However, the food is sold at prices that are in line with the market but take into account the advantages due to group purchasing. The revenues are paid

into a dedicated account managed by the farmers under the supervision of the local authority. By eliminating the high speculation on livestock feed in rural areas, especially during the lean season, this mechanism is considered a relevant and sustainable solution, especially for the most vulnerable herders.

55. This model has been successfully tested in Senegal.
56. In view of the success with animal feed, the range of products concerned is gradually being extended to include production and processing equipment and fodder seeds, among others. In Burkina Faso, the products are purchased with state funds and distributed to the different regions of the country where they are managed by the regional livestock directorates, which pass them on to the beneficiaries at 20% of their cost.
57. One national fund per country, 15 in total, is planned for the region.
58. The key activities planned for the implementation of a model are:
    e. The establishment of an initial endowment fund of 10 billion per country
    f. The construction of 50 feed stores of 150 m2 per country
    g. Acquisition of mowing and straw transport equipment for a fixed price
    h. The establishment of 50 cooperatives (per country) for the bulk purchase of food and inputs.
    i. Training and capacity building of 50 management committees per country.
59. The implementation of the system makes it possible to secure the livestock during the lean season and avoid cyclical productivity losses estimated at 20% of the current production potential, i.e. an increase in regional local milk production of 1 billion litres per year.
60. The management of each store will Outcome in the creation of three (02) permanent jobs (1 accountant manager, 1 custodian and 1 supervisor), for a total of 2250 jobs.

Action 1.1.2 : Establishment of 15,000 entrepreneurial fodder production units

61. The model is based on the experience of Burkina Faso.
62. To promote and accompany the installation of fodder production enterprises, facilities are granted to promoters for the acquisition of production unit kits composed of planters, seeders, tractors, mowing trailers and balers, at a total cost of 30 million FCFA. Arrangements are also being made for the production of green fodder all year round. The promoters will benefit from capacity building in production techniques and fodder conservation for marketing. This innovative model allows permanent availability of fodder and opens up good prospects for the emergence of green jobs.
63. The surface area per production unit will be 20 ha developed, fenced and with an irrigation network on 15 ha. It is planned to have 1000 production units per country corresponding to 20 000 ha per country and 300 000 ha of fodder crops respectively for the region. With an average production of 25 tonnes of fodder dry matter (DM) (hay, silage) per ha per year, the total expected production is 7.5 million tonnes of fodder per year, enough to meet the fodder requirements of 3 million Tropical Livestock Units (TLU) at 6.25 kg DM/ TLU/d. Compared with the productivity of natural Sahelian pastures, which require 5 to 8 ha per TBU, this corresponds to 15 to 24 million ha, notwithstanding the quality of the fodder, which is much better for cultivated fodder.
64. This model will be put in synergy with the mechanism for sustaining and securing the supply of livestock inputs described above. Forward contracts will be encouraged to strengthen the viability of these economic initiatives.
65. The planned activities are:
    j. Facilitating access to land for fodder crops
    k. The acquisition of various equipment (exploitation, mowing, conditioning, conservation, carts, mowers, bundling machines, straw axes, trailers, etc.).
    l. The construction of sheds and warehouses for the storage of fodder and inputs
    m. Acquisition of inputs for fodder production
    n. Training of producers in fodder production and conservation techniques
    o. Training on financial management and accounting techniques

66. The implementation of these activities, in synergy with the other initiatives of the programme, will make it possible to increase livestock productivity by 10%, i.e. 500 million litres of milk per year on a regional scale.

67. In addition, 45,000 direct jobs are created, at a rate of 3 promoters per production unit.

Action 1.1.3: Setting of 15 models of community-based veterinary services

68. Animal health plays a fundamental role in the productivity of livestock farming in terms of quantity and quality. The proximity of veterinary services is a challenge that some countries have taken up by implementing veterinary service models that synergise public service with private veterinarians.

69. This model is part of the privatization of veterinary services, in order to bring these services closer to the requesting populations. The installation of private veterinarians is facilitated by the State at the level of the various departments or provinces. The latter provide a local service to herders and pastoralists in general and to dairy herds in particular. They benefit from the delegation of public services through vaccination campaigns, sero-surveillance and the training of para-veterinary auxiliaries.

70. The scaling up of the model relies, in particular, on financial mechanisms to support the installation of veterinarians, the efficiency of the delegation of public services, the strengthening of equipment and infrastructure for livestock vaccination, and the strengthening of public veterinary services. The scaling up of the model at the regional level will also be reinforced by the harmonization of national legislations and ECOWAS regulations promoting the movement of veterinarians within the regional space.

71. The planned activities are:
    p. Support for the installation of 1500 private veterinarians (subsidy, access to bank financing etc.)
    q. Logistical support to public veterinary services (equipment, logistical means)
    r. The construction of 750 vaccination parks and 15 quarantine centres.
    s. Support for national livestock vaccination programmes in accordance with OIE Recommendations (vaccine procurement)
    t. Support for epidemiological surveillance of livestock at the borders (construction of quarantine centres, etc.).

72. The expected impact of the implementation of this action is the significant improvement of the health status of livestock and zoo technical parameters, in particular, the reduction of mortalities, the increase in numerical productivity, etc. The project is expected to have a significant impact on the health status of the livestock and on the zoo technical parameters. The impact on milk production is estimated at 10% of the current potential, i.e. 500 million litres.

73. In addition, the establishment of 1 500 private veterinary practices will lead to the integration of at least 6 000 professionals in the sector, in particular 1 500 veterinary doctors and 3 000 technicians and other staff, at a rate of 4 direct jobs per practice.

Action 1.1.4: Establishment of 1500 agro-pastoral school fields

74. The Producer Field School Approach (PSF) successfully developed by FAO has been applied to the livestock sector in several West African countries.

75. This model allows theoretical and practical training of trainers on animal production in general and on the improvement of milk production in particular through different modules such as: improvement of livestock feed (treatment of straw with urea, manufacture of multi-nutritional blocks, vaccination campaign, etc.), animal health management, reproduction management, milk quality, processing and marketing of milk and its derivatives.

76. These trainings are then multiplied en masse at the level of the herders, more precisely in the pastoral units.

77. Scaling up this model has the double advantage of not only improving milk production but also creating jobs for young people, through the emergence of new jobs in the local milk value chain (facilitator, milk collector, artisanal milk processing, etc.).

78. For each country, 100 agro-pastoral school fields will be set up. Prior to this, the action will consist of training 50 approved trainers per country. These trainers will in turn train120 facilitators who will assist them in the

implementation of the agro-pastoral field schools for livestock farmers. The aim will be to achieve one hundred cohorts of 30 herders, i.e. a total of 3,000 herders, at least 30% of whom will be women.

79. The planned activities are:
    u. Support for the training of certified trainers (50 per country)
    v. Support for the training of CEP facilitators (120 per country)
    w. Establishment and animation of agro-pastoral school fields (45,000 breeders)
80. The Outcomes expected from the implementation of the agro-pastoral school fields are essentially the reinforcement of the professionalization of the actors, especially in the new trades brought about by the modernization of practices, such as fodder crops, intensive livestock farming, among others.
81. These are accompanying activities that are essential for the large-scale dissemination of technical and technological innovations.
82. The contribution to the increase in milk production is at least 5% of the current level, i.e. 250 million litres per year.
83. By strengthening the capacities of 45,000 trained producers, the model will enable at least 500,000 people to be reached through the snowball effect.

Outcome 1.2: Models for improving the dairy potential of local cows are scaled up

Action 1.2.1: Implementation of a regional initiative of 3.3 million artificial inseminations of local cows

84. Artificial insemination (crossing local females with imported exotic males) remains an effective technique to significantly increase the number of genetically improved animals at low cost and in a short time in West Africa. The choice of this model is linked to the ease of large-scale implementation, the relatively reasonable cost, but also to the convincing Outcomes obtained in some countries of the sub-region that have been able to deploy sufficient technical support measures.
85. In Senegal, for instance, a gestation rate of 41% was achieved with a single passage on an inseminated herd of 12,898 cows in the period 2013-2015.
86. Considering the experiences of the different countries in this field, the implementation of the insemination programme at the regional level should be carried out without too many difficulties. It will be based on a harmonized framework synergizing the orientations and interventions in each country.
87. Within this framework, the initiative already taken for the establishment of a harmonised regulatory framework (legal and technical) on the circulation and use of animal genetic material in the ECOWAS area will be finalised.
88. Furthermore, artificial insemination is part of a global strategy for the management of each country's zoo genetic resources, integrating the dimension of improving local breeds through selection. Precise crossing plans and schemes will be drawn up to specify the genotypes sought and limit the number of exotic dairy breeds introduced into the ECOWAS area.
89. In order to succeed, the programme will benefit from long-term support from public services, in particular through the control and monitoring of activities (search for support, setting up of databases).
90. The number of inseminations to be carried out for each country will depend on the number of livestock targeted and the experience of local actors in the field. However, an overall target of 3.3 million cattle is envisaged for 2030.
91. Animal semen, heat induction hormones and veterinary services will be subsidised, while de-worming and other operations will be paid for by the farmer. The objective, at the end of the programme, is to set up a perennial and local artificial insemination service offer integrating both exotic and local breeds.
92. The capitalization of the experience of each country will determine the adaptation of the model to the local context, taking into account the main specific constraints. However, the basic principles remain : (i) rigorous identification of the dairy basins that can benefit from the operation, (ii) choice of local and exotic breeds, (iii) training and equipment of technical staff, (iv) de-worming, stalling and proper feeding of the cows to be inseminated, (v) strict compliance with the insemination protocol by the various parties, (vi) implementation of accompanying measures such as training/awareness raising of beneficiaries on animal maintenance, constitution of fodder reserves, etc., (vii) implementation of the insemination protocol by the various parties, (viii) implementation of the insemination

protocol by the various parties, (ix) implementation of the insemination protocol by the various parties, (x) implementation of the insemination protocol by the various parties, (xi) implementation of the insemination protocol by the various parties.

93. For scaling up, 3.3 million space inseminations are planned, with a view to obtaining one million crossbred heifers by 2030. It is expected to have 2 births for 3 inseminations, i.e. 2.2 million births, half of which will be future dairy females. An overall mortality rate of 10% is expected.
94. Mass insemination will increase annual milk production by about 1.7 billion litres of milk (at a rate of 7 l/d and for only 80% of crossbred heifers);
95. The implementation of the operations will be entrusted to veterinarians working in private practice in each country, supported by a network of inseminators trained under the programme (it is planned to train and equip 5,000 inseminators during the project period), under the supervision of the State services.
96. The planned activities are:
    x. Definition of specifications for the beneficiaries and the insemination protocol
    y. Choice and contractualization with the inseminator teams
    z. Information and awareness of beneficiaries
    aa. Choice of breeds to be introduced in an inclusive approach with the beneficiaries
    bb. Training and equipment of inseminator teams
    cc. Identification and selection of cows to be inseminated according to the protocol
    dd. Identification of the subjects to be inseminated
    ee. Acquisition of insemination inputs (de-wormers, hormones, small materials and other veterinary products)
    ff. Implementation of 1st passage operations: de-worming and heat induction, insemination proper, pregnancy diagnosis, etc.
    gg. Implementation of the 2nd passage operations: de-worming and heat induction, insemination proper Campaign evaluation and reporting
97. The implementation of these large-scale artificial insemination operations conditions the installation of the 50,000 family-type mini dairy farms whose contribution to the reduction of the deficit amounts to **1.2 billion litres of milk**.
98. In addition, the implementation of the operations will create 5 000 direct jobs (inseminators) and 50 000 indirect jobs (inseminator assistants, herdsmen, transport, etc.) through contractual arrangements with private veterinarians and other players.
99. Meat production will be increased by 200 million tonnes, thanks to the slaughter of the males from cross-breeding, i.e. 1 million head, at a rate of 200 kg per head (slaughter at an average live weight of 350-400 kg).

Action 1.2.2: Establishment of 65000 family mini dairy farms

100. The model is based on the experience of Benin, where the introduction of exotic Girolando animals imported from Brazil and exploited as purebreds has produced mixed Outcomes. Milk production proved to be better than that of local breeds, i.e. 7 to 10 litres of milk per day in the breeding environment compared to 4 to 5 litres.
101. However, these animals proved to be very susceptible to disease, prompting the actors to change their option, choosing instead the Azawak breed of African origin, given the comparative advantages in favour of this breed.
102. The animals are imported from Niger, Burkina Faso or Mali, after the acclimatization period, they are placed in sedentary farms around the collection points of the mini-dairies. The females are transferred directly to the farms and the males are mated with females of local breeds to obtain products that will then be distributed in the farming environment.
103. A similar experience reported from Burkina Faso reveals that the introduction of Moorish cows has Outcomeed in crossbreeding of cross-bred cows with significantly improved performance, with an average production of 5 litres of milk per day throughout the lactation period.
104. The scaling up of these models has made it possible to envisage a model of a family- type mini-dairy farm, installed on the fringes of traditional extensive systems by pastoralists and agropastoralists in pastoral livestock areas.

105. This model has several variants, based on the semi-intensive rearing of local cows selected for their dairy potential, instead of exotic breeds unsuitable for traditional rearing conditions, even if these have been improved.

106. These are the Azawak, Zebu Maure, Goudalli, etc. breeds, which may be circulated within the West African region, depending on the demand of local breeders. To this end, accompanying measures are necessary, in particular, the implementation of selection programmes for each of the targeted breeds, for the dissemination of the best subjects.

107. In this first variant, 15,000 mini-farms will be set up, with 10 animals per mini-farm (9 cows and 1 bull), of which 10,000 will be in the countries of origin of the breeds bred and 5,000 in the host countries

108. In the host countries, 50,000 head are imported intra-regionally, of which 45,000 females and 5,000 males are purebred. In this case, the costs related to the purchase and movement of animals from one country to another will be subsidized by the programme to the tune of 500,000 CFA francs per head, the rest being borne by the beneficiary, i.e. a budget of **25 billion FCFA**.

109. The implementation of selection programmes in the countries of origin in the ECOWAS area will be supported by the priority investment programme through a project to strengthen the national structures involved in the process.

110. The second variant of mini-farms concerns cross-bred cows Outcoming from crossbreeding between local breeds and exotic dairy breeds from artificial insemination campaigns.

111. The number of animals concerned by this variant corresponds to half of the cows produced out of artificial insemination, i.e. 500,000 cows spread over 50,000 mini-farms.

112. In both cases, infrastructure consisting of stables, stores and fences will be built for the semi-permanent housing of the animals. The use of local materials will be favoured for reasons of durability, reproducibility and economy.

113. The planned activities are :

ii. Purchase and distribution of broodstock and females of improved breeds in an agro-pastoral environment

jj. Elaboration of genetic improvement plans

kk. Support for national or regional structures involved in the selection of local breeds and monitoring of animal performance (herd books, milk control)

ll. Support for the establishment of breed associations and the organisation of national and regional competitions on the quality and performance of the animals selected

114. The average milk production expected from the 15,000 mini farms based on local breeds is 5 litres per cow per day, for a lactation period of 240 days, i.e. 10,800 litres per mini farm and 162 million litres per year for the whole of West Africa.

115. In addition, the expected milk production of the 50,000 mini-farms based on crossbreeding is estimated at 8 litres per day per cow, for a lactation period of 270 days, i.e. 21,600 litres per mini-farm per year and 1,080 billion litres per year for the region.

116. Global production: 1.242 billion litres of milk.

117. Each mini-farm will be managed by three people, including a woman assigned to milk management and marketing, thus creating 195,000 direct jobs.

118. Additional meat production is carried out, with the exploitation of males (average carcass weight of 100 kg per head) and cull females (1/3 of the cows are renewed each year, average carcass weight of 150 kg per head), i.e. approximately 10,000 tonnes per year.

Outcome 1.3. Intensive dairy farm models are scaled up in West Africa

Action 1.3.1: Establishment of 15,000 entrepreneurial intensive dairy farms

119. The farm model experimented by the Agence Nationale d'Insertion et de Développement Agricole (ANIDA), in Senegal and in several West African countries, is an individual or collective farm aimed at young people or any other entrepreneur wishing to set up intensive milk production.

120. It is a fully fenced integrated farm, part of which is equipped for irrigation and has a dairy barn that can accommodate a dozen exotic cows, a store and a water point equipped with a solar pump (well or borehole).

121. Milk production is based on a fodder sole under irrigation. Diversification activities are market gardening, fruit growing and poultry farming.

122. Prior to the start of the programme, a platform bringing together beneficiaries and institutional actors (banks, credit unions, guarantee funds, agricultural insurance) is set up to facilitate financing. The recycling of organic waste is strongly encouraged through composting.

123. The average production is 12 litres of milk per day for a lactation period of 300 days during the first three lactations.

124. The main common epizootics are under control thanks to the implementation of a disease monitoring and prevention plan.

125. The scaling up of this model will take into account the removal of the main constraints identified, namely: (i) the inadequacy of fodder crop plots, especially those equipped with solar energy; (ii) the choice of the most appropriate fodder species for each farm; (iii) the low use of artificial insemination for better reproductive management; (iv) the marketing of processed products to increase the added value of milk; (v) the lack of partnership with research for support in the areas of production and animal health.

126. The resized model, more focused on milk production, will have an overall area of 5 ha and 2.5 ha allocated to forage crops. Rain-fed fodder crops are considered, where possible, to minimize irrigation costs.

127. In addition, the scaling up of the model will take into account the marketing of the milk produced by supporting the farmers' cooperative organization and linking them with milk collection centres and milk processing units.

128. This model will also be implemented in synergy with the exotic animal group purchase model (see below).

129. The financing plan provides for a subsidy on investments and the purchase of animals. The working capital and the beneficiaries' participation in investments are financed by a loan from local financial institutions.

130. The planned activities are :

mm. The organization of meetings to raise awareness and networking of stakeholders

nn. The purchase of exotic dairy animals

oo. Setting up infrastructure and equipping farms

pp. The organization of training sessions for the beneficiaries.

131. The expected milk production is 549 million litres of milk per year, based on an average daily production per cow of 12 litres and an average lactation period of 305 days, giving an annual production of 3660 litres per cow.

132. The number of jobs created is estimated at 60,000 direct jobs, at a rate of 4 per farm (02 for production and 02 for milking and milk marketing).

133. Furthermore, the induced effect on the increase in meat production is estimated at 2100 tonnes of meat per year from fattened males and cull females

134. The estimate is made on the basis of 7500 males and 5000 cull cows fattened before being sent to the slaughterhouse

135. For greater added value, the males (pure breeds) could be marketed as breeding stock to other farmers, thus contributing to the establishment of family-type mini dairy farms

Action 1.3.2: Support to dairy farm promoters for the group purchase of 500,000 exotic animals at regional level

136. To support the development of intensive and semi-intensive dairy farms, the Senegalese government had, as early as 2013, set up a mechanism for the group purchase of exotic animals paid for out of public funds and then returned to producers at a 60% subsidized price. Thus, three hundred and sixty-three (363) lowland heifers were imported and placed in a breeding environment at an average transfer price of 1.4 million CFA francs per animal.

137. Given the enthusiasm of the beneficiaries and for greater autonomy, from 2016, the producers have undertaken to take charge of the organisation of the operation through their association (ANIPL) by signing an agreement with the Ministry of Livestock. Within this framework, a subsidy is granted to producers who steer the acquisition process within the framework of a customer market, under the strict control of the Administration.

138. To this end, ANIPL launches a call for tenders for the acquisition of the animals, at the same time as requests for expressions of interest to potential beneficiaries.

139. At the time of ordering, the beneficiary pays an advance corresponding to 50% of the price and complete upon delivery of the products.

140. Thus, with the same amount of subsidy from previous years, the number of imported animals increased from 1077 in 2017 to 1181 in 2018, lowering the average cost of pregnant heifers from 1.4 million to 930,600 FCFA.

141. This model allows farms oriented towards intensification to enter the production phase very quickly, with a core of cows with high dairy potential, and to reduce the time it takes to defer the repayment of loans taken out.

142. On the basis of a subsidy of 1 million per head and a population of 500,000 imported animals, including 450,000 females and 50,000 males, the financing requirement is 500 billion.

143. The planned activities are :

qq. Implementation of the grant
rr. Identification and contractualisation of beneficiary breeders'associations
ss. Launch of requests for expressions of interest by the OPEs
tt. Launch of tender documents for a customer market
uu. Identification of beneficiary farmers
vv. Receipt to orders and advances from beneficiaries
ww. Reception and quarantine of animals
xx. Delivery of the animals to their owners

144. The expected milk production is **1.830 billion litres of milk per year**, based on an average daily production per cow of 12 litres and an average lactation period of 305 days, giving an annual production of 3660 litres per cow.

145. This production includes the quantity of milk produced by the intensive entrepreneurial farms described above (549,000 litres).

146. The number of potential jobs created is estimated at 70,000, taking into account one job for every five cows.

3.1.2 Component 2: Promotion and scaling up of local milk techno-economic model entities for collection, processing and marketing

147. This second component of the programme aims to develop the collection and processing of local milk by structuring and integrating the different links of the value chain around the dairy basins in each country. The expected Outcomes are as follows: (i) models of functional multi-service collection centres are scaled up in all the region's livestock basins, (ii) models of dairy processing units are scaled up in a dynamic of diversification, standardization and standardization of processed products, (iii) models for the development of local milk markets are promoted.

Outcome 2.1: Functional multi-service collection centre models are scaled up in all the region's livestock basins

148. Milk processing requires relatively large quantities of products that must be collected through a collection system and quality requirements that justify the setting up of specialised collection centres backed by networks of well-structured collection points.

Action 2.1.1 : Establishment of 5000 multi-services collection centres for local milk

149. These centres are organized around milk producers grouped in cooperatives who maintain suburban dairy nuclei, while the other herds go on transhumance. These centres are called multiservices because they perform different functions (i) organizing the collection of raw milk, (ii) quality control of the collected milk, (iii) cooling of raw milk, (iv) short-term storage (morning), (v) sale to milk manufacturers, (vi) possible processing of milk into yogurt, (vii) related services: advances on animal feed, advice to farmers, etc.

150. For collection, collection points are set up near producers where some can bring their milk even on foot. This milk from the morning milking (the evening milking is reserved for women) is transported to the collection centre by primary or secondary collectors. At the centre, the milk is checked, cooled to 4°C and stored for a short time while the large dairy comes to collect it with its refrigerated vehicles.

151. At the Uprolait multi-service collection centre in Hamdallaye (100 km east of Niamey in Niger) for example, the volume of milk collected increased by 500% from 2010 to 2016 (with about 300,000 litres in 2016) and the price per litre of milk rose from 300 F to 400 FCFA and a turnover of 109 Million FCFA in 2016 (compared to 81 Million FCFA in 2015).
152. The management of the centres is entrusted to management committees made up of individual producers or organised in cooperatives and responsible for finding outlets through contractualisation with the processing units.
153. The main constraints to be lifted are: (i) insufficient collection and packaging equipment, (ii) lack of control over the management of collection centres, (iii) lack of contractualization for some centres, (iv) seasonality of collection, which limits the quantity of milk processed over the year.
154. The model is developed in the different countries of the region, each with some local particularities, but the objectives remain the same, i.e. to collect the milk and make it available to the processing units.
155. Its scaling up presupposes the removal of the main constraints, in particular, adequate equipment of collection centres, capacity building of management committees, sizing of the size and number of centres per local authority and contractualization with producers on the one hand and dairy processing units on the other.
156. These centres are connected to a network of primary or secondary collection points with a lower capacity of between 500 and 1,000 litres per day. Each collection centre polarises an average of 5 collection points, i.e. 25,000 collection points.
157. The quantity of local milk collected by these multifunctional centres is estimated at 7.5 billion litres of milk per year for the region, i.e. an average of **5,000 litres per day** (for 300 days) per centre, for a real capacity of 1,000 litres.
158. Each centre, with its polarized collection points, will employ a total of 10 people, creating a total of 50,000 jobs.
159. The planned activities are :

yy. Construction of infrastructure (reception hall, storage room, sanitary facilities, office, etc.).
zz. The acquisition of equipment for collecting and storing fresh milk (cans, tanks, etc.)
aaa. The acquisition of rolling stock adapted to the areas (cart, bicycle, motorcycle, van, etc.)
bbb. The acquisition and distribution of consumables (packaging, milk testing products, fuel, etc.)
ccc. The creation and networking of collection points
ddd. Training of beneficiaries on good practices
eee. The purchase and retrocession of feedstuffs

Outcome 2.2: Dairy processing unit models are scaled up in a dynamic of diversification, standardization and standardization of processed products

Action 2.2.1: Setting up of 5000 mini dairies for the processing of local milk

160. It is a unit for processing local milk into Beninese Peulh cheese called Wagashi/Gasiré.Similar initiatives also exist in all other pastoral areas. The activities developed mainly target women and revolve around training on improved milk processing techniques, for a better valorisation of local milk
161. Livestock farmers also benefit from training in the production, conservation and storage of fodder, to improve productivity.
162. The implementation of this model makes it possible to add value to the milk produced locally by processing it into cheese, which is the only alternative in view of the difficulties of disposal linked to the isolation of the locality (lack of access roads). Each unit will process an average of 50 to 100 litres of milk per day, i.e. a total of 250 000 to 500 000 litres per day (**75 to 150 million litres per year)**.
163. Three people are responsible for the management and operation of each centre, and these will give room to the creation of 15,000 jobs.
164. The planned activities are :

a. Construction of mini dairies in compliance with standards (reception and storage of fresh milk, processing and packaging, storage of finished products, etc.).
b. Acquisition of suitable equipment for storage, processing, packaging and conservation (pasteurizers, containers, cooling tanks, refrigerators, soda bags, etc.).

c. Acquisition of inputs (packaging, closures, etc.)
Training of beneficiaries on good practices
d. Acquisition of transport equipment (motorcycle, van, etc.).

Action 2.2.2: Establishment of 1,500 SMI-SMEs processing local milk

165. The industrialization of the milk sector is carried out by the SMI-SMEs processing local milk. In all West African countries, initiatives have been developed in this field.

166. The model is based on (i) the establishment of the processing unit; (ii) the creation of a winning partnership between the unit and dairy farmers for the supply of milk. This partnership is based on fair prices and incentive services to farmers (access to inputs at favourable conditions); iii) the establishment of functional milk collection centres.

167. This model mechanism can be scaled up and combined with other initiatives developed elsewhere (group purchase of animals, milk collection network, etc.). It is expected that 100 SMI-SMEs will be involved in processing per country, i.e. 1,500 in total.

168. Each processing unit will process at least 2000 litres of milk per day. This corresponds to 3 million l/d and **1.09 billion litres per year**.

169. Investments will focus on supporting the installation of SMI-SMEs and the creation of 10 collection points per SMI-SME

170. Fifteen thousand collection points will be set up around the processing units, where investment will be mainly in equipment.

171. The jobs created include 02 technical operators, 01 administrative officer in charge of management and compatibility and 1 commercial agent, for each SME-SMI. In addition,2 agents are mobilised for each collection point, i.e. **9,000 jobs created**, not including delivery collectors.

172. The planned activities are

a. Incentives for the installation of SMI-SMEs (exemption of equipment, taxes, access to land, etc.);
b. The installation grant;
c. Facilitating access to appropriate credit
d. The training of dairy farmers in good practice in the field of standardisation and standardisation of dairy products, in particular:

- support the technical training of professionals in the sector;
- support for the restructuring and upgrading of small and medium- sized dairy enterprises;
- define and encourage the adoption by businesses of health standards for local dairy products.
- strengthen the technical capacities of operators in terms of product standardisation,
- to support the labelling of products made from local milk in accordance with selected Community standards,

Outcome 2.3: Models for the development of local milk markets are promoted

Action 2.3.1: Implementation of 150 innovation platforms of the actors of the dairy sector

173. Created in 2014, this platform is a space for learning, exchanges, promotion of innovations and synergy of actions for the development of local milk value chains. It brings together APESS, the Dagana Dairy Cooperative, the Laiterie du Berger (LDB), food and input vendors, dairy equipment distributors and all value chain actors present in the area

174. The platform's advocacy and capacity building activities have enabled it to mobilize800 farmers around it with an emerging organizational dynamic symbolized by APESS; this dynamic has made it possible to make 500 tons of animal feed and 600 tons of fodder available to farmers, collect 1 million litres of milk from member farmers, make1.2 billion cumulative purchases from farmers and create more than 1,000 jobs in its zone.

175. With a better structuring of the members, the abolition of VAT on pasteurized milk (which allowed Laiterie du Berger to increase the price of milk to the producer), the adoption of emerging technologies by producers (fodder crops...) and the good dynamics of exchanges between actors and the spirit of partnership developed so that everyone can

benefit, the scaling up of this type of model is a good tool to not only boost milk production but also to create millions of jobs for young people.

176. The scaling up of this model within the framework of the Offensive Milk program revolves around the reinforcement of the organizational dynamics of the actors at the different levels of the value chain

177. The aim will be to encourage the establishment of consultation frameworks and to support them in the first years of operation through logistical support, the organisation of meetings, training and networking of stakeholders

178. These platforms will be identified according to the dairy basin network in each ECOWAS country.

179. An average of 10 platforms per country will be created over the duration of the programme.

180. As the platform is a device for facilitating and optimizing the local milk value chain in all its links, the expected impact is the improvement of production by 5% of the potential (500 million litres) and a reduction in losses of around 50% (from 10 to 5% of overall production: 250 million litres), or a total volume of **1.500 billion litres**.

181. The planned activities are :

    a. Support for the establishment of frame works for stakeholder consultation around local milk processing SMI-SMEs (breeders, OPEs, collection points and centres, mini-dairies, SMIs, SMEs, industrialists, distributors of inputs and finished products, etc.).
    b. Material and logistical support to OPEs
    c. Organization of meetings between actors
    d. Training and reinforcement of the technical and organizational capacities of the actors.

Action 2.3.2: Implementation of 15 models for networking the national territory into dairy basins and structuring around dairy industries

182. The dairy basin structuring model for the whole Nigerian territory is based on 4 links: (i) the "dairy pole" at the village community level, (ii) the "dairy cooperative" made up of several «dairy poles", (iii) the collection centre which groups together several "cooperatives" and (iv) the dairy industry which polarizes several collection centres.

183. The "Pôle laitier", as the village section of the dairy cooperative, has the task of pooling (i) the supply of production factors to livestock units, (ii) access of livestock units to public services (extension, research, others), (iii) access to credit, insurance and other financial services, (iv) access of livestock units to private services (veterinarians, others), (v) collection and delivery of milk to the dairy cooperative and any other services required by the livestock units.

184. The Dairy Cooperative offers mutual services to the dairy clusters (access to credit, insurance and other financial services, supply of production factors, technology transfer, technical advice, management services, etc.).) and ensures collection, marketing and payment to the livestock units.

185. The Collection Centre, with a capacity of between 5,000 and 10,000 litres, centralises milk from collection points and livestock units for storage, marketing or delivery to the dairy industry.

186. The Dairy Industries, the driving force behind the system, buy milk from the collection centres, process it and go on to conquer national, regional and even international markets.

187. This model can present variants, depending on the productive capacity of the dairy basin, there could be, in particular, basins with mini, small and medium dairies or large dairy industries

188. The scaling up of the model will be based on synergy with all other programme activities in each country.

189. The conditions for success include the establishment of pastoral reserves, facilitation of access to water, pasture, animal feed and veterinary services, livestock equipment and inputs, promotion of fodder crops and their conservation, establishment of dedicated credit lines and support mechanisms for private investment, and fiscal measures conducive to the development of the dairy industry.

190. A national network model will be developed for each country in the ECOWAS region based on the existing system and the programme implementation forecasts.

191. Its design will require broad consultations involving all the players in the value chain for the establishment of partnership projects between players and innovation platforms.

192. This scheme to improve the local milk value chain in all its links will enable an additional production of 10% of the potential, i.e. a total volume of **1 billion litres**.

193. The planned activities are :
    a. The establishment of frame works for consultation between actors through a wareness rising and information.
    b. The organization of meetings between actors, to facilitate:
        i. T h e supply of production factors to livestock units
        ii. Access of livestock units to public services (extension, research, other)
        iii. Access to credit, insurance and other financial services
        iv. Access of livestock units to private services (veterinarians, others)
        v. The collection and delivery of milk to the dairy cooperative and any other services required by the livestock units

3.1.3 Component 3: Promotion of an environment conducive to the development of the local milk sector

194. This third component of the programme essentially concerns the public efforts needed to improve the business environment in the sector. It focuses more specifically on the investments to be made and the policy measures to be taken by Member States and the ECOWAS Commission to (i) increase the development potential of the local dairy sector, (ii) promote private investment, (iii) strengthen female entrepreneurship, (iv) facilitate the integration and/or retention of young people in the local dairy economy, and (v) develop local milk markets at both national and regional levels.

Outcome 3.1: Public investment models improving the development potential of the local dairy sector are scaled up.

Action 3.1.1: Establishment of 200 pastoral units to secure traditional extensive live

195. The sustainable management of pastoral resources is the main challenge for securing pastoral and agro-pastoral systems in the Sahel in general and for milk promotion in particular.

196. The Pastoral Unit is a geographical space centred on drilling where people living in the same land, in solidarity, with the same socio-economic interests, exploiting the same resources and using the same water points (ponds, boreholes, etc.) live.

197. It is a steering and facilitation instrument made available to communities for participatory and inclusive resource management and is a tool for the local community and its partners.

198. The development of this model would make it possible to sustainably promote milk production in pastoral and agro-pastoral areas in terms of facilitating access to water and grazing.

199. Moreover, this model offers the conditions for better monitoring and optimal management of transhumance in general and cross-border transhumance in particular.

200. ECOWAS countries should draw inspiration from it to further secure and improve the productivity of livestock in pastoral areas.

201. It is envisaged to set up 200 pastoral units (PU), i.e. an average of 10 to 13 pastoral units per country for a total cost of 40 billion (200 million per PU).

202. The organization into Pastoral Units of the predominantly pastoral areas allows the creation of the necessary synergies to significantly increase production and overall livestock productivity through the improvement of the various zoo technical parameters (fertility, fecundity, mortality, exploitation rate, etc.).

203. In the area of milk production, the expected impact is to double the volume of milk produced per cow from 2 to 3 litres per day. On the basis of an average cattle population of 100,000 head per UP and a percentage of cows in production of 40%, the increase in milk production is 7,200,000 litres per year per UP, i.e. a total of 1.440 billion litres for the region.

204. Beyond this, UPs help to create an organizational dynamic leading to sustainable management of natural resources and improving the resilience of pastoral people to malnutrition and poverty.

205. Activities :
    a. Support for the construction of boreholes and pastoral wells

b. Support for the development of ponds and rainwater collection and retention basins

c. Support for the establishment of water supply networks in corridors of passage and transhumance.

Action 3.1.2: Support for the establishment of 15 livestock insurance systems for better security of dairy farming

206. Livestock insurance is a risk management tool that, combined with other coping mechanisms, allows livestock producers to get back to business faster in the event of a loss.

207. It can be adapted to all farming systems, but requires effective communication to ensure that it is well perceived and appropriated by farmers who are convinced of its benefits.

208. In Senegal, the Compagnie Nationale d'Assurance Agricole du Sénégal (CNAAS) is an example of a structure that can be used to develop a model adapted to each country.

209. We will work essentially to identify the needs and motivations of farmers for insurance in order to offer them relevant products.

210. The need for funding is mainly justified for the organization of awareness workshops, exchanges of experience, studies and diagnostics for the development of insurance models and support for producers through the establishment of a disaster fund.

211. The generalization of livestock insurance makes it possible to further secure the investments made by the actors for the creation of modern farms and to preserve traditional breeding against the risks linked to the various hazards. Its impact is estimated at 2.5% of production, i.e. 750 million litres of milk.

212. In addition, the development of a local livestock insurance service will lead to the emergence of new jobs in the sector, which can be estimated at 15,000 jobs, beyond the stimulating effect on private investment.

213. The planned activities are :

a. Raising awareness of stakeholders on agricultural insurance
b. Design and development of livestock insurance models adapted to dairy production
c. Establishment of a calamity fund.

Outcome 3.2: Public policy measures favourable to the development of private entrepreneurship in the local milk sector are promoted.

Action 3.2.1: Scaling up of experiments to reduce taxation on local milk to improve the competitiveness of local products

214. This model is well indicated to reduce imports of milk and dairy products by increasing the production and processing of local milk through the State's incentive for industrialists to integrate local milk into their production. However, this requires significant investments in collection and processing (setting up collection centres, logistics for transporting milk, adaptation of processing equipment, etc.) that industrialists are reluctant to make because of the lack of security for these investments.

215. In Senegal in 2017, an ad hoc committee made up of the Ministries in charge of Livestock and Finance and the OPEs was set up in order to work to reduce the tax burden on the sector. Thus in 2018, the committee obtained the abolition of VAT on pasteurized milk, which allowed the LDB to increase the price of milk to the producer by 42%, from 232 F CFA to 400 F CFA.

216. The adoption of such a model by ECOWAS Member States will create favourable conditions for the promotion of local milk.

217. The activities to be carried out consist of raising awareness among States on the need to abolish VAT and any other tax that may hinder investment in the local milk value chain.

Action 3.2.3: Taking measures to strengthen the regional milk market (CET, EPA, etc.)

218. Measures eliminating all potential obstacles to the cross-border movement of local raw milk and dairy products are expected from ECOWAS.

219. Finalisation of the process of establishing a harmonised legal, technical and regulatory framework on the circulation and use of genetic material in the Community area.

220. Similarly, a global strategy for the management of the zoo genetic resources of each country, integrating the dimension of improving local breeds through selection, should be defined at regional level, in order to specify the genotypes sought and limit the number of exotic dairy breeds introduced.

221. Activities planned are :

a. Measures to reduce production costs (primary and processed): input prices; Incentives for collection and processing (equipment subsidies, etc.).
b. Facilitating the increase of milk processors and industrialization (the case of Nigeria);
c. Strengthenresearchonanimalfeedfordairyfarmingandgeneticimprovement
d. Developing infrastructure to facilitate the transport of milk to collection and processing centres
e. Harmonize sub-national and international legislation to secure livestock movements.
f. Fiscal and trade measures to improve the competitiveness of local milk
g. Increasing the price of imported products through trade policies
h. The increase in VAT on milk powder alone (in some countries)
i. Targeted reduction in the VAT rate allowing a reduction in the price of national products or specific products.
j. Taxation ofalldairyproductsinordertofinancethedevelopmentofthelocal milk sector.
k. Revision of packaging regulations to improve consumer in formation
l. Creation and promotion of a public "local milk" label at State or ECOWAS level to facilitate consumer choice.

3.1.4 *Component 4: Programme implementation steering, coordination*

222. This fourth and final component of the programme deals with the establishment of a governance and programme implementation mechanism. It involves the establishment of bodies for guidance, supervision, implementation, assistance in consultation and the provision of relevant information to decision-making centres. The component thus deploys monitoring, evaluation, capitalization and joint review operations to improve the development performance of the local dairy sector.

223. The process is led by the Directorate of Agriculture and Rural Development (DADR) of the Department of Agriculture, Environment and Water Resources (DAERE) of the ECOWAS Commission.

224. It is facilitated by the Rural Hub as part of a participatory and inclusive approach directly involving States, networks of PROs and TFPs that contribute to the regional strategy for the implementation of the Local Milk Offensive in West Africa.

225. As a reminder, the programme aims at amplifying, intensifying and accelerating initiatives for the promotion of local milk value chains in West Africa (Local Milk Offensive), by supporting the RPOs and Member States, in a participatory and inclusive approach that mobilizes all stakeholders.

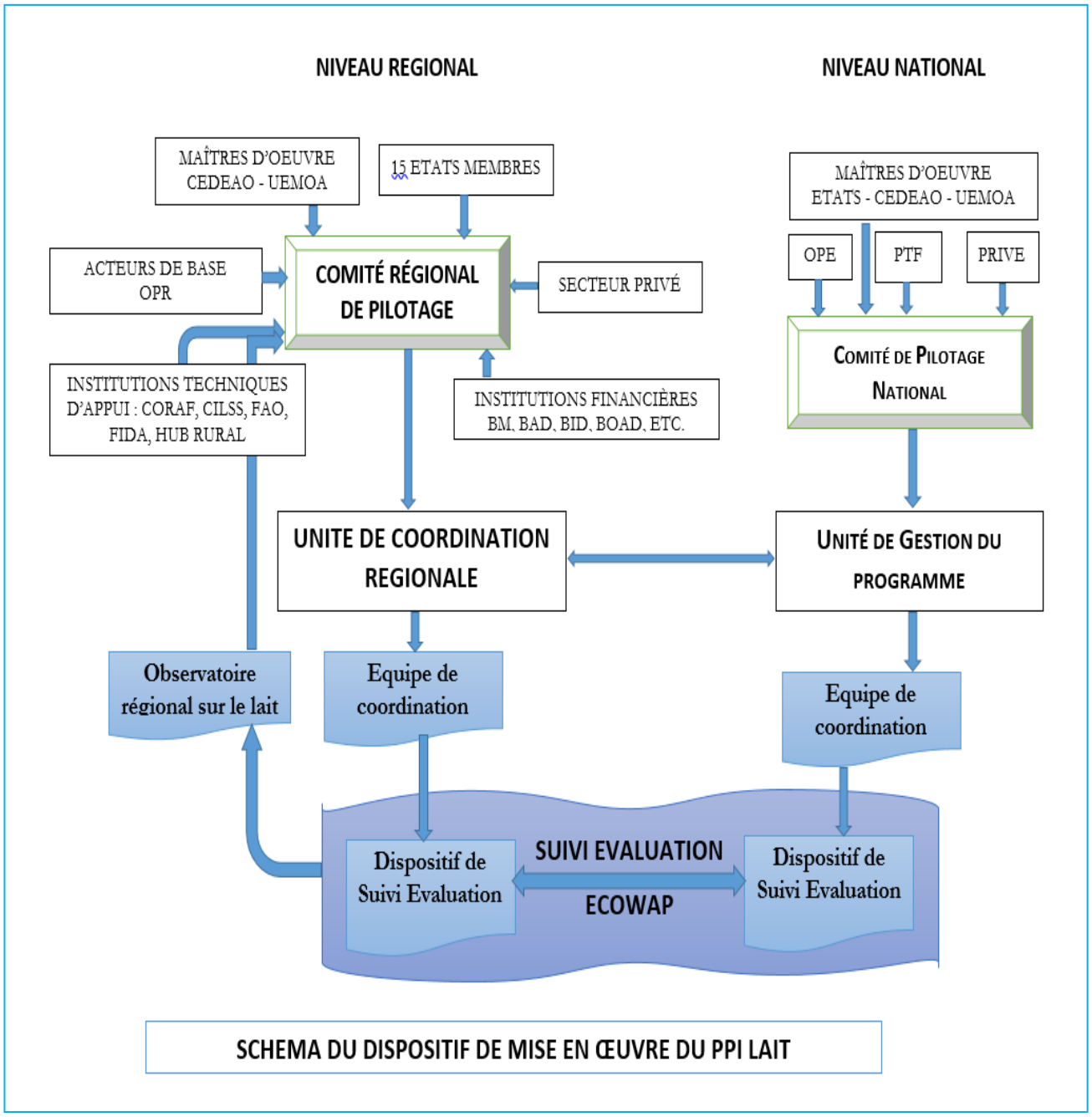
226. To give this dynamic the expected effectiveness and efficiency, the component is structured around a single expected Outcome, namely the establishment of a steering, coordination and management mechanism for the programme.

Outcome 4.1: The programme steering, coordination and management system is in place.

227. The mechanism is based on the following actions: (i) setting up a programme coordination team, (ii) setting up a multi-stakeholder steering committee, (iii) setting up a monitoring and evaluation mechanism, (iv) setting up a regional observatory on milk.

228. The planned activities are : (i) the acquisition of headquarters(s) and logistical means, (ii) the recruitment and installation of the programme team, (iii) the upgrading of team members, (iv) the launching of programme activities, (v) the identification of the members of the steering committee and the observatory, (vi) drawing up the mission statement and the texts regulating the functioning of the Committee, (vii) setting up the Bureau of the Committee, (viii) drawing up a reference situation for the programme and (ix) drawing up programme monitoring and evaluation tools.

229. The performance of the programme is constantly monitored and improved thanks to a Regional Milk Observatory which at the same time manages a platform for exchange and information on the dairy sectors. This Observatory is also a facilitation framework whose mission is to identify and sign agreements with third party partners.



SCHEMA DU DISPOSITIF DE MISE EN ŒUVRE DU PPI LAIT

Action 4.1.1: Setting up a multi-stakeholder steering committee

230. Steering will be done at regional and country level. The steering bodies will comprise:

- At the regional level:

231. A Steering Committee co-chaired by the ECOWAS and UEMOA Commissions will be set up and will bring together national institutions and partner PROs. It is responsible for supervising and guiding the activities of the Regional Coordination Unit.

232. The mission of the Regional Coordination Unit is to implement the orientations defined by the Steering Committee and to monitor the execution of the programme by the Programme Management Units at national level.

- At the country level:

233. Each country has a Programme Management Unit which is responsible for the operationalization of activities, in close collaboration with national institutions and PEOs.

234. The relations between the different entities will be the subject of specific texts.

235. The planned activities are :

a. Identification of the members of the steering committee
b. The drafting of the mission statement and the texts regulating the operation of the steering committees.

Action 4.1.2: Establishment of a programme coordination team

236. A light coordination team will be set up in each country under the responsibility of the ministry in charge of livestock and animal resources. This team will ensure the general coordination of the programme as well as the supervision of the monitoring-evaluation unit.

237. The planned activities are :

a. The acquisition of headquarters and logistical means,
Recruitment and installation of the program team,
b. Setting up the monitoring and evaluation unit
Upgrading of team members
c. The launch of the programme's activities.

Action 4.1.3: Establishment of a Regional Milk Observatory

238. Monitoring and evaluation tools for the programme will be developed under the authority of the Regional Coordination Unit, which will have them validated by the Steering Committee

239. These tools will have to be regularly monitored by a regional milk observatory responsible for analysing the performance of the programme on the basis of precise indicators defined in advance in the light of the objectives set out in the strategy

240. The organisation and operation of the regional observatory on milk will be defined by the Steering Committee after its installation.

3.2 Methods of implementing the programme

3.2.1 Approach and implementation principles

241. The approach adopted is an operationalization of the strategy, which is intended to be an appropriate framework to support projects carried out by the various categories of actors in the local milk value chain, particularly the socio-professional organizations of farmers and pastoralists, the States, the local private sector and foreign investors.

242. This will involve the implementation of investment plans supported by ECOWAS and the States, through measures to improve the business environment, to enable the private sector to make productive investments in the various links of the local milk value chains.

243. This presupposes solid win-win partnership agreements between the private sector and local actors whose technical, organizational, institutional and managerial capacities will be strengthened, in order to lay the foundations for a profound transformation of the West African dairy sectors.

244. The guiding principles underlying these activities are those of regional integration policies centred on the following values: subsidiarity, proportionality, solidarity, inclusion and progressiveness.

245. We place particular emphasis on progressiveness, which implies a gradual approach to implementation, taking into account national situations, including what exists and the priorities identified, as well as the interest shown by the main groups of actors involved.

246. However, in general, top priority should be given to public policy measures that favour the development of private entrepreneurship in the local milk sector: (i) tax relief for companies using local milk, (ii) adoption of a gate tax and appropriate trade defence measures to improve the competitiveness of local products on the regional market.

247. The chronology of implementation of the proposed models should also, at the level of each country, respect the principle of progressiveness, in particular by ensuring the articulation and coherence of investments at the level of the different links of the value chain (production, collection, processing, and marketing).

3.2.2. Stakeholders

248. The stake holders directly involved in the implementation, monitoring and evaluation of programme performance fall in to four categories of actors.

249. The Regional Economic Communities (ECOWAS and WAEMU), as project managers, are responsible for policy steering, including the definition of general orientations, formulation and validation of regulatory texts (protocols, directives, etc.) and activities.

250. The fifteen Member States of the Community, which have specific laws and rules, promote an environment favourable to the development of local milk value chains. They are home to actions that are developed by other stakeholders.

251. The actors, grouped around socio-professional organizations of regional scope (RBM, ROPPA, APESS, AFAO, FEWACI, CORET, COFENABEVI, AFEEX) which ensure the direct implementation of activities, in perfect synergy with the local private sector and multinationals operating in the milk value chain.

252. Technical support institutions (CORAF, CILSS, FAO, IFAD, HUB RURAL) and regional and international financial institutions interested in the livestock sub-sector in general and the development of local milk value chains in particular (WB, ADB, EBID, BOAD)

4. Cost and Programme Financing

4.1 Budget lines Description and cost of the programme

a. Establishment of 15 national revolving funds and mechanisms to ensure the sustainability and security of supply of livestock inputs

253. The budget provides for the activities described above, in particular:

- The establishment of 15 initial endowment funds of 10 billion per country, for a total amount of 150 billion for the region.
- The construction of 750 animal feed stores (15x10 m = 150 m2), at a rate of 100,000 F CFA per M2, i.e. a total cost of 11 billion 250 million.
- The acquisition of production and transport equipment for a fixed price of 15 billion per country, i.e. 225 billion.
- The establishment of 750 foods and input cooperatives affiliated to each store, for a total of 20 million per store, or 15 billion in total.
- Training and capacity building of cooperative management committees, amounting to 10 million per store, or 7.5 billion for the region.

The total amount of the share is **408.750 billion**.

b. Establishment of 15,000 entrepreneurial-type forage production units:

254. The budgeting lines are:

- Facilitation of access to land for fodder crops, through sensitization of local authorities and intermediation with project holders, by organizing 10 meetings per country at a cost of 10 million per meeting, i.e. CFAF 1.5 billion.
- The acquisition of various equipment, fodder production inputs and infrastructure subsidized up to 50% by the program.
- The amounts of these subsidies are estimated, per fodder production unit, at 10 million for equipment (production, exploitation, mowing, packaging, conservation, transport, etc.), 5 million for buildings and 500,000 F per developed hectare. Also, a lump sum of 2.5 million is granted for the acquisition of inputs (seeds, fertilizers, etc.) to each farm.
- In addition, 1,500 training sessions are planned for producers on fodder production and conservation techniques and 500 sessions on financial and accounting management for the benefit of stakeholders. The average cost of these training sessions is 5 million per session.

The total amount of the investment amounts to **424 billion FCFA**

c. Setting 15 models of community-based veterinary services

255. It is plannedtosetup1, 500 private veterinary practices or clinics, i.e.100percountry, at a rate of 10 million per beneficiary, as a start-up grant; on the understanding th at additional financing will be provided via a bank loan facilitated by the State. The total amount **will be 15 billion**.

- The construction of 750 vaccination parks (50 per country) will be carried out to accompany the zoo health protection activities, at a rate of 15 million per unit, i.e. 11.250 billion for the region.
- To facilitate the achievement of the livestock vaccination standards set by the World Organisation for Animal Health (OIE), the programme will provide global support to national annual vaccination programmes amounting to15 billion for all the States in the region, i.e. 1 billion per country.
- Support for public veterinary services is a necessity in all the countries of the region, for the proper exercise of regalian missions, given the current state of development of these services. This support is estimated at FCFA 18 billion, at a rate of FCFA 1.2 billion per country.
- Also, to support epidemiological surveillance at the border level, 15 quarantine centres will be built at the most sensitive borders, at an individual cost of 200 million per unit, or 3 billion.

The total amount of the action is **62.250 billion FCFA.**

d. Installation of 1500 agropastoral Field schools

256. In order to carry out 1,500 agro-pastoral school fields, 50 approved trainers per country will be trained, with 4 sessions per trainer and 25 candidates per cohort, i.e. 8 sessions per country and 120 sessions in total. The average cost of a session is estimated at 15 million, i.e. 1.8 billion for the region.

It will also train 120 facilitators per country, with each facilitator having to undergo two training sessions. These training sessions will be conducted in cohorts of 20, i.e. 12 sessions per country, at a rate of 5 million per session. The amount will be 900 million.

The implementation of the 1,500 agro-pastoral school fields will be carried out by cohorts of 30 people and will involve 45,000 beneficiaries. The cost of each session is estimated at 5 million, or FCFA 7.5 billion for the region.

The total amount is estimated at **10.200 billion FCFA**.

e. Implementation of a regional initiative of 3.3 million artificial inseminations of local cows.

257. The implementation of the operation begins with information and awareness-raising for the beneficiaries, with the organization of 10 sessions per country at an estimated cost of 10 million per session, i.e. a budget of 1.5 billion for the region.

- The training of the teams of inseminators will concern 5000 agents who will be able to train a cohort of 25 people for an average cost of 15 million per training session, i.e. 3 billion FCFA
- The selection and identification of candidate cows for insemination will be carried out by the technical services of the States which will benefit from fuel support, i.e. 50,000 litres per country at an average price of 700 FCFA per litre. The overall amount for the region is FCFA 525 million.
- The 5,000 trained inseminators will each receive an insemination kit at an estimated cost of 2 million each, or 10 billion CFA francs.

- Insemination inputs, composed of hormones and other veterinary products, are estimated at 10,000 FCFA per insemination dose, i.e. 33 billion FCFA.
- The implementation of operations by service providers costs on average FCFA 50,000 per act of insemination. It is subsidized up to 50% and will cost the beneficiary 25,000 FCFA. The total amount covered by the programme is **82.5 billion FCFA.**

The total amount of operations amounts to **130.525 FCFA billion** for the region.

f. Support to dairy farm promoters for the group purchase of 500,000 exotic animals at regional level

258. The lines of the budget are:

- The purchase and transport of animals on the basis of a subsidy of 1 million per head and a workforce of 500,000 imported animals, 150,000 of which are already included in the budget for intensive farms of the entrepreneurial type, i.e. 350,000 head and 350 billion.
- The organization of information and awareness-raising meetings for beneficiaries, at a rate of 10 per country and at a cost of 10 million per meeting, i.e., 1.5 billion.
- Capacity building of actors for a lump sum of 100 million per country, i.e. 1.5 billion.

The overall budget for the region is **FCFA 355 billion.**

g. Establishment of 15,000 multiservice collection centres for local milk

259. The budgeted activities are :

- The organization of 10 awareness-raising and networking meetings for actors per country, at a cost of 10 million per session, or 1.5 billion for the region.
- Subsidizing the purchase of 150,000 exotic animals to the tune of 1 million per head, i.e. 150 billion FCFA.
- Subsidies for infrastructure and equipment for an amount of 10 million per farm, i.e. FCFA 150 billion.
- Training courses targeting 45,000 beneficiaries, organized by cohort of 50 people (9,000 sessions) and at a rate of 5 million per session, i.e. 4.5 billion FCFA.

The total amount of this heading is **306 billion FCFA**

h. Support to dairy farm promoters for the group purchase of 500,000 exotic animals at regional level

260. The lines of the budget are:

- The purchase and transport of animals on the basis of a subsidy of 1 million per head and a workforce of 500,000 imported animals, 150,000 of which are already included in the budget for intensive farms of the entrepreneurial type, i.e. 350,000 head and 350 billion.
- The organization of information and awareness-raising meetings for beneficiaries, at a rate of 10 per country and at a cost of 10 million per meeting, i.e., 1.5 billion.
- Capacity building of actors for a lump sum of 100 million per country, i.e. 1.5 billion.

The overall budget for the region is **FCFA 353 billion.**

i. Establishment of 5,000 multiservice collection centres for local milk

261. The structure of the required funding is as follows:

- Construction of infrastructure (reception hall, storage room, sanitary facilities, office, etc.) subsidized up to 50% for an amount of 5 million per collection centre, i.e. 25 billion FCFA.
- Acquisition of equipment for collecting and storing fresh milk (cans, tanks, etc.) subsidized up to 50% for an amount of 5 million per collection centre, i.e. F CFA 25 billion.
- Acquisition of rolling stock adapted to the zones (cart, bicycle, motorcycle, van, etc.) subsidized up to 50% for an amount of 2 million per collection centre, i.e. FCFA 10 billion.
- Acquisition of consumables (packaging, milk testing products, etc.) subsidized up to 50% for an amount of 1 million per collection centre, i.e. FCFA 5 billion.
- Training of beneficiaries on good practices at the rate of one session per collection centre and 2 million per session, i.e. 10 billion.

The total amount is **75 billion FCFA.**

j. Setting up of 5000 mini dairies processing local milk

262. The budget is as follows:

- Construction of infrastructures, for a subsidy of 2.5 million granted to each mini-dairy, i.e. 12.5 billion FCFA.
- Acquisition of equipment, for a subsidy of 2.5 million granted to each mini-dairy, i.e. FCFA 12.5 billion.
- Acquisition of inputs (packaging, ferments, etc.), for a subsidy of 200,000 FCFA granted to each mini dairy, i.e. 1 billion FCFA.
- Training of beneficiaries on good practices, for an amount of 1 million per mini dairy, i.e. FCFA 5 billion.
- Acquisition of transport equipment (motorcycle, van, etc.), with a subsidy of 2 million per mini dairy, i.e. 10 billion FCFA.

That is a total of **41 billion FCFA.**

k. Establishment of 1,500 SMI-SMEs processing local milk

263. The budget for the promotion of SMI-SMEs in the processing sector is divided into the following headings:

- The subsidy for the installation of the 1500 SMI-SMEs for a lump sum of 10 million per structure, i.e. 15 billion.
- Subsidy for the creation of 15,000 collection points, at a rate of 5 million per collection point, i.e. FCFA 75 billion.
- The training of milk producers revolving around SMI-SMEs on good practices, up to 2 million per polarized SMI-SME, i.e. FCFA 3 billion.

The total amount of the intervention is **93 billion FCFA.**

l. Implementation of 150 innovation platforms for players in the dairy sector

264. The budget items for the creation of innovation platforms are :

- Support for the establishment of frameworks for stakeholder consultation, through 5 meetings for each platform, at a rate of 5 million per meeting, i.e. 3.750 billion.
- Material and logistic support to the Professional Breeders' Organizations, for the functionality of the offices, for an amount of 5 million per platform, i.e. 750 million FCFA.
- The organization of 60 meetings between actors, for each platform, at a rate of 2 million per meeting, i.e. 1.2 billion FCFA.
- Training and capacity building of actors, through 5 sessions per platform for a cost of 5 million per session, i.e. FCFA 3.75 billion.

This represents a total cost of FCFA 9.450 billion for the region

m. Setting up of 15 models for networking the national territory into dairy basins and structuring around dairy industries.

265. The budgeted activities are essentially:

- The establishment of frameworks for consultation between actors through awareness raising and information. A total of 10 frameworks will be created per country around the dairy basins and five meetings will be organized at the level of each of them, for an average cost per meeting of 20 million, i.e. 15 billion FCFA.
- The organization of 60 meetings between actors, for a unit cost of 40 million per meeting, i.e. 36 billion FCFA.

That is to say a global budget of **51 billion FCFA.**

n. Establishment of 200 pastoral units to secure traditional extensive livestock rearing systems

266. The expected funding is for:

- The construction of hydraulic works and other pastoral infrastructures (boreholes, pastoral wells, adductions, multi-purpose halls, storage warehouses, etc.). 150 million per pastoral unit, i.e.
- Studies and diagnostics to be carried out for the reference situation at a rate of30 million per Pastoral Unit, i.e. 6 billion FCFA.
- The establishment and strengthening of the management committees of each UP, for an amount of 25 million, i.e. 5 billion FCFA.

The total amount of the investment is **41 billion FCFA**

o. Support for the setting up of 15 livestock insurance systems for better security in dairy farming

267. The promotion of livestock insurance in the 15 States of the region requires the financing of the following activities:

- Awareness-raising of actors through the organization of 10 meetings at the level of each country, for an average budget of 15 million per meeting, i.e. FCFA 2.25 billion.

- Carrying out studies and consultations for the design of a livestock insurance model adapted to milk production in each State, for an amount of 50 million per study and per country, i.e. 750 million FCFA.
- The establishment of a calamity fund intended to strengthen the mechanism within the framework of a public-private partnership, for a lump sum of 500 million per country, i.e. FCFA 7.5 billion.

That is to say a global budget of **10.500 billion FCFA.**

4.2 Budget Summary

Table 6.1– Budget by techno-economic model, activity and year

Models/ Activities	YEAR 1 (Thousands of CFA francs)	YEAR 2 (Thousands of CFA francs)	YEAR 3 (Thousands of CFA francs)	YEAR 4 (Thousands of CFA francs)	YEAR 5 (Thousands of CFA francs)	YEAR 6 (Thousands of CFA francs)	YEAR 7 (Thousands of CFA francs)	YEAR 8 (Thousands of CFA francs)	YEAR 9 (Thousands of CFA francs)	YEAR 10 (Thousands of CFA francs)	TOTAL BUDGET (Thousands of CFA francs)
COMPONENT 1: Promotion and scaling up of techno-economic entity models for improving the Productivity of livestock systems	**238 062 619**	**238 062 619**	**238 062 619**	**233 729 286**	**233 729 286**	**183 689 286**	**183 689 286**	**166 900 000**	**166 900 000**	**166 900 000**	**2 049 725 000**
Establishment of 15 national revolving funds and mechanisms to ensure the sustainability and security of supply of livestock inputs.											
Establishment of an initial endowment fund	30000000	30000000	30000000	30000000	30000000	0	0	0	0	0	150000000
Construction of livestock feed stores	2250000	2250000	2250000	2250000	2250000	0	0	0	0	0	11250000
Acquisition of mowing and straw transport equipment	22500000	22500000	22500000	22500000	22500000	22500000	22500000	22500000	22500000	22500000	225000000
Establishment of food and input cooperatives	3000000	3000000	3000000	3000000	3000000	0	0	0	0	0	15000000
Training and capacity building of management committees.	1500000	1500000	1500000	1500000	1500000	0	0	0	0	0	7500000
Subtotal	***59 250 000***	***59 250 000***	***59 250 000***	***59 250 000***	***59 250 000***	***22 500 000***	***22 500 000***	***22 500 000***	***22 500 000***	***22 500 000***	***408 750 000***
Establishment of 15,000 entrepreneurial forage production units											
Facilitation of access to land for fodder crops (sensitization of local authorities and intermediation with promoters)	300000	300000	300000	300000	300000	0	0	0	0	0	1500000

Models/ Activities	YEAR 1 (Thousands of CFA francs)	YEAR 2 (Thousands of CFA francs)	YEAR 3 (Thousands of CFA francs)	YEAR 4 (Thousands of CFA francs)	YEAR 5 (Thousands of CFA francs)	YEAR 6 (Thousands of CFA francs)	YEAR 7 (Thousands of CFA francs)	YEAR 8 (Thousands of CFA francs)	YEAR 9 (Thousands of CFA francs)	YEAR 10 (Thousands of CFA francs)	TOTAL BUDGET (Thousands of CFA francs)
Acquisition of miscellaneous equipment (exploitation, mowing, conditioning, conservation, carts, mowers, bundling machines, straw axes, trailers, etc.).	15000000	15000000	15000000	15000000	15000000	15000000	15000000	15000000	15000000	15000000	150000000
Construction of sheds and storage warehouses for fodder and inputs	7500000	7500000	7500000	7500000	7500000	7500000	7500000	7500000	7500000	7500000	75000000
Development of forage plots	15000000	15000000	15000000	15000000	15 000000	15000000	15000000	15000000	15000000	15000000	150000000
Acquisition of inputs for fodder production	3750000	3750000	3750000	3750000	3750000	3750000	3750000	3750000	3750000	3750000	37500000
Training of producers on fodder production and conservation techniques	750000	750000	750000	750000	750000	750000	750000	750000	750000	750000	7500000
Training on financial management and accounting techniques	250000	250000	250000	250000	250000	250000	250000	250000	250000	250000	2500000
Subtotal	***42 550 000***	***42 550 000***	***42 550 000***	***42 550 000***	***42 550 000***	***42 250 000***	***42 250 000***	***42 250 000***	***42 250 000***	***42 250 000***	***424 000 000***
Implementation of 15 models of community-based veterinary services											
Support for the installation of 1500 private veterinarians (Subsidy, access to bank financing etc.)	3000000	3000000	3000000	3000000	3000000	0	0	0	0	0	15000000
Logistical support to public veterinary services (equipment, logistical means)	3600000	3600000	3600000	3600000	3600000	0	0	0	0	0	18000000
Construction of 750vaccination parks	2250000	2250000	2250000	2250000	2250000	0	0	0	0	0	11250000
Support for national livestock vaccination programmes in accordance with OIE recommendations (vaccine procurement)	3000000	3000000	3000000	3000000	3000000	0	0	0	0	0	15000000

Models/ Activities	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	TOTAL BUDGET
	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)
Support for epidemiological surveillance of livestock at the borders (construction of 15 quarantine centres)	600000	600000	600000	600000	600000	0	0	0	0	0	3000000
Subtotal	***12 450 000***	***12 450 000***	***12 450 000***	***12 450 000***	***12 450 000***	***0***	***0***	***0***	***0***	***0***	***62 250 000***
Setting up of 1500 agropastoral School fields											
Support for the training of certified trainers (50 per country, cohorts of 25and4 sessions)	360000	360000	360000	360000	360000		0	0	0	0	1800000
Support for the training of CEAP facilitators (120 per country, 2 sessions per facilitator, cohorts of 20)	180000	180000	180000	180000	180000	0	0	0	0	0	900000
Establishment and animation of agropastoral school Fields 45,000 breeders (cohorts of30),i.e. 500 sessions	750000	750000	750000	750000	750000	750000	750000	750000	750000	750000	7500000
Subtotal	***1 290 000***	***1 290 000***	***1 290 000***	***1 290 000***	***1 290000***	***750 000***	***750 000***	***750 000***	***750 000***	***750 000***	***10 200 000***
Implementation of a regional initiative of 3.3 million Artificial inseminations of local cows.											
Information and awareness-raising for beneficiaries	214286	214286	214286	214286	214286	214286	214286	0	**0**		1500000
Training of inseminator teams	1000000	1000000	1000000	0	0	0	0	0	**0**	**0**	3000000
Selection and identification of cows to be inseminated (fuel support to technical services)	75000	75000	75000	75000	75000	75000	75000	0	**0**	**0**	525000
Procurement of equipment (equipment for inseminators)	3333333	3333333	3333333	0	0	0	0	0	**0**	**0**	10000000
Acquisition of inputs (veterinary products)	4714286	4714286	4714286	4714286	4714286	4714286	4714286	0	**0**	**0**	33000000
Implementation of insemination operations (payment providers)	11785714	11785714	11785714	11785714	11785714	11785714	11785714	0	**0**	**0**	82500000

Models/ Activities	YEAR 1 (Thousands of CFA francs)	YEAR 2 (Thousands of CFA francs)	YEAR 3 (Thousands of CFA francs)	YEAR 4 (Thousands of CFA francs)	YEAR 5 (Thousands of CFA francs)	YEAR 6 (Thousands of CFA francs)	YEAR 7 (Thousands of CFA francs)	YEAR 8 (Thousands of CFA francs)	YEAR 9 (Thousands of CFA francs)	YEAR 10 (Thousands of CFA francs)	TOTAL BUDGET (Thousands of CFA francs)
Subtotal	***21 122 619***	***21 122 619***	***21 122 619***	***16 789 286***	***16 789 286***	***16 789 286***	***16 789 286***	***0***	***0***	***0***	***130 525 000***
Establishment of 65,000 family-type mini dairy farms											
Purchase of animals	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	2500000	25000000
Construction of infrastructure and equipment for mini Farms	32500000	32500000	32500000	32500000	32500000	32500000	32500000	32500000	32500000	32500000	325000000
Support for the selection of local dairy breeds	500000	500000	500000	500000	500000	500000	500000	500000	500000	500000	5000000
Subtotal	***35 500 000***	***35 500 000***	***35 500 000***	***35 500 000***	***35 500 000***	***35 500 000***	***35 500 000***	***35 500 000***	***35 500 000***	***35 500 000***	***355 000 000***
Establishment of 15,000 entrepreneurial intensive dairy farms											
Awareness-raising and networking meetings for stakeholders	150000	150000	150000	150000	150000	150000	150000	150000	150000	150000	1500000
Purchase of exotic animals	15000000	15000000	15000000	15000000	15000000	15000000	15000000	15000000	15000000	15000000	150000000
Infrastructure and farm equipment projects	15000000	15000000	15000000	15000000	15000000	15000000	15000000	15000000	15000000	15000000	150000000
Trainings	450000	450000	450000	450000	450000	450000	450000	450000	450000	450000	4500000
Subtotal	***30 600 000***	***30 600 000***	***30 600 000***	***30 600 000***	***30 600 000***	***30 600 000***	***30 600 000***	***30 600 000***	***30 600 000***	***30 600 000***	***306 000 000***
Support to dairy farm promoters for the group purchase of 500,000 exotic animals at regional level											
Purchase and transport of animals	35000000	35000000	35000000	35000000	35000000	35000000	35000000	35000000	35000000	35000000	350000000

Models/ Activities	YEAR 1 (Thousands of CFA francs)	YEAR 2 (Thousands of CFA francs)	YEAR 3 (Thousands of CFA francs)	YEAR 4 (Thousands of CFA francs)	YEAR 5 (Thousands of CFA francs)	YEAR 6 (Thousands of CFA francs)	YEAR 7 (Thousands of CFA francs)	YEAR 8 (Thousands of CFA francs)	YEAR 9 (Thousands of CFA francs)	YEAR 10 (Thousands of CFA francs)	TOTAL BUDGET (Thousands of CFA francs)
Information and awareness-raising meetings for beneficiaries	150000	150000	150000	150000	150000	150000	150000	150000	150000	150000	1500000
Strengthening the capacities of actors	150000	150000	150000	150000	150000	150000	150000	150000	150000	150000	1500000
Subtotal	***35 300 000***	***35 300 000***	***35 300 000***	***35 300 000***	***35 300 000***	***35 300 000***	***35 300 000***	***35 300 000***	***35 300 000***	***35 300 000***	***353 000 000***
COMPONENT2: Promotion and scaling up of techno-Economic entity models for the collection, processing and marketing of local milk	***60 690 000***	***60 690 000***	***60 690 000***	***43 690 000***	***43 690 000***	***0***	***0***	***0***	***0***	***0***	***218 450 000***
Setting up of 5000 multi-service collection centres for local milk											
Construction of infrastructure (reception hall, storage room, sanitary facilities, office, etc.)	5000000	5000000	5000000	5000000	5000000	**0**	**0**	**0**	**0**	**0**	25000000
Acquisition of equipment for collecting and storing fresh milk (cans, tanks, etc.)	5000000	5000000	5000000	5000000	5000000	**0**	**0**	**0**	**0**	**0**	25000000
Acquisition of rolling stock adapted to the areas (cart, bicycle, motorcycle, van, etc.)	2000000	2000000	2000000	2000000	2000000	**0**	**0**	**0**	**0**	**0**	10000000
Acquisition of consumables (packaging, milk testing products, fuel, etc.)	1000000	1000000	1000000	1000000	1000000	**0**	**0**	**0**	**0**	**0**	5000000
Training of beneficiaries on good practices	2000000	2000000	2000000	2000000	2000000	**0**	**0**	**0**	**0**	**0**	10000000
Subtotal	***15 000 000***	***15 000 000***	***15 000 000***	***15 000 000***	***15 000 000***	***0***	***0***	***0***	***0***	***0***	***75 000 000***
Settingup of 5000 mini dairies for processing local Milk											
Construction of infrastructure	2500000	2500000	2500000	2500000	2500000	***0***	***0***	***0***	***0***	***0***	12500000

Models/ Activities	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	TOTAL BUDGET
	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)
Acquisition of equipment	2500000	2500000	2500000	2500000	2 500000	***0***	***0***	***0***	***0***	***0***	12500000
Acquisition of inputs (packaging, closures, etc.)	200000	200000	200000	200000	200000	***0***	***0***	***0***	***0***	***0***	1000000
Training of beneficiaries on good practices	1000000	1000000	1000000	1000000	1000000	***0***	***0***	***0***	***0***	***0***	5000000
Acquisition of transport equipment (motorcycle, van, etc.).	2000000	2000000	2000000	2000000	2000000	***0***	***0***	***0***	***0***	***0***	10000000
Subtotal	***8 200 000***	***8 200 000***	***8 200 000***	***8 200 000***	***8 200 000***	***0***	***0***	***0***	***0***	***0***	***41 000 000***
Establishment of 1,500 SMI-SMEs processing local Milk											
Small and Medium Enterprises (SME) Installation Grant	3000000	3000000	3000000	3000000	3000000	***0***	***0***	***0***	***0***	***0***	15000000
Creation of collection points	15000000	15000000	15000000	15000000	15000000	***0***	***0***	***0***	***0***	***0***	75000000
Training of dairy farmers in good practices.	600000	600000	600000	600000	600000	***0***	***0***	***0***	***0***	***0***	3000000
Subtotal	***18 600 000***	***18 600 000***	***18 600 000***	***18 600 000***	***18 600 000***	***0***	***0***	***0***	***0***	***0***	***93 000 000***
Implementation of 150 innovation platforms for players in the dairy sector											
Support for the establishment of frameworks for stakeholder consultation	750000	750000	750000	750000	750000	***0***	***0***	***0***	***0***	***0***	3750000
Material and logistical support to OPEs	150000	150000	150000	150000	150000	***0***	***0***	***0***	***0***	***0***	750000
Organization of meetings between actors	240000	240000	240000	240000	240000	***0***	***0***	***0***	***0***	***0***	1200000
Training and capacity building of actors.	750000	750000	750000	750000	750000	***0***	***0***	***0***	***0***	***0***	3750000
Subtotal	***1 890 000***	***1 890000***	***1 890 000***	***1 890 000***	***1 890 000***	***0***	***0***	***0***	***0***	***0***	***9 450 000***

Models/ Activities	YEAR 1 (Thousands of CFA francs)	YEAR 2 (Thousands of CFA francs)	YEAR 3 (Thousands of CFA francs)	YEAR 4 (Thousands of CFA francs)	YEAR 5 (Thousands of CFA francs)	YEAR 6 (Thousands of CFA francs)	YEAR 7 (Thousands of CFA francs)	YEAR 8 (Thousands of CFA francs)	YEAR 9 (Thousands of CFA francs)	YEAR 10 (Thousands of CFA francs)	TOTAL BUDGET (Thousands of CFA francs)
Implementation of 15 models for networking the National territory into dairy basins and structuring around dairy industries.											
Setting up frameworks for consultation between stakeholders: awareness raising, information, etc.	5000000	5000000	5000000	0	0	0	0	0	0	0	15000000
Organization of meetings between actors	12000000	12000000	12000000	0	0	0	0	0	0	0	36000000
Subtotal	***17 000 000***	***17 000 000***	***17 000 000***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***51 000 000***
COMPONENT 3 : Promotion of an environment favourable to the development of the local milk sector	***5 825 000***	***5 825 000***	***5 825 000***	***5 825 000***	***5 825 000***	***4 475 000***	***4 475 000***	***4 475 000***	***4 475 000***	***4 475 000***	***51 500 000***
Establishment of 200 pastoral units to secure traditional extensive livestock farming systems											
Construction of hydraulic works (boreholes, pastoral wells, adductions, etc.)	3000000	3000000	3000000	3000000	3000000	3000000	3000000	3000000	3000000	3000000	30000000
Environmental and social diagnostic studies	1200000	1200000	1200000	1200000	1200000	0	0	0	0	0	6000000
Establishment and strengthening of management Committees	500000	500000	500000	500000	500000	500000	500000	500000	500000	500000	5000000
Subtotal	***4 700 000***	***4 700 000***	***4 700 000***	***4 700 000***	***4 700 000***	***3 500 000***	***3 500 000***	***3 500 000***	***3 500 000***	***3 500 000***	***41 000 000***
Support for the establishment of 15 livestock insurance systems for better security in dairy farming											
Raising awareness among stakeholders	**225 000**	**225 000**	**225 000**	**225 000**	**225 000**	**225 000**	**225 000**	**225 000**	**225 000**	**225 000**	**2 250 000**
Design of a livestock insurance model adapted to dairy production	**150 000**	**150 000**	**150 000**	**150 000**	**150 000**	**0**	**0**	**0**	**0**	**0**	**750 000**

Models/ Activities	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	TOTAL BUDGET
	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)	(Thousands of CFA francs)
Calamity Fund	750000	750000	750000	750000	750000	750000	750000	750000	750000	750000	7500000
Subtotal	***1 125 000***	***1 125 000***	***1 125 000***	***1 125 000***	***1 125 000***	***975 000***	***975 000***	***975 000***	***975 000***	***975 000***	***10 500 000***
TOTAL INVESTMENT	***304577 619***	***304 577 619***	***304 577 619***	***283 244 286***	***283 244 286***	***188 164 286***	***188 164 286***	***171 375 000***	***171 375 000***	***171 375 000***	***2 370 675 000***
COMPONENT4:Steering, coordination and facilitation of programme implementation	***60 915 524***	***60 915 524***	***60 915 524***	***56 648 857***	***56 648 857***	***37 632 857***	***37 632 857***	***34 275 000***	***34 275 000***	***34 275 000***	***463 935 000***
Establishment of the steering, coordination and management system for the programme											
Multi-stakeholder steering committee	3045776	3045776	3045776	2832443	2832443	1881643	1881643	1713750	1713750	1713750	23196750
Programme Coordination Team	24366210	24366210	24366210	22659543	22659543	15053143	15053143	13710000	13710000	13710000	185574000
PMU Operation	30457762	30457762	30457762	28324429	28324429	18816429	18816429	17137500	17137500	17137500	231967500
Regional Milk Observatory	3045776	3045776	3045776	2832443	2832443	1881643	1881643	1713750	1713750	1713750	23196750
Subtotal	***60 915 524***	***60 915 524***	***60 915 524***	***56 648 857***	***56 648 857***	***37 632 857***	***37 632 857***	***34 275 000***	***34 275 000***	***34 275 000***	***463 935 000***
TOTAL	**365 493 143**	**365 493 143**	**365 493 143**	**339 893 143**	**339 893 143**	**225 797 143**	**225 797 143**	**205 650 000**	**205 650 000**	**205 650 000**	**2 844 810 000**

4.3 Financing Plan

268. Budget revenue is expected from (i) the ECOWAS Commission, (ii) Member States, (iii) development partners (TFPs) and (iii) private investors, particularly in the collection and processing links of the local milk sector.

269. The Member States contribute mainly to the financing of investments. They are also responsible for the construction (outside the budget) of the basic infrastructure (access roads, hydrographic works (retention basins, canals, boreholes, etc.) necessary for the optimum exploitation of mini-farms, intensive farms, collection centres, mini-dairies, processing SMEs and innovation platforms.

270. The ECOWAS Commission contributes essentially to the mobilization of competence centres for the provision of information, training, ASPH advisory services, research and development, and facilitation of access to resources (credit, factors of production, markets) to breeders, pastoralists, collectors, processors and traders.

271. The TFPs provide their support in the framework of the cooperation agreements concluded with the States on the one hand and with the Commission on the other.

272. As for private investment, it contributes, in particular, to the intensification of livestock systems and the deployment of collection, processing and marketing units.

273. Budget implementation is planned on an annual basis, according to the programming set out in the table above.

4.4 Accounting and Financial Management procedures

274. The RAAF is responsible for budget and accounting management. Its financial procedures are thus applicable to the programme's resources.

5. Impact Analysis and Assessment

5.1 Economic Impact Analysis

275. The importance of the expected positive economic impact is commensurate with the many constraints removed through the implementation of the various techno- economic models that provide a harmonious framework for the development of dairy farming in the West African region.

276. Traditional livestock farming, the main activity and source of income for pastoralists and agropastoralists, will see its productivity and competitiveness improved, along with the remuneration of the farmer's labour and livestock capital, which will continue to play its role as a source of savings.

277. Innovative technologies implemented in the various links of the value chain make it possible to reduce production costs, create added value and improve the competitiveness of local milk in the face of competition from imported products.

278. The doubling of the current milk production capacity and the consequent increase in value creates added value to increase the income of rural producers who are the most vulnerable to poverty and malnutrition.

279. This increase in production is contributing to a significant reduction in imports of milk and dairy products, whose current level is having a negative impact on the trade balance of all countries in the West African region.

280. At the same time, the development of import-substitution, following the increase and development of local milk production, ensures greater security of supply for this product.

281. In addition to the expected increase in milk production, the programme will Outcome in additional production of more than 300 million tonnes of meat in the West African region.

282. The favourable environment created by the implementation of the programme activities should stimulate private investment in the dairy sector and, beyond that, in the livestock sector.

283. In total, more than three million farmers and other stakeholders will be impacted by the programme through the strengthening of technical, organizational and management capacities, as well as the professionalization of the various links of the local milk value chain.

284. In addition, almost 560 000 direct jobs will be created, many of them in new occupations brought about by the modernization of practices and the professionalization of those involved (fodder production and marketing, milk collection and transport, artificial insemination, etc.).

285. This emergence of new trades will benefit especially young people and women in rural areas, thus helping to curb the rural exodus.

5.2 Social and Environmental Impact Analysis

286. The Priority Investment Programme for the development of the local milk sector in West Africa includes activities (promotion of intensive milk production systems, development of processing units for locally produced milk) that can interact with the natural and human environment. It is thus necessary to assess the nature of the Outcoming effects (negative or positive impacts) in order to be part of a sustainable human development process that preserves natural resources and safeguards the socio-economic interests of the local communities concerned. The dual natural and social dimensions are thustargeted.

287. To this end, the methodological approach consists of (i) analysing the probable impacts of the programme on the natural and human environment, (ii) identifying the major determinants to be considered, and (iii) planning a preventive environmental monitoring mechanism, with a view to mitigating any probable negative effects of the programme.

5.2.1 *Analysis of likely impacts*

288. The analysis of the program's probable impacts on the environment is done here using the following matrix of interactions between the activities involved in setting up techno-economic models likely to impact the elements and various components of the natural and social environment

Table 7.1 - Matrix for analysing the programme's probable impacts on the environment

Environmental Elements		Instruments for the development of the local milk sector											
		Revolving Fund	*Fodder production*	*Local vet services*	*School fields*	*Mini Farms*	*Intensive farms*	*Collection Centres*	*Mini-dairies*	*SMI-SME*	*Innovation platforms*	*Territorial network*	*Inseminations*
Natural Environment (Biophysics)	Watercourses		■		■	■	■					■	
	Ground water		■		■	■	■					■	
	Air Quality							■	■	■	■	■	
	Fauna		■		■	■	■					■	
	Flore		■		■	■	■					■	
	Soil		■		■	■	■					■	
Human Environment (Socioeconomic)	Demographics Migration	■	■	■	■	■	■	■	■	■	■	■	■
	Uses and customs												
	Health and Hygiene							■	■	■	■	■	
	Economic activities	■	■	■				■	■	■	■	■	■
	Agricultural space												
	Urban space						■						
	Forest area					■	■						

Positive impacts ■ ■ Negative impacts

289. The matrix highlights the potential for degradation of water and soil resources through the programme's instruments for improving livestock systems for better milk productivity of local cows (field schools, mini-farms and intensive farms, land meshing). They may also be in conflict with the probable development dynamics of the mining sector. On the other hand, these instruments are factors in the revival of local economies that can slow down the migration dynamics of exodus and emigration. Intense farms can also produce nuisances in urban

areas. Intensive farms, on the other hand, are even supposed to be benign for the forest area by relying mainly on fodder crops and other animal feed.

290. As regards the instruments for developing the collection and processing links (collection centres, mini-dairies, small and medium-sized dairy farms, innovative platforms), their negative environmental impact is expected on air quality as well as on food hygiene and consumer health. They may also compete with possible mining expansion plans. However, they are vectors for local development and the fight against rural poverty (income generation and job creation opportunities).

291. Detailed studies of these likely environmental impacts will allow a better understanding of their physical, economic and social effects.

5.2.2 Determinants of Negative Impact Management

292. It appears that the management of environmental impacts requires the standardisation and monitoring of four main determinants: fodder production systems, animal husbandry systems, collection and processing systems and milk quality.

5.2.3 Prospective monitoring of the programme's environmental impact

293. Given the above-mentioned determinants, the preventive monitoring of the programme's environmental impact must cover (i) fodder production standards (tillage methods, quality of inputs, plant protection methods, agricultural water use methods, stock management methods), (ii) milk production standards (livestock feeding methods), (ii) the methods of collection and processing (e.g. modes of veterinary care, modes of milking, modes of milk storage, modes of barn maintenance, modes of residue management), (iii) collection and processing standards (e.g. modes of energy supply, quality of inputs, modes of inventory management, modes of maintenance of buildings and equipment, modes of transport), and (iv) milk quality management standards.

294. Preventive monitoring of environmental impacts must therefore aim at the continuous improvement of standards of production, collection, processing and preservation of milk quality.

6. Program Risk Mitigation

6.1 Assumptions and Risks

295. Based on the assumptions of success (desired conditions), the table indicates (i) the risks if these conditions are not met, (ii) the likelihood that the conditions will not be met, and (iii) the seriousness of the situation (fragility of the programme) if the assumptions do not occur.

Table 8.1 – Assumptions of Success and Program Risks

Assumptions of success	Risks	Probability of occurrence	Severity of occurrence
Regional decision-makers (ECOWAS Commission) take ownership of the programme and mobilize for its effective implementation.	Inefficiency of the programme steering system	Average	Very serious
	Failure of the Commission to make a financial contribution	Average	Very serious
National decision-makers (Member State governments) take owner ship of the programme and mobilize for its effective implementation.	Non-commitment of national stakeholder institutions	Low	Very serious
	Non-effectiveness of public investment and policy measures in favour of youth employability	High	Very serious
The TFPs take ownership of the programme and mobilize themselves for its effective implementation.	Insufficient financial resources for programme implementation	Average	Very serious
There is ample room for improvement in the milk Productivity of local cows.	Insufficient supplies of local milk to collection centres and dairies	Low	Very serious

Livestock farmers and pastoralists are widely adopting the alternative of forage production.	Lack of adequate feeding of dairy cows and, consequently, lack of adequate supply to downstream units in the chain	Average	Very serious
The quality of local milk has been greatly improved.	Lack of competitiveness of local milk on domestic and export markets	Average	Very serious
Imports of milk powder fall significantly	Lack of competitiveness of local milk on domestic and export markets	High	Very serious
The private sector is stepping up investment in the collection and processing of local milk	Insufficient development of the collection and processing links of the local Milk sector.	Average	Very serious

6.2 Plan and mitigation measures

296. For each risk identified, the mitigation plan shall indicate (i) the hedging mechanism or course of action to be taken in anticipation of the occurrence of the risk, (ii) the safeguarding strategy in the event of the occurrence of the risk, and (iii) the key officials who will be responsible for dealing with the situation of the need to implement the safeguarding strategy to enable the programme to redeploy in an alternative manner.

Table 8.2 – Program Risk Mitigation Plan and Measures

Risks	Coverage mechanism	Backup strategy	Responsible persons
Inefficiency of the programme steering system	Establishment of a monitoring-evaluation, periodic reporting, joint review and alert system	Accountability of the Specialized Council of Ministers Agriculture, Environment and Water Resources	ECOWAS Commission
Failure of the Commission to make a financial contribution	The Regional Fund for Agriculture and Food becomes operational	Organization of round tables and Business meetings	ECOWAS Commission
Lack of commitment of national stakeholder institutions	Creation of a directory of experts and specialists in the key areas of competence of the	Drawing on listed experts and specialists	Programme Coordination Team

Risks	Coverage mechanism	Backup strategy	Lead Agency
Non-effectiveness of public investment and policy measures in favour of youth employability	Regular conduct of ECOWAS missions at the top of regular sensitization of the governments of Member States	Advocacy campaigns of socio-professional youth organizations in the ASPH	ECOWAS Commission
Insufficient financial resources for programme implementation	The Regional Fund for Agriculture and Food becomes operational	Organization of round tables and business meetings	ECOWAS Commission
Insufficient supplies of local milk to collection centres and dairies	Improvement of the business environment in the sector Device for promoting private investment Improvement of transport and milk distribution infrastructure	Development of effective frameworks for public-private cooperation	Member States (Governments)

Lack of adequate feeding of dairy cows and, consequently, lack of adequate supply to downstream units in The chain	Promotion of efficient livestock farming systems based on forage production	Facilitating access to credit Development of Zoo technical research Development of the upstream sector	Programme Coordination Team
Lack of competitiveness of local milk on domestic and export markets	Safeguarding the nascent West African dairy industry.	Import regulation Fluidification of cross-border trade in local dairy products	Programme Coordination Team
Lack of competitiveness of local milk on domestic and export markets	Safeguarding the nascent West African dairy industry.	Import regulation Fluidification of cross-border trade in local dairy products	Programme Coordination Team
Insufficient development of the collection and processing links of the local milk sector.	Improvement of the business environment in the sector Device for promoting private investment Improvement of transport and milk distribution	Development of effective frameworks for public-private cooperation	Member States (Governments)

7. Appendices

Appendix 1: Synoptic sheets of the proposed techno-economic models

Table 2. Model of national revolving funds and mechanisms for sustaining and securing livestock inputs supply

Descriptive criteria	Description
Example of a mechanism for sustaining access to animal feed in Senegal	
Model features	• Objective: continued access for livestock producers to feed and other inputs at a reasonable price regardless of the time of year to eliminate seasonal speculation • Establishment of a seed fund and a sustainable self-sufficiency mechanism • Establishment of management committees chaired by the local administrative authority and including all stakeholders in all localities. • Construction of a storage warehouse • Feed is sold for cash at a 50% subsidized price. • Revenue is paid into a dedicated account managed by the farmers under the supervision of the administrative authority.
Benefits	• At the time of the evaluation carried out in 2016, 1.6 billion F CFA we repaid into the various accounts opened by the • Management Committees. • This mechanism has eliminated the high speculation on livestock feed in rural areas, especially in the dry season.
Difficulties encountered	• The long duration of orders at the plant level, which means that food sometimes arrives at times when people no longer need it. • Instability in the quality of feed supplied by manufacturers, Outcomeing in livestock producers not buying and stocks being lost or transferred to other areas when necessary. • The fund is eroding over time, Outcomeing in the sale of food at a subsidized price because of a lack of renewal of the allocated budgets.

Key success factors	• The organization of purchases by the breeders themselves who can choose the supplier and the type of feed, and the timing of orders • The definition of a clear and shared mechanism for the selection of beneficiaries • Supervision by the administrative authority and self-control by all actors • Training of recruited managers and capacity building of management committees • Strengthening by the State through other operations, if necessary, to prevent the disappearance of speculative funds.
Modalities of scaling up by the programme	• Adapt the model according to the experiences and commitment of actors in each country. • Extend the products or services accessible to other factors of production (veterinary products, small materials, packaging, etc.). • Formal commitment by States to support the process • Relying on professional organizations of experienced and structured grassroots breeders • Accompanying measures: capacity building trainings for actors and demonstration sessions on inputs.
Number by 2030	• 15 revolving funds • 750 feed stores built • 750 cooperatives installed (1 cooperative per store)
Unit cost	• Revolving Fund: 10 Billion FCFA/country • 15.000.000 F per store • Procurement of equipment: 15 billion per country • 20,000,000 F per cooperative
Total cost	• **408.75Billion FCFA**

Table 3. Entrepreneurial type forage production unit model

Descriptive criteria	**Description**
Example of Benin	
Model features	• Fodder production company (individual or collective) • Essential functions: production, packaging, preservation, marketing of fodder • Developed and fenced area of 20 ha • Irrigation network on15 ha • Operating and transport equipment: planters, seed drills, tractors, agricultural equipment, carts, trailers, etc. • Mowing and fodder conditioning/conservation equipment: mowers, bundling machines, straw choppers, forage harvesters, etc. • 1 Fodder shed • 1 input storage warehouse • 1 caretaker's lodge
Benefits	• New business in the value chain through training and capacity building of beneficiary promoters • Innovative model for the integration of young entrepreneurs • Ensures permanent availability of good forage in all seasons • Opens up good prospects for the emergence of green jobs.
Difficulties encountered	• Access to land • Access to credit for equipment and inputs • Beneficiaries' technical skills in fodder production and conservation

Key success factors	• Facilitating access to land for fodder crops • Facilitation of access to credit for the acquisition of equipment and inputs • Training of beneficiary promoters on fodder production and conservation techniques • Training of beneficiary promoters on financial management and accounting techniques.
Modalities of scaling up by the programme	• It is planned to produce 1,000 units per country, i.e.5, 000 units for the region. • Either 20,000 ha per country and 300,000 ha for the region. • Expected average forage production: 25 tonnes of DM/ha/year • Adaptation of the choice of species according to the environmental conditions (climate, soil, etc.) and market conditions • Setting up an adapted credit (campaign credit) • Synergy with the mechanism for sustaining and securing the supply of livestock inputs described above. • Term contracts will be encouraged with intensive livestock producers to strengthen the sustainability of the system.
Number by 2030	• 15,000 production units • 300,000 ha of farmland • 3 promoters on average per unit, i.e. 45,000 beneficiaries • 2,000 training sessions for producers • 150 facilitation and awareness-raising meetings with stakeholders
Unit cost	• 10.000.000 F / meeting organized • 500.000 F per ha developed • Subsidy up to 50% on the development and acquisition of equipment and inputs • 5,000,000 F per training session
Total cost	• **424 billion for the region**

Table 4. Community Veterinary Service Model

Descriptive criteria	Description
Example: Model for the installation of private veterinarians in Senegal	
Model features	• This model is part of the privatization of veterinary services in order to bring them closer to the people. • Support for the installation of private veterinarians throughout the country, through the granting of subsidies (logistical means, installation). • Delegation of the sanitary mandate: execution of annual vaccination campaigns, sero-surveillance and treatment of animal diseases under the supervision of the technical • Services of the State's animal husbandry department. • Carrying out artificial insemination campaigns under the supervision of the regional and departmental livestock services on a fee-for-service basis. • Training and supervision of para-veterinary auxiliaries in the conduct of their activities
Benefits	• Private veterinarians replace the State in its regalian role of epidemiological surveillance, treatment of diseases and supervision of livestock farmers, allowing better medical coverage of livestock. • Offers a close quality service to emerging modern operations in urban and peri-urban areas.
Difficulties of the model	• Delays in the payment of their bills by the State at the end of vaccination and artificial insemination campaigns • Delays in the transmission of declarations in the event of disease outbreaks for better management by the State • Insufficient resources of the technical services of the livestock sector for adequate monitoring of the services of private veterinarians delegated with the health mandate.
Key success factors	• Acceleration of the payment of private veterinarians' bills by the State • Facilitation of the acquisition of logistical materials by private veterinarians • Creation of conditions for better trust between private veterinarians and the technical services of the State.
Modalities of scaling up by the programme	• Regional harmonization of national legislation on the practice of the veterinary profession • Definition of a regional legislative and regulatory framework in this area
Number of Beneficiaries by 2030	• 1,500 private veterinarians installed (men and women) • 750 vaccination parks • 15 quarantine centres built
Unit amount of support	• 10.000.000 F / veterinary practice installed • 15.000.000 F / vaccination park built • 1.2 billion in support for veterinary services per country • 200.000.000F / quarantine centre
Estimated cost	• **66.250Billion FCFA**

Table 5 - Model of Agropastoral School Fields

Descriptive criteria	Description
FAO Agropastoral School Field Model	
Model features	• Participatory and inclusive approach according to the following steps: • Sharing and training session on the concept and approach as well as the acquisition of diagnostic tools • Identification of problems by breeders • Livestock farmers themselves through a participatory diagnosis • Restitution to the population of the Outcomes of the diagnosis and taking into account observations and amendments • Organization of learning fields for practice after theory sessions • Involvement of research in the process of validating technologies before they are popularized. • Examples of topics covered include: (i) manufacture of food and multi-nutritional blocks, (ii) fodder production and urea straw processing, and (iii) milk processing (curd, cheese, and yoghurt), etc. • After each training session, the facilitators carryout the multiplication at the level of the base population, more precisely in the pastoral units. • At the end of the training, the beneficiaries display their acquired know-how through demonstrations on the topics covered.
Benefits	• Model applicable to all large-scale technology dissemination activities in all areas of livestock production, processing, resource management, etc.).
Constraints	• Low logistic a land financial resources for the support of participants, trainers and demonstration products. • Targeting of beneficiaries and field activities according to agro-ecological zones • Low involvement of local authorities
Key success factors	• Involvement of local authorities • Define targeting criteria according to the nature of the field's activity • Motivation and involvement of the beneficiaries during the learning process
Modalities of scaling up by the programme	• To encourage ownership of the approach by all the actors and their involvement in the process • Give a prominent place to participatory diagnosis and the restitution of Outcomes • Adapt the approach to each target population and design appropriate guides
Number by2030	• 750 certified trainers trained • 1800 trained facilitators • 1,500 fields organized agro-pastoral schools • 45,000 beneficiaries trained
Unit amounts	• 15,000,000 F / training session for trainers • 5,000,000 F / training session for actors
Estimated cost	• **10.5 Billion FCFA**

Table 6 - Artificial Insemination Campaign Model

Descriptive criteria	Description
Examples: Artificial insemination campaigns in different countries	
Model features	• Elaboration of specifications for the beneficiaries and the insemination protocol • Choice and contractualisation with the inseminator teams • Information and awareness-raising for beneficiaries • Choice of breeds to be introduced in an inclusive approach with the beneficiaries • Training and equipment of inseminator teams • Identification and selection of cows to be inseminated according to the protocol • Identification of the subjects to be inseminated • Procurement of insemination inputs (de-wormers, hormones, small materials and other veterinary products) • Implementation of the1st passage operations: de-worming and heat induction, insemination itself. • Pregnancy diagnosis • Implementation of the 2nd passage operations: de-worming and heat induction, insemination proper • Report preparation
Benefits	• Rapid increase in the milk production potential of local cows • Creation of a frame work for the sustainability of the artificial insemination activity • Offering services to veterinarians working for private clients and setting up a network of qualified inseminators.
Difficulties encountered	• Beneficiaries' dissatisfaction with the choice of breeds • Non-compliance by the insemination teams with the insemination protocol. • Failure by farmers to keep cows to be inseminated and to set up fodder reserves • The lack of presentation of some inseminated cows when diagnosing pregnancy
Key success factors	• Awareness-raising, information and sharing campaigns with beneficiaries and other stakeholders • Inseminator training • Organization of the technical services responsible for supervision • Respect for the beneficiaries' choice of introduced breeds
Modalities of scaling up by the programme	• The rigorous identification of the dairy basins that can benefit from the operation • The choice of local and exotic breeds • Training and equipment of technical staff • De-worming, housing and proper feeding of candidate cows for insemination • Strict adherence to the insemination protocol by the different parties, • The implementation of accompanying measures such as training/awareness-raising for beneficiaries on animal husbandry, the establishment off odder reserves, etc., will be carried out by the Commission.
Number of by2030	• It is planned to train and equip 5,000 inseminators during the project period. • 3.3 million bovine artificial inseminations
Unit cost	• Average cost of insemination: 50,000 FCFA • Subsidy up to 50%,i.e. 25,000 FCFA
Total cost	• Artificial insemination benefits: 82.5 billion, • Logistics for supervision by technical services:37.5 billion • Accompanying measures for animalde-worming:30 billion euros • **Total amount: F CFA 130.525billion.**

Table 7 - Model of a mini-family dairy farm

Descriptive criteria	Description
Example: Mini family type dairy farm in Benin	
Model features	• The model has two variants: • (i)Mini-farm based on breeds of African origin (Azawak, Goudalli, ZebuMoor): 9 cows for natural breeding and 1 bull. • (ii)Mini-farm based on mixed-breed cows from artificial insemination campaigns:10 cows to be inseminated • Construction of a manure barn • Constitution of forage reserves
Benefits	• Model based on the traditional herd • Crucial step towards the intensification of milk production in traditional farming systems • Allows the traditional breeder to better understand the development prospects of his livestock, in the face of the environmental context and market realities. • Better valorisation of livestock capital and family labour force • Opportunities for the integration and professionalization of young people from pastoral and agro-pastoral areas • Development of the dairy potential of certain local breeds through selection and large-scale dissemination
Difficulties encountered	• Access to desired dairy breeds • Setting up appropriate infrastructures • Feeding livestock
Key success factors	• Selection of females to be distributed in the ECOWAS area. • Coupling ofthemodel with thetraditional system • Implementation of selection programmes for each of the targeted breeds before the best subjects are released. • Institutional support to Member States'technical services for monitoring
Modalities of scaling up by the programme	• Adaptation of the model to the context of each country after identification of beneficiaries' needs and analysis of comparative advantages • Purchase and distribution of improved local breeds of brood stock and females in an agro-pastoral environment • Development and implementation of national and regional genetic improvement plans for local breeds • Support for national orregional structures involved in the selection of local breeds and monitoring of animal performance (herd books, milk control)
Model features	• The model has two variants: • (i)Mini-farm based on breeds of African origin (Azawak, Goudalli, ZebuMoor):9 cows for natural breeding and 1 bull. • (ii)Mini-farm based on mixed-breed cows from artificial insemination campaigns:10 cows to be inseminated • Construction of a manure barn • Constitution of forage reserves
Benefits	• Model based on the traditional herd • Crucial step towards the intensification of milk production in traditional farming systems • Allows the traditional breeder to better understand the development prospects of his livestock, in the face of the environmental context and market realities. • Better valorisation of livestock capital and family labour force • Opportunities for the integration and professionalization of young people from pastoral and agro-pastoral areas • Development of the dairy potential of certain local breeds through selection and large-scale dissemination

Difficulties encountered	• Access to desired dairy breeds • Setting up appropriate infrastructures • Feeding livestock
Key success factors	• Selection of females to be distributed in the ECOWAS area. • Coupling of the model with the traditional system • Implementation of selection programmes for each of the targeted breeds before the best subjects are released. • Institutional support to Member States technical services for monitoring
Modalities of scaling up by the programme	• Adaptation of the model to the context of each country after identification of beneficiaries' needs and analysis of comparative advantages • Purchase and distribution of improved local breeds of brood stock and females in an agro-pastoral environment • Development and implementation of national and regional genetic improvement plans for local breeds • Support for national or regional structures involved in the selection of local breeds and monitoring of animal performance (herd books, milk control) • Support for the establishment of breed associations and the organisation of national and regional competitions on the quality and performance of selected animals • Implementation of the regional mass artificial insemination programme
Number of by2030	• 15000 mini farms type1 (local cows) • 50.000 mini farms type2 (mixed race) • Total: 65,000 mini farms
Unit cost	• Purchase of animals, 500,000 FCFA per head=25 billion FCFA • Strengthening of national structures: F CFA 5 billion • Infrastructure 65,000 mini farms, average cost at F CFA 5 million, or CFAF 325 billion for the programme.
Total cost	• **F CFA 355 billion.**

Table 8 - Entrepreneurial Intensive Dairy Farm Model

Descriptive criteria	Description
Example: ANIDA intensive dairy farm (Senegal)	
Technical and economic characteristics of the model	• This model of farm is an individual or collective farm aimed at young people or any other entrepreneur wishing to set up in the dairy sector. • Surface area: 2 ha fenced, including 1.5 ha under irrigation, a dairy barn for 10 exotic cows (jersey breed), as tore and a water point equipped with a solar pump (well or borehole). • A 1-hectare forage sole under irrigation • Diversification: market gardening, fruit trees and poultry farming • At the start, setting up a platform bringing together beneficiaries and institutional players (banks, credit unions, guarantee funds, agricultural insurance), to facilitate financing. • Recycling of organic waste, through composting, for a better durability of the model.
Benefits	• Average daily production: 12 litres of milk per day • Duration of lactation: 300 days, during the first three lactations • More than 100% increase in the workforce in 5 years • Income generated per cow: 2.500 FCFA per day • Control of the main common epizootics.
Constraints	• Insufficiency of allocated forage crop plots • Selection of the most appropriate forage species according to the holding • Low use of artificial insemination • Placing on the market of processed products • Lack of partnership with research for accompaniment.
Key success factors	• Commitment of the State • Beneficiary commitment • Involvement of technical services • Stakeholder platform set up prior to start-up that facilitated the funding
Modalities of scaling up by the programme	• Removal of identified constraints • Combine the model with the group purchase of heifers for the establishment of intensive or semi-intensive farms. • Resize the model by focusing more on milk production and increasing the area allocated to forage crops. • Consider rain-fed forage crops, where possible, to minimize irrigation costs. • Integrate storage, and even small-scale processing of milk in some cases • Reduce the cost of the model by scaling it down • Include in the financing plan a grant for investments and the purchase of animals. • Consider providing a bank loan to beneficiaries through local financial institutions.
Number of Beneficiaries to be promoted by 2030	• 15,000 farms to be created • 45,000 direct beneficiaries (men and women) • 9,000 training sessions for producers
Unit amount	• Infrastructure and equipment subsidy CFAF 10,000,000 per farm • Subsidy on purchase of animals: 1.000.000F / head • Training ofproducers;5.000.000 F / session
Estimated cost	• **306Billion FCFA**

Table 9. Animals Bulk Purchasing Model

Descriptive criteria	Description
Example: Model of animals bulk purchase by ANIPL in Senegal	
Technical and economic characteristics of the model	• Making the professional organisations responsible through an inter-professional organisation by signing a subsidy agreement with the State for the purchase of animals. • Organization of the purchase operation by the OPEs in the framework of a customer market under the supervision of the Ministry in charge of the livestock sector. • Provision by the State of an annual subsidy for the import of heifers • Payment of 50% of the cost by the beneficiary at the time of the order and the balance of the remaining amount on delivery. • Subsidy granted: 60% of the cost price.
Benefits	• A sharp drop in the price of heifers on acquisition • More transparency in the purchase and transfer of animals • Purchases more adapted to the needs • and choices of beneficiaries • Subjects made directly available to their owners after quarantine • Better purchasing and production planning.
Constraints	• Access to land for the establishment of farms and particularly for fodder crops • Absence or poor preparation of beneficiaries to build up food stocks and acquire small livestock and milking equipment • Difficulties in milk marketing for some producers.
Key success factors	• Voluntary subscription by beneficiaries • Advocacy for the acquisition of land and materials • Rapid constitution of a nucleus of cows with high dairy potential, • Better targeting of beneficiaries • Training of beneficiary producers in good dairy production practices (feeding and practice of fodder crops, reproduction, health of dairy cows...).
Modalities of scaling up by the programme	• Synergy with the other actions of the programme • Organizational and management capacity building and support for POs.
Number by 2030	• 500,000 animals disseminated (including150,000 in intensive entrepreneurial type farms) • 100,000 beneficiaries (men and women) • Capacity-building for 100,000 beneficiaries
Unit amount of Support (start-up allowance)	• Subsidy of 1.000.000FCFA/cow/beneficiary
Estimated cost	• **353Billion FCFA**

Table 10. Model of multi-service local milk collection centre

Descriptive criteria	Description
Example: Hamdallaye Uprolait Collection Centre	
Technical and economic characteristics of the model	• Polarizing centre of producers grouped in cooperatives for the maintenance of peri-urban dairy nuclei, while the other herds go on transhumance. • Centre activities: milk collection and marketing • The main functions of a multi-service collection centre include: o(i) the organisation of the collection of fresh milk, o(ii) quality control of the milk collected, o(iii) cooling of fresh milk, o(iv) short-term storage(morning), o(v) the industrial sale of milk, o(vi) the processing of marginal milk into yoghurt, o(vi) advisory support services offered by veterinary services and intermediaries: price negotiations with dairies, sale of animal feed, etc. • Collection points set up close to producers • The milk is at the collection point, then packaged in cans and transported on foot, bicycle or motorcycle to the centre by primary or secondary collectors. • The milk is checked, cooled to 4°C and stored for a short period of time until the large dairy comes to collect it with its vehicles.
Benefits	• Reduced transaction costs and better prices for the breeder, leading to an increase in turnover. • Better quality control of milk delivered to the dairy industry • Easier supply planning for the dairy industry • Good financial management tools provide reliable and usable statistical data.
Constraints	• Weak capacity of members for administrative and financial management • Insufficient capacity to negotiate the price of fresh milk with Industrial dairies. • Difficulties in complying with the clauses of contracts with industrial dairies • Seasonality of collection.
Key success factors	• Commitment by producers to join the system for the services offered, including veterinary monitoring and feed access • The price of a litre of milk well negotiated in advance and especially its increase over time • Standardization of the collected products to avoid wetting the milk.
Modalities of scaling up by the programme	• Setting up a framework for inter-professional consultation involving all the players in the sector • Definition of regulation mechanisms for the milk sector • Creation of a stalling fund to encourage the establishment of dairy nuclei next to the transhumant herd in traditional extensive livestock farms • Promotion of techniques allowing the use of locally available food supplements (cotton seeds, cotton cake, peanut husks, cereal bran, straw and other crop residues, fodder crops).
Number by2030	• 5,000 centres created • 500 breeders are polarized per centre, through primary and secondary collection points. • 2,500,000 breeders (men and women) • 5,000 training sessions for beneficiaries
Unit amounts per centre	• 5,000,000 F for infrastructure / centre • 5,000,000 F in materials per centre • 2,000,000 F of rolling stock per centre • 2,000,000 F per training session
Estimated cost	• **75 Billion FCFA**

Table 11. Model of local mini-milk processing plant

Descriptive criteria	Description
Example: Unit for processing local milk into Beninese Peulh cheese called Wagashi/Gasiré.	
Model features	• The activities developed are mainly targeted at women and revolve around training on improved milk processing techniques, for a better valorisation of local milk. • Livestock farmers also benefit from training in the production, conservation and storage of fodder, to improve productivity.
Benefits	• The implementation of this model makes it possible to add value to the milk produced locally by processing it into cheese, • which is the only alternative in view of the difficulties of disposal linked to the isolation of the locality (lack of access roads). • Each unit will process an average of 50 to100 litres of milk per day, i.e. a total of 250,000 to 500,000 litres per day (75to 150 million litres per year).
Difficulties encountered	• Lack of quality standards for traditionally processed products • Difficult access to quality packaging and other inputs (ferments, food, etc.) • Product marketing channels • Logistical means (carts, motorcycles, bicycles, etc.)
Key success factors	• Adequate equipment of mini dairies • Training and on-going re training of beneficiaries • Valorization of local know-how and improvement of practices • Labelling of local products • Setting up marketing channels for labelled products • Promotion of the quality approach
Modalities of scaling up by the programme	• The activities planned are: ○ Construction of mini dairies incompliance with standards (reception and storage of fresh milk, processing and packaging, storage of finished products, etc.). ○ Acquisition of suitable equipment for storage, processing, packaging and conservation (pasteurizers, containers, cooling tanks, refrigerators, soda bags, etc.). ○ Acquisition of inputs (packaging, closures, etc.) ○ Training of beneficiaries on good practices • Acquisition of transport equipment (motorcycle, van, etc.).
Number of by2030	• 5000 units
Unit cost	• Subsidy infrastructures:2.500.000 F / mini-dairy • Material subsidies: 2,500,000 F / minidairy • Inputs: 200.000 F / minidairy • Training on good practices:5.000.000 F / session • Subsidy for transport equipment:2.000.000F / mini dairy
Total cost	• **41billion FCFA**

Table 12. Model of SMI-SMEs for local milk processing

Descriptive criteria	Description
Example: Bilame Poul Debbo Breeding and Dairy Farm	
Technical and economic characteristics of the model	• A system based on barter "food for milk", according to a contract negotiated between the producers and the dairy that pre-finances the food. • Other service scan also be pre-financed by the dairy (school supplies, medical care, etc.) and paid at the next milk delivery.
Benefits	• Development of services to the breeder allowing to increase the number of members and the quantity of milk collected daily (from20litresat the beginning to 500 litres now). • Extension of the collection area and the collection system • (from one bike at the start, logistics has been increased to • 18 motorcycles,1 tricycle and 1 refrigerated van) • Diversification of processed products (curdled milk, yoghurt, cheese) to absorb the quantities of milk supplied.
Constraints	• Unavailability and low quality of feed in the dry season • Narrow local market to absorb production • Lack of cheeseripeners and distributors.
Key success factors	• Contractualisation and services to producers, • Loyalty of producers by honouring commitments (paying producers on agreed dates) • Mutual trust between the two parties.
Modalities of scaling up by the programme	• Synergize this model with the others already described. • Creation of collection points polarizing the collection centres • Integrate the promotion of fodder crops in the services offered by the dairy to secure cow feed and milk supply in the dry season.
Number by2030	• 1,500 SMI-SMEs (100 per country) • 5,000 collection points to be created for100 polarized breeders • 500,000 herders (men and women)
Unit amount per collection point	• Support for SMI-SMEs: 10,000,000 F / SMI-SMEs • 5,000,000 FCFA/collection point • Training ofbeneficiaries:2,000,000 F / SMI-SMEs
Estimated cost	• **93 Billion FCFA**

Table 13. Model of the innovation platform of the actors of the dairy sector

Descriptive criteria	Description
Example of partnership between LDB, APESS and COPEL of Dagana (Senegal)	
Technical and economic characteristics of the model	• Space for learning, exchanges, promotion of innovation and synergy of actions for the development of local milk value chains. • Groups to get her different type so factors: POs, dairy industry (LDB), food and input sellers, dairy equipment distributors, etc. • Services offered by the platform: (i)access to fodder (bush straw, sugar cane residues and fodder crops), (ii)access to livestock feed, (iii)capacity building for livestock breeders in • Different areas, (iv) access to financing, (v) access to genetic improvement, (vi) support for collection.
Benefits	• Creation of collection centres equipped with cooling tanks and development of milk transport by motorcycles, tricycles and refrigerated Lorries. • Promotion of the creation of mini dairy farms • Make 500 tonnes of feed and 600 tonnes of fodder available to 800 livestock farmers • Quantity of milk collected from member farmers: 1 million litres in the year • Cumulative purchases from livestock farmers: FCFA 1.2 billion • Creation of 1,000 jobs in the area.
Constraints	• Conflicts of interest between the different OPE members of the platform • Multiplicity of projects involving the same actors with different and sometimes contradictory approaches. • Competition from cheaper milk powder.
Key success factors	• OPE members well-structured and functional • Abolition of VAT on pasteurised milk allowing for an increase in the price paid to the producer • Adoption of emerging technologies by producers (fodder crops, etc.) • Good dynamics of exchanges between the players and a spirit of partnership developed so that everyone can benefit.
Modalities of scaling up by the programme	• Reinforcement of the organizational dynamics of the actors at the different levels of the value chain • Establishment of frame works for consultation between stakeholders to avoid conflicts of interest and harmonize approaches
Number by 2030	• 10 platforms per country with 10,000 members per platform • 1,500,000 beneficiaries (men and women) • 700 meetings • 50 training sessions • 150 supported FBOs
Unit amount	• Consultation frame works: 5,000,000 F / meeting • Training, capacity building of beneficiaries: 5,000,000F / session
Estimated cost	• **9.45billion FCFA**

Table 14. Dairy basin territory meshing and structuring model around dairy industries

Descriptive criteria	Description
Dairy basin structuring model in Nigeria	
Model features	• The model is built around 4 links: o(i)the "dairy pole" at the village community level, o(ii)the "dairy cooperative" made up of several" dairy poles", o(iii)the collection centre which groups together several "cooperatives" and o(iv)the dairy industry, which polarizes several collection centres. • The "Pôle laitier", as the village section of the dairy cooperative, has the task of pooling: o(i) the supply of factors of production livestock units, o(ii) access of livestock units to public services (extension, research, other), o(iii) access to credit, insurance and other financial services, o(iv) access of livestock units to private services (veterinary, other), o(v) the collection and delivery of milk to the dairy cooperative and any other services required by the livestock units. • The Dairy Cooperative offers mutual services to the dairy clusters (access to credit, insurance and other financial services, • Supply of production factors, technology transfer, technical advice, management services, etc.) and provides collection, marketing and payment to the livestock units. • The Collection Centre, with a capacity of between 5,000 and • 10,000 litres, centralises milk from collection points and livestock units for storage, marketing or delivery to the dairy industry. • The Dairy Industries, the driving force behind the system, buy milk from the collection centres, process it and go on to conquer national, regional and even international markets.
Benefits	• Synergy of actions between the different links • Facilitating the disposal of milk and milk products in rural areas • Producer Price Guarantee • Service of ferings (feed, veterinary services, etc.)
Difficulties encountered	• Taxation of raw milk collected by the dairy industry • Competition from imported milk, in particular milk powder • Insufficient support to mini dairies (equipment, accompaniment) • Seasonality of milk production in traditional systems
Key success factors	• The conditions for success include the establishment of pastoral reserves, facilitation of access to water ,pasture, feed and veterinary services, livestock equipment and inputs, promotion of fodder crops and their conservation, establishment of dedicated credit lines and support mechanisms for private investment, and fiscal measures conducive to the development of the dairy industry.

Descriptive criteria	Description
Modalities of scaling up by the programme	• A model of national network will be developed for each country in the ECOWAS region. • Its design will require broad consultations involving all the players in the value chain for the establishment of partnership projects between players and innovation platforms. • The planned activities are: • Supply of actors of production to livestock units • Access of livestock units to public services (extension, • research, other) • Access to credit, insurance and other financial services • Access of livestock units to private services (veterinarians, • others) • Collection and delivery of milk to the dairy cooperative and any other services required by the livestock units. • This model can present variants, depending on the productive capacity of the dairy basin, there could be, in particular, basins with mini, small and medium dairies or large dairy industries. • The scaling up of the model will be based on synergy with all other programme activities in each country.
Number of by2030	• 150 consultation frame works set up • 900 meetings organized
Unit cost	• 20,000,000 F / consultation frame work set up • 40.000.000 F per meeting
Total cost	• **51billion FCFA**

Table 15. Model of pastoral units for securing traditional extensive livestock systems

Descriptive criteria	Description
Example: Model of Pastoral Units in Senegal (PRODAM and PAPEL)	
Model features	• The Pastoral Unit (UP) is a geographical space centred on drilling where people living in the same land, in solidarity, with the same socio-economic interests, exploiting the same resources and using the same water points (ponds, boreholes, etc.) live.
Benefits	• The UP is a steering and facilitation tool enabling communities to carry out participatory and inclusive ere source management. • It provides the local community and its partners with an appropriate framework for intervention. • It enables the sustainable promotion of milk production in pastoral and agro-pastoral areas in terms of facilitating access to water and grazing. • It offers the conditions for better monitoring and optimal management of transhumance in general and cross-border transhumance in particular.
Difficulties encountered	• Delimitation of UP • Transhumance management • Compliance with management plans • Borehole break downs
Key success factors	• Adequate mesh size of borehole and livestock watering points • Establishment of general (roads, tracks, firewalls, etc.) and livestock infrastructures (vaccination parks, livestock stores, veterinary posts, etc.). • Implementation of a pastoral code at the local level • Breeders' organisation: UP Management Committee, drilling management

Modalities of scaling up by the programme	• ECOWAS countries should draw inspiration from it to further secure and improve the productivity of livestock in pastoral areas. • Activities: o Support for the construction of boreholes and pastoral wells o Support for the development of ponds and rainwater collection and retention basins o Support for the establishment of water supply networks in corridors of passage and transhumance.
Number of by2030	• 200 pastoral units (UP), i.e. 10 to 13 per country
Unit cost	• Construction of hydraulic works and other infrastructures: • 150.000.000F / UP • Diagnostic studies: 30.000.000 F / UP • Establishment and operation of management committees: • 25,000,000 F / UP
Total cost	• **41 billion FCFA**

Table 16. Livestock insurance model for better security of dairy farming

Descriptive riteria	**Description**
Example: National Agricultural Insurance Company of Senegal (CNAAS)	
Model features	• Outcoming from a Public/Private partnership, the Livestock Insurance must guarantee to the farmer, the payment of indemnities in case of mortality linked to the following risks: natural or accidental death and authorized slaughter. • Indemnity will be based on the market value of the animal at the time of loss, subject to the limit of liability specified in the policy's specific terms and conditions. • The compensation due in the event of a claim may not exceed 80% of the market value of the animal. • It is at most equal to 80% of the declared value. • Model adaptable to each country.
Benefits	• Livestock insurance is a risk management tool that, combined with other coping mechanisms, allows livestock producers to get back to business faster in the event of a loss. • It can be adapted to all farming systems, but requires effective communication to ensure that it is well perceived and appropriated by farmers who are convinced of its benefits. • It contributes to the collection of statistical data.
Difficulties encountered	• Appropriation by traditional breeders • Strict adherence to contractual clauses (claim declaration, etc.)
Key success factors	• Raising awareness among stakeholders • Diligence in compensation procedures • Assessment and compensation amounts
Modalities of scaling up by the programme	• The main aim will be to identify he needs and motivations of livestock farmers for livestock insurance in order to offer them relevant products. • Design of a livestock insurance product adapted to each milk production system in the different countries of the region. • The planned activities are: o Raising awareness of stakeholders on agricultural insurance o Design and development of livestock insurance models adapted to dairy production o Establishment of a disaster fund to support the public/private partnership (insurance companies) • Financing of activities and the disaster fund.
Number by2030	• 15 livestock insurance systems are set up or consolidated • 150 awareness meetings
	• 15 livestock insurance models are designed • 15 calamity funds are set up

Unit cost	• Awareness-raising meeting: 15,000,000 F / meeting • Livestock insurance model design: 50.000.000F / model • Disaster fund: 500,000,000F / country
Total cost	• **10.5billion FCFA**

Appendix 2: Programme Outcomes Framework

Table 17. Program Outcomes Framework

Program Outcomes Framework	
Overall Objective :	**Contributing to making West Africa a dairy basin of the continent**
SO 1: Promote and scale up models of techno-economic entities to improve the productivity of livestock systems.	**Outcome1.1:** Models for facilitating access to feed and veterinary services are scaled up;
	Outcome1.2: Models for improving the dairy potential of local cows are scaled up
	Outcome1.3: Intensive dairy farm models are scaled up in the West African region.
SO 2: Promote and scale up models of techno-economic entities for the collection, processing and marketing of local milk.	**Outcome2.1:** Functional multi-service collection centre models are scaled up in all the region's livestock basins.
	Outcome 2.2: Dairy processing unit models are scaled up in a dynamic of diversification, standardization and standardization of processed products.
	Outcome2: Models for the development of local milk markets are promoted
SO 3: Promote an environment favourable to the development of local milk sectors.	**Outcome3.1:** Public investment models improving the development potential of the local dairy sector are scaled up.
	Outcome3.2: Public policy measures favourable to the development of private entrepreneurship in the local milk sector are promoted.
SO 4: Provide leadership, coordination and facilitation of programme implementation.	**Outcome 4.1:** The programme steering, coordination, facilitation and management system is setup.

Appendix 3: Programme Logical Framework

Table 18 - Program Logical Framework

LOGIC OF THE INTERVENTION	TARGET	OBJECTIVELY VERIFIABLE INDICATORS	SOURCES/MEANS OF VERIFICATION	CRTICAL ASSUMPTIONS
General Objective **Contributing to making West Africa a dairy basin of the continent**	▪ Annual production of 10 billion litres of local milk in the regional area ▪ 25% of the milk processed in the different types of industries is from local production	▪ National and regional productions ▪ Quantities of local milk processed by milk processing industries	▪ National Annual Reports ▪ Milk Processing Industry Statistics ▪ Programme governance mechanism monitoring data ▪	▪ s Lack of reliable statistics ▪ Inadequate measures to protect and facilitate local production
<u>Specific Objective 1</u> **P**romote and scale up models of techno-economic entities to improve the productivity of livestock systems e	▪ Techno-economic models implemented in each country to improve the productivity of dairy farming systems Measures to Facilitate Access to Feed ▪ Mesures de facilitation de l'accès à l'aliment de bétail ▪ Creation of mini farms and intensive dairy farms ▪ Improvement of the performance of dairy breeds used	▪ Number of techno-economic models implemented in each country to improve dairy farming productivity systems ▪ Number of livestock feed access facilitation measures taken ▪ Number of mini farms and intensive dairy farms created ▪ Level of local dairy cows milk production	▪ Program governance mechanism annual reports ▪ Statistics ▪ Monitoring and evaluation ▪ Mid-year audit and evaluation reports	▪ Lack of reliable statistics ▪ Insufficient funding

LOGIC OF THE INTERVENTION	TARGET	OBJECTIVELY VERIFIABLE INDICATORS	SOURCES/MEANS OF VERIFICATION	CRTICAL ASSUMPTIONS
Specific objective 2 Promouvoir et mettre à l'échelle des modèles d'entités technico-économiques pour la collecte, la transformation et la commercialisation de lait local Promote and scale up models of techno-economic entities for the collection, processing and marketing of local milk	▪ Local milk collection network set up in each country ▪ Network of effective milk processing units in each country ▪ Local milk market organized	▪ Number of local milk collection networks set up in each country ▪ Number of operational milk processing units spread throughout the ECOWAS region ▪ Number of networked processing and collection units	▪ Program Governance Mechanism Annual Reports ▪ Monitoring and evaluation reports ▪ Statistics ▪ Mid-term audit and evaluation reports	▪ Lack of reliable statistics ▪ Insufficient funding
Specific objective 3 Promote an environment favourable to the development of the local milk sector	▪ Public investments favourable to the local milk value chain made ▪ Public policy measures put in place in favour of entrepreneurship	▪ Number of annual performance reports produced by the governance system over the period ▪ Number of joint review reports produced by the governance mechanism over the period	▪ Programme governance mechanism annual reports ▪ Statistics ▪ Monitoring and evaluation reports ▪ Mid-term audit and evaluation reports ▪ Rapports d'audit et d'évaluation à mi-parcours	▪ Lack of reliable statistics ▪ Insufficient funding
Specific objective 4 Ensure the steering, coordination and facilitation of the implementation of the programme	▪ Setting up a Steering Committee ▪ Building a regional coordination team ▪ Building a regional milk observatory ▪ Building national coordination teams	▪ Steering Committee Meetings Frequency ▪ Regional Milk Observatory Meetings Frequency ▪ Fréquence des réunions de l'observatoire régional sur le lait ▪ Number of members of the regional coordination team le ▪ Number of members of national coordination teams	▪ Programme governance performance reports	▪ Sufficient Financial Resources available

LOGIC OF THE INTERVENTION	TARGET	OBJECTIVELY VERIFIABLE INDICATORS	SOURCES/MEANS OF VERIFICATION	CRTICAL ASSUMPTIONS
Outcome1.1: Models for facilitating access to feed and veterinary services are scaled up	▪ 15 models for access facilitation to feed are in place ▪ At least 1 000 fodder production units shall be promoted ▪ 15 community veterinary services models are created ▪ At least 1 500 agro-pastoral field schools are organized	▪ Number of countries with a model in place to facilitate access to livestock feed ▪ Number of fodder production units created ▪ Number of private veterinary services settled ▪ Number of agro-pastoral field schools organized	▪ Programme governance performance reports	▪ Sufficient Financial Resources available ▪ Adherence and ownership of the model by the beneficiaries
Outcome 1.2: Models for improving the dairy potential of local cows are scaled up	▪ At least 3.3 million bovine artificial inseminations are carried out. ▪ At least 55,000 family mini dairy farms are established.	▪ Number of bovine artificial inseminations performed ▪ Number of crossbred heifers obtained ▪ Number of mini farms created	▪ Programme governance performance reports	▪ Membership and commitment of breeders ▪ Training, awareness raising for stakeholders ▪ Availability of resources
Outcome 1.3: Intensive dairy farm models are scaled up in the West African region.	▪ At least 15,000 intensive dairy farms are established ▪ At least 500,000 high producing dairy heifers are purchased in bulk and placed on intensive farms	▪ Number of intensive dairy farms established ▪ Number of dairy animals put into intensive farms	▪ Programme governance performance reports	▪ Membership and commitment of breeders ▪ Training, awareness raising of stakeholders Availability of financial resources
Outcome 2.1: Functional multi-service collection centre models are scaled up in all the region's livestock basins.	▪ At least 5,000 multi-service local milk collection centres are set up.	▪ Number of multiservice collection centres set up or consolidated	▪ Performance reports of the programme's governance mechanism	▪ Membership and commitment of breeders ▪ Training, awareness raising of stakeholders Availability of financial resources ▪ Financial resources availability

LOGIC OF THE INTERVENTION	TARGET	OBJECTIVELY VERIFIABLE INDICATORS	SOURCES/MEANS OF VERIFICATION	CRTICAL ASSUMPTIONS
Outcome 2.2: Dairy processing unit models are scaled up in a dynamic of diversification, standardization and Standardization of processed products	▪ At least 5 000 mini dairies processing local milk are set up. ▪ At least 1 500 SMI et SME mini dairies processing local milk are promoted	▪ Number of mini dairies processing local milk set up or consolidated ▪ Number of SMIs and SMEs created or consolidated	▪ Study report ▪ Programme governance performance reports	▪ Membership and commitment of breeders ▪ Training, awareness raising of stakeholders Formation, ▪ Financial resources available
Outcome 2.3: Models for the development of local milk markets are promoted	▪ At least 150 innovation platforms of local dairy industry players are promoted ▪ 15 models for networking the national territory into dairy basins and structuring around dairy industries have been set up	▪ Number of players' innovation platforms promoted ▪ Number of countries that have established a national network of dairy basins and structured around dairy industries	▪ Study report ▪ Programme governance performance reports	▪ Membership and commitment of breeders ▪ Training, awareness raising of stakeholders ▪ Availability of financial resource
Outcome 3.1: Public investment models improving the development potential of the local dairy sector are scaled up.	▪ At least 200 pastoral units are created ▪ 15 livestock insurance models are in place to secure dairy farming	▪ Number of pastoral units created ▪ Number of countries that have introduced livestock insurance to secure dairy farming	▪ Programme governance performance reports	▪ Membership and commitment of breeders ▪ Training, awareness raising of stakeholders ▪ Availability of financial resources
Result 3.2: Public policy measures favorable to the development of private entrepreneurship in the local milk sector are promoted	▪ The 15 States have taken public policy measures favorable to the development of the local milk sector ▪ The measures taken by ECOWAS promote private entrepreneurship in the dairy sector	▪ Number of countries that have taken public policy measures favorable to the development of the local milk sector ▪ Number of measures taken at the regional level to boost the development of private entrepreneurship in	▪ Performance reports of the program governance mechanism	▪ Political will

LOGIC OF THE INTERVENTION	TARGET	OBJECTIVELY VERIFIABLE INDICATORS	SOURCES/MEANS OF VERIFICATION	CRTICAL ASSUMPTIONS
		the local milk sector are promoted		
Outcome 4.1: The programme steering, coordination, facilitation and management system is set up.	▪ 5 annual sessions of the steering committee over the first five years of implementation	▪ Number of annual sessions held by the steering committee over the period	▪ Minutes of the Steering Committee sessions	▪ Availability of sufficient financial resources

Appendix 4: Performance Measurement Framework

Table 19 - Program Performance Measurement Framework

Objectives/Outcomes	Indicators	Baseline	Target	Data Source	Means of verification	Data collection method	Frequency of data collection	Responsible
General Objective: **Contributing to making West Africa a dairy basin of the continent**	Quantity of milk produced at regional level Quantity of local milk processed by the different	5 billion litres	10 billion litres	National and regional statistics Follow-up evaluation Studies	Annual Reports PV Steering Committee Evaluation reports	Monitoring-evaluation device Evaluations	Annual	Steering and Coordination Unit ECOWAS Commission WAEMU Commission
Specific objective1: Promote and scale up models of techno-economic entities to improve the productivity of livestock systems.	Number of technical-economic units scaled up	Reference situation	8technical- economic models are scaled down	National and regional statistics Follow-up evaluation Studies	Annual Reports PV Steering Committee Evaluation reports	Monitoring-evaluation device Evaluations	Annual	Steering and Coordination Unit ECOWAS Commission WAEMU Commission

Outcome1.1: Models for facilitating access to livestock feed and veterinary services are scaled up	□Number of revolving funds set up □Number of fodder production units □Number of private veterinarians installed	□Reference situation	□15 revolving funds □1000fodder production units □1500 private veterinarians □1500 school fields	□National and regional statistics □Follow-up evaluation □Studies	□Annual Reports □PV Steering Committee □Evaluation reports	□Monitoring-evaluation device □Evaluations	□Annual	□Steering and Coordination Unit □ECOWAS Commission □WAEMU Commission

Objectives/Outcomes	**Indicators**	**Baseline**	**Target**	**Data Source**	**Means of verification**	**Data collection method**	**Frequency of data collection**	**Responsible**
Outcome1.2: Models for facilitating access to livestock feed and veterinary services are scaled up	□Number of artificial inseminations performed □Number of mini dairy farms created	□Reference situation	□3.3million inseminations □55,000minifarms	□National and regional statistics □Follow-up evaluation □Studies	□Annual Reports □PV Steering Committee □Evaluation reports	□Monitoring-evaluation device □Evaluations	□Annual	□Steering and Coordination Unit □ECOWAS Commission □WAEMU Commission
Outcome1.3: Intensive dairy farm models are being scaled up in West Africa.	□Number of intensive Dairy farms established □Number of exotic	□Reference situation at the beginning of the intervention	□15,000farms □500.000animals	□National and regional statistics □Follow-up evaluation □Studies	□Annual Reports □PV Steering Committee □Evaluation reports	□Monitoring-evaluation device □Evaluations	□Annual	□Steering and Coordination Unit □ECOWAS Commission □WAEMU Commission
Specificobjective2: Promote and scale up models of techno-economic entities for the collection, processing and marketing of local milk.	□Number of technical-economic units scaled up	□Reference situation at the beginning of the intervention	□5techno-economic models to be scaled up for collection, processing and Marketing	□National and regional statistics □Follow-up evaluation □Studies	□Annual Reports □PV Steering Committee □Evaluation reports	□Monitoring-evaluation device □Evaluations	□Annual	□Steering and Coordination Unit □ECOWAS Commission □WAEMU Commission

Outcome2.1: Functional multiservice collection centre models are being scaled up in all the	Number of multiservice collection centres created	Reference situation at the beginning of the intervention	5,000collection centres	National and regional statistics Follow-up evaluation	Annual Reports PV Steering Committee Evaluation reports	Monitoring-evaluation device Evaluations	Annual	Steering and Coordination Unit ECOWAS Commission WAEMU Commission
Outcome2.2: Dairy processing unit models are scaled up in a dynamic of diversification, standardization and standardization of processed products.	Number of mini dairies created Number SMIs and dairy processing SMEs created	Reference situation at the beginning of the intervention	5,000mini dairies 1,500SME SMIs	National and regional statistics Follow-up evaluation Studies	Annual Reports PV Steering Committee Evaluation reports	Monitoring-evaluation device Evaluations	Annual	Steering and Coordination Unit ECOWAS Commission WAEMU Commission

Objectives/Outcomes	**Indicators**	**Baseline**	**Target**	**Data Source**	**Means of verification**	**Data collection method**	**Frequency of data collection**	**Responsible**
Outcome2.3: Models for the development of local milk markets are promoted	Number of innovation platforms set up Number of Countries that have established a national	Reference situation at the beginning of the intervention	150 innovation platforms 15countries	National and regional statistics Follow-up evaluation Studies	Annual Reports PV Steering Committee Evaluation reports	Monitoring-evaluation device Evaluations	Annual	Steering and Coordination Unit ECOWAS Commission WAEMU Commission

Specificobjective3: Promote an environment favourable to the development of the local milk sector.	Number of national initiatives Number of regional initiatives Cost of initiatives	Current situation (VAT on milk) 	2technical-economic models are scaled up Removal of all institutional constraints 	National and regional statistics Follow-up evaluation Studies	Annual Reports PV Steering Committee Evaluation reports	Monitoring-evaluation device Evaluations	Annual	Steering and Coordination Unit ECOWAS Commission WAEMU Commission
Outcome3.1: Models for the development of local milk markets are promoted	Number of Pastoral units created Number of countries with operational	Reference situation at the beginning of the intervention	200 pastoral units 15countries	National and regional statistics Follow-up evaluation Studies	Annual Reports PV Steering Committee Evaluation reports	Monitoring-evaluation device Evaluations	Annual	Steering and Coordination Unit ECOWAS Commission WAEMU Commission
Outcome3.2: Public policy measures favourable to the development of private entrepreneurship in the local milk sector are	Number of measures taken at the regional level Number of measures taken at the	Reference situation at the beginning of the intervention	ND	National and regional statistics Follow-up evaluation Studies	Annual Reports PV Steering Committee Evaluation reports	Monitoring-evaluation device Evaluations	Annual	Steering and Coordination Unit ECOWAS Commission WAEMU Commission
Specificobjective4: Ensure the steering, coordination and facilitation of the implementation of the	Number of steering committee meetings per year Number of	ND	Coordinating Teams Steering Committee Milk Observatory	Annual Reports Audit reports	PV Steering Committee Annual Reports PV Steering Committee	Audits Mid-term evaluations	Annual	Steering Committee ECOWAS Commission WAEMU Commission

Objectives/Outcomes	**Indicators**	**Baseline**	**Target**	**Data Source**	**Means of verification**	**Data collection method**	**Frequency of data collection**	**Responsible**
Outcome4.1: The programme steering, coordination, facilitation and management system is set up.	The Steering Committee is operational The Coordination Unit is	ND	Coordinating Teams Steering Committee Milk Observatory	Annual Reports Audit reports	PV Steering Committee Annual Reports PV Steering Committee	Audits Mid-term evaluations		

Appendix 5: Estimated production and expected milk collection and processing capacities

Table 20 – Estimated production and expected milk collection and processing capacities

MODEL	MILK PRODUCTION (Thousands oflitres)	COLLECTION AND PROCESSING (Thousands oflitres)	JOBS CREATEDS (figures)	OTHER INDUCED EFFECTS
Establishment of 15 national revolving funds and mechanisms to ensure the sustainability and security of supply of livestock inputs.	1000000		2250	Securing the supply of inputs and economies of scale that can reduce production costs and thus competitiveness
Establishment of 15,000 entrepreneurial fodder production units	500000		45000	Lower production costs
Implementation of 15 models of community-based veterinary services	500000		6000	Improving the safety of food of animal origin
Setting up of 1500 agro-pastoral school fields	500000		45000	Leverage effect on 500 thousand affected producers
3.3 million Local cows. artificial insemination regional initiative set up	162000		45000	Meat production increased by 200 million tonnesby the breeding males
Establishment of 65,000 family-type mini dairy farms	1080000		195000	Additional meat production of 100 million tonnes per year from cull female cows and fattened males
Establishment of 15,000 entrepreneurial intensive dairy farms	549000		60000	Additional meat production: 2100 tons. Contributes to the expansion of family mini-farms through the dissemination of male dairy breeds
Support for dairy farm promoters to make a bulk purchase of 500,000 exotic animals at regional level	1440000		70000	Allows to impulse the creation of farms of variable dimensions (mini, small, medium and large)
Setting up of 5000 multi-service collection centres for local milk		7500000	50000	Facilitation of access to certain services: purchase of food and inputs, provision of credit, etc.).
Setting up of 5000 mini dairies for the processing of local milk		150000	15000	Creation of added value for local products and know-how
Establishment of 1,500 SMI-SMEs for local milk processing		1090000	9000	
Implementation of 150 innovation platforms for players in the dairy sector	750000	750000		Structuring and professionalization of actors
Implementation of 15 models of national networking for dairy basins and dairy industries organization.	1000000	1000000		Structuring and professionalization of actors
Implementation of 200 pastoral units for securiing traditional extensive livestock farming systems	1440000			Sustainable management of natural resources and improving resilience to poverty
Support for the establishment of 15 livestock insurance systems for a better securing dairy farming	750000		15000	Stimulating private investment
TOTAL	**9671000**	**10490000**	**557250**	

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